

Committee For The Environment Inquiry into Climate Change Volume One

TOGETHER WITH THE MINUTES OF PROCEEDINGS, MINUTES OF EVIDENCE AND WRITTEN SUBMISSIONS RELATING TO THE REPORT

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Membership and Powers

The Committee for the Environment is a Statutory Departmental Committee established in accordance with paragraphs 8 and 9 of the Belfast Agreement, section 29 of the Northern Ireland Act 1998 and under Standing Order 46.

The Committee has power to:

- Consider and advise on Departmental budgets and annual plans in the context of the overall budget allocation;
- Consider relevant secondary legislation and take the Committee stage of primary legislation;
- Call for persons and papers;
- Initiate inquiries and make reports; and
- Consider and advise on any matters brought to the Committee by the Minister of the Environment

The Committee has 11 members including a Chairperson and Deputy Chairperson and a quorum of 5.

The membership of the Committee since 9 May 2007 has been as follows:

Mrs Dolores Kelly (Chairperson) 6
Mr Cathal Boylan (Deputy Chairperson)

Mr David Ford Mr Adrian McQuillan 7
Mr Ian McCrea Mr Alastair Ross 1
Mr Peter Weir Mr Daithi McKay
Mr John Dallat 5 Mr Danny Kinahan 3,4
Mr Roy Beggs 2

1 From January 21 2008, Mr Alastair Ross replaced Mr Alex Maskey on the Committee for the Environment.

2 With effect from 15 September 2008 Mr Roy Beggs replaced Mr Sam Gardiner.

3 With effect from 29 September 2008 Mr David McClarty replaced Mr Billy Armstrong

4 With effect from 22 June 2009 Mr Danny Kinahan replaced Mr David McClarty

5 With effect from 29 June 2009 Mr John Dallat replaced Mr Tommy Gallagher

6 With effect from 3 July 2009 Mrs Dolores Kelly replaced Mr Patsy McGlone

7 With effect from 17 September 2009 Mr Adrian McQuillan replaced Mr Trevor Clarke

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Executive Summary

Purpose

Members of the Committee selected climate change for the subject of its first inquiry because they recognised its potential to impact in many ways on society today and long into the future.

The Committee agreed the aim and terms of reference of the inquiry at its meeting on 15 January 2009 with the purpose being:

"To understand the implications of climate change for Northern Ireland and to make recommendations on government policies, in line with the Committee's earlier response on the UK Climate Change Bill, to mitigate the impacts of climate change, examine economic implications and identify suitable adaptation initiatives."

Evidence Gathering

The Committee was presented with 45 written submissions and agreed to take oral evidence from 24 organisations, businesses and individuals.

Key Issues

During the evidence gathering stage it became apparent that there were a number of specific areas of concern which organisations were raising within the terms of reference and on 2 July 2009 the Committee agreed that the report should focus on the following key issues:

- Legislation and policy
- Targets and budgets
- Structures and Accountability
- Costs
- Sectoral targets and action
- Additional specific actions

Current policy position on climate change in Northern Ireland

The Committee recognised that all government departments have a contribution to make to addressing climate change. The Committee wrote to all government departments to establish to what extent they considered the Performance Service Agreements for which they have responsibility impacting, either negatively or positively, on climate change targets. While most departments demonstrated that they recognised the potential for some of their policy areas to impact on climate change targets, this tended to focus on policies that have a positive impact rather than those that have the potential to be negative.

Policy Development

The Committee agreed that Northern Ireland should produce, as soon as possible, its own Climate Change Implementation Strategy which should encompass both mitigation and adaptation. (See Recommendation 1)

Legislation

The Committee considered the legislative approaches being adopted in other jurisdictions and agreed that it was important to set climate change targets for Northern Ireland. However the Committee felt that enshrining targets into legislation in Northern Ireland in the short term would be premature in the absence of sufficient local information available to inform the required target levels. Primary legislation should be considered for medium and longer term targets. (See Recommendations 2, 3)

Co-ordination of action

The Committee agreed that in addition to climate change being included in the British Irish Council remit, there should be greater co-operation on climate change between Northern Ireland and the Republic of Ireland (See Recommendation 4)

Climate / Carbon impact assessments

The Committee agreed that all new policies should be screened for impact on climate change targets and obligations. The Committee did not feel it had been provided with sufficient information to make a decision on the mechanism for screening except that it should reflect positive as well as negative contributions. (See Recommendation 5)

Northern Ireland Targets

The Committee agreed that Northern Ireland should make a fair and proportionate contribution to UK greenhouse gas emission targets. It agreed this should be achieved by Northern Ireland urgently setting its own targets for greenhouse gas emissions. In addition to long term targets, Northern Ireland should set short and medium term targets on an annual or rolling basis.

Members noted the importance of Northern Ireland's targets being underpinned by sound local research at sectoral level. The research should provide sufficient information for setting challenging but achievable Northern Ireland-wide targets enabling sectoral adjustments to be made where necessary due to local circumstances. The targets should encourage attitudinal

change but also reflect where the most cost-effective reductions can be made. (See Recommendations 6, 7)

Sector Specific Targets

The Committee was keen that as much information as possible is used to inform target setting in Northern Ireland and that this should be carried out at sectoral level. The Committee agreed that specific emission reduction targets for individual sectors should also be set when the necessary information becomes available and that obtaining this information should be deemed a top priority. (See Recommendation 8)

Role of the Committee on Climate Change in Northern Ireland

The Committee agreed that Northern Ireland government should access the mechanism available for seeking advice and assistance from the Committee on Climate Change in setting sectoral specific budgets, targets and action plans specific to Northern Ireland. All Departments should be encouraged to seek relevant sectoral advice from the Committee on Climate Change but liaison should be led and coordinated by the department with responsibility for climate change policy.

The department with responsibility for climate change policy should also develop a mechanism for making sure information provided by the Committee on Climate Change is suitable for local use. (See Recommendation 9)

Role of the Met Office in Northern Ireland

The Committee agreed that Northern Ireland government should take up the MET Office's offer and seek assistance in the establishment of targets and budgets for Northern Ireland. (See Recommendation 10)

Reporting Mechanisms

The Committee agreed that the Committee on Climate Change should be asked to compile and submit annual reports on Northern Ireland's progress against its targets to the Northern Ireland Executive and Assembly and that the Executive should respond to the reports in the Assembly. (See Recommendation 11)

Government Structures – Delivery

The Committee agreed that the forthcoming Efficiency Review should be used as an opportunity to look at the most appropriate position for climate change policy within the Northern Ireland government structure and that it should recommend that the Executive should take cognisance of the approach being taken in the other UK jurisdictions when making its decision.

However Members noted their concern that the outcome of this Review could be several years away and emphasised the importance of ensuring that climate change is adequately addressed and effectively scrutinised within Northern Ireland government in the interim. It agreed that this would be most likely achieved by DOE retaining its remit for climate change policy and delivering it through its Climate Change Unit but that the role of this Unit should be expanded requiring it

to be more proactive across government and given more responsibility for the actual delivery of climate change objectives.

The Committee recognised the risk posed by existing legislation in terms of meeting forthcoming climate change objectives and suggested that a cost-benefit analysis of all Public Service Agreements should be carried out to assess potential impact on climate change objectives. (See Recommendations 12, 13)

Government structures – Scrutiny

Members accepted the merit of introducing a specialised cross-cutting committee dedicated to look at climate change across all departments, as seen in Westminster's Environmental Audit Committee, Wales's Sustainability Committee and the Joint Oireachtas Committee on Climate Change and Energy Security.

However, concern about the capacity of the Assembly to introduce and service another committee of elected members and the likelihood of a departmental restructure negating the need, deterred the Committee from calling for a similar cross-departmental committee to be established in Northern Ireland.

Members noted that in the event of the Efficiency Review deciding to co-locate climate change policy and energy within a single department, the scrutiny role of the equivalent Statutory Assembly Committee would be likely to fulfil this role. In the interim it must continue to be carried out by the Committee for the Environment. The Committee recognised that this structure, which represents the status quo, is limited in its ability to perform cross-cutting scrutiny of other departments and suggested that the scrutiny process should be added to the remit of the Northern Ireland Audit Office (NIAO). Directly akin to the current arrangement for overarching financial scrutiny, the Committee believes that the NIAO should be given the remit and resources to undertake the specialist role of detailed assessment and reporting on the achievement of climate change targets across government. The NIAO would report to the Assembly Public Accounts Committee but its reports would also be available for the Environment Committee to scrutinise more closely should it be necessary. (See Recommendations 14, 15)

Role of Government

The Committee agreed that Northern Ireland government should show leadership in addressing climate change in a way that recognises the importance of retaining economic stability. Members want to see a coherent, strategic and holistic approach to policy-making that gives the right priority to climate change and establishes a fair and level playing field to business and industry.

The Committee believes the government should adhere to its commitment to achieve a carbon neutral estate by 2015. It should also urgently prepare an action plan with for achieving it with targets for its delivery. (See Recommendation 16)

Role of DOE Climate Change Unit

The Committee believes that DOE's Climate Change Unit has a crucial role in coordinating action across the range of government departments affected by climate change. Members want to see the Unit remain intact and whether it is housed within DOE or moves to another department post the Efficiency Review, the Committee would like to see the Unit provide information across government and support and advice to all other departments. It should take the lead in liaising with the Committee on Climate Change on behalf of Northern Ireland government and have a

co-ordinating role of the information provided. The Committee would also like to see it develop and deliver a climate change awareness campaign aimed at changing behaviour and take the lead in developing the adaptation strategy. (See Recommendation 17)

Delivery Mechanisms including delivery of carbon commitments

The Committee was concerned that the department that is currently tasked with climate change policy does not have overall responsibility for climate change in Northern Ireland and sees itself merely as a 'conduit' for climate change information. The Committee did not so much see a need for a 'ministerial champion' for climate change as the Minister for the Environment being given full responsibility for climate change for so long as climate change policy remains the remit of his department. Members were concerned that at the moment individual departments appear to be liaising with their equivalent departments in other jurisdictions in disparate ad hoc ways when a more coordinated approach led and orchestrated by DOE could be much more constructive in delivering Northern Ireland's targets and objectives. (See Recommendation 18)

Public procurement

The Committee agreed that the public procurement process offers opportunities for government to establish and demonstrate good practice and that these should be maximised. Northern Ireland's short, medium and long term emissions reduction targets should be incorporated into best practice guidance and tenders prioritised accordingly.

The Committee recognised the economic potential for Northern Ireland of this approach but noted the need for caution in relation to EU single market laws.

Members also noted the importance of avoiding 'perverse' outcomes as a result of more stringent standards for procurement. (See Recommendation 19)

Role of the Planning System

The Committee recognised the importance of the role of the Planning System in preparing Northern Ireland for a low carbon future.

The Committee welcomed the Department's proposals to extend permitted development rights for micro-renewable energy generation accordingly.

Members recognised that all new planning policy statements are now required to take climate change impacts into consideration. Nonetheless they felt that it was now time for a specific Planning Policy on Climate Change to be developed that would, among other things, guide where new development should occur and what measures should be adopted to reduce carbon footprints. The Committee called for this to be developed with urgency.

The Committee also recognised that local government would soon be commencing new area plans and that they should be required to incorporate measures to reduce greenhouse gas emissions in these plans. (See Recommendations 20, 21)

Role and Responsibilities of Local Authorities

The Committee remained unconvinced that the new council areas in Northern Ireland should be required to have their own greenhouse gas emission reduction targets. Nonetheless the Committee believes that local authorities are an important driver and have a significant role to play in delivering climate change objectives at local level and urges central government to provide advice and guidance urgently on what is required and how it should be done.

The Committee would also like to see local authorities act as local exemplars of good practice in areas such as energy efficiency, use of renewable technology and community heating schemes. It suggests local authorities set challenging and achievable targets for their own activities such as energy efficiency and renewable energy sources. In addition opportunities for providing local centralisation of services that reduce individual carbon footprints should be maximised, for example, the provision of healthcare in the same municipal building as a pharmacy and a post office. (See Recommendations 22, 23)

Investment and Innovation

The Committee was particularly keen to see more opportunities being made available to address climate change through cross-border and European funding, such as Special EU Programmes Body, Rural Development and EU Life+ funding. (See Recommendation 24)

Costs

The Committee noted that very few of the submissions to the inquiry provided detailed local information on costs in relation to climate change. Members saw this as a considerably important aspect of the inquiry and in the absence of sufficient information to come to any significant conclusion, agreed to commission its own research into the cost implications of addressing climate change in Northern Ireland.

Members agreed that a combination of incentives and penalties would be required to drive behavioural and attitudinal change and felt that government in the first instance should be looking at options that offered relatively short payback times and/or multiple solutions, e.g. the warm homes scheme. Members also noted that the likely high cost of oil in the future should be factored into decisions.

Members recognised that amendments had been made to rates in Northern Ireland since evidence had been submitted to the inquiry and that these addressed some of the incentives proposed by the business sector. The Committee welcomed these.

The Committee also welcomed the mechanisms and approach proposed for private and public sector funding for the Green New Deal. The Committee sought updated information on the Green New Deal's progress and was advised that progress is slow but all parties are still working together to develop the approaches identified. The Committee acknowledged the constrained economic times but stressed the importance of progressing the Green New Deal across all relevant government departments seeing it as an opportunity to avoid paying much larger costs later. (See Recommendations 25, 26, 27)

Energy – Domestic

The Committee welcomed the introduction of parity of building standards between the private and social housing sectors that has taken place since evidence was provided to the Committee during its inquiry. However, it stressed the importance of these buildings standards being at a sufficiently high level to ensure that new houses will be able to meet the demands required by

future targets in their lifetime because at best, retrofitting is a costly option and not always possible. Members noted that the Republic of Ireland was introducing even higher standards than those proposed in Northern Ireland and suggested that current proposed standards should be revisited by DFP and increased and brought forward where necessary.

The Committee welcomed proposals for permitted development rights to be extended to cover micro-renewable energy generation and suggested that further incentives should be introduced to improve building standards and encourage renewable energy initiatives where possible with the advantage that they also contribute to alleviating fuel poverty.

The Committee also welcomed suggestions that all electrical appliances should be required to display their energy usage in a labelling scheme akin to that currently used for white electrical goods so that consumers could factor the long term energy costs into their purchasing decisions. (See Recommendations 28, 29, 30)

Energy efficiency – business

The Committee welcomed the amendments that have been made to Northern Ireland rates to incentivise energy efficiency during the course of this inquiry. The Committee also suggested that in addition to incentives Northern Ireland government should also look at the introduction of penalties for businesses and industries that persistently fail to improve their energy efficiency. (See Recommendation 31)

Energy efficiency – public sector

The Committee agreed that it is important for government to show leadership and that it should set an example by adhering to its commitment to achieve a carbon neutral estate by 2015 and urgently prepare an action plan with targets for its delivery that will avoid the high costs of offsetting.

The Committee was concerned however that each department appeared to be taking its own route towards improving efficiencies and considered that a more coordinated approach would be constructive. The Committee suggested that this might be delivered in a more cost effective way by utilising guidance from the expertise of organisations like the Carbon Trust rather than appointing non-specialists to work in isolation within each department. (See Recommendation 32)

Renewable energy

The Committee was aware that during the process of this inquiry DETI produced a comprehensive review of renewable energy in Northern Ireland. The Committee welcomed this initiative and made any concerns arising from this inquiry known to DETI during its consultation. The Committee was particularly concerned about barriers currently deterring small renewable energy projects in particular the role of planning, the grid infrastructure and connection charges and feed-in tariffs. The Committee welcomed proposals to look at support mechanisms for heat as well as electricity. (See Recommendations s 33, 34, 35, 36)

Transport

The Committee agreed that transport is a key area that must be addressed but Members were very aware of the difficulties of doing this in a dispersed settlement pattern like that found in Northern Ireland. Members stressed the importance of the Regional Development Strategy in the

development of a better public transport system and suggested the balance of funding between public and private transport should be revisited. Members welcomed the forthcoming inquiry into sustainable transport announced by the Regional Development Committee.

While improving and making public transport more accessible was seen as vital the Committee acknowledged that this would only address problems in urban areas. In rural areas other innovative ideas should be investigated such as sharing transport for carriage of goods and community transport schemes such as those being mooted in conjunction with proposals to lower the blood alcohol limits. In the same vein, the Committee was interested in the proposals being developed in the Republic of Ireland to electrify transport and introduce a portable electric storage scheme. While the Committee felt that the emphasis at this stage should be on public transport it agreed that the Republic's electrification scheme was innovative and its progress should be monitored. (See Recommendations 37, 38)

Waste

The Committee believes that the public are now sufficiently aware of the importance of waste in relation to carbon footprint but that more needs to be done to facilitate and incentivise attitudinal and behavioural change. The Committee suggests that DOE leads on the development of measures to address this but that they are delivered by local authorities.

The Committee is concerned that in the absence of immediate action reduced landfill targets will not be met. EU fines will be costly to the Northern Ireland purse in the first instance but ultimately will be borne by ratepayers. Members therefore suggested that the focus of awareness-raising among the public is on the risk of fines and that these will ultimately impinge on rates. The Committee felt that local authorities should be encouraged to introduce more proactive measures to encourage better separation of waste streams and recycling and suggests that graduated penalties, from warning notes to fines, be introduced for persistent irresponsible behaviour.

The Committee also calls on local authorities to look at new ways to support businesses, particularly small and medium enterprises, in improving their waste management. (See Recommendations 39, 40)

Agriculture, Forestry and Food

The Committee recognised the importance of the agri-food sector to the Northern Ireland economy and agreed that whilst greenhouse gas emission reduction targets should be set for this sector, these will probably be proportionately lower than other sectors, which will be required to compensate accordingly. There should also be recognition of potential perverse outcomes that may arise if emission reduction targets are the sole focus and the Committee urges that decisions are made in a balanced way that recognises the range of benefits provided by Northern Ireland's agricultural production systems.

The Committee welcomed the wealth of information provided by DEFRA's Rural Climate Change Forum and would like to see its influence extend further into Northern Ireland or preferably, if feasible, an equivalent advisory body established for Northern Ireland by DARD, DOE and DETI.

The Committee noted the importance of the forthcoming Rural White Paper and stressed the importance of reflecting the impact that climate change mitigation and adaptation will have on rural dwellers in general as well as addressing the role and responsibilities of the agri-food sector in relation to climate change targets.

The Committee welcomed the work already being done by the Agri-Food and Biosciences Institute at Hillsborough and urged that this work be enhanced. In particular the Committee would like to see greater dissemination of its research findings that offer win-win scenarios of lower emissions and greater profitability. Similarly it suggests that pure research into reducing emissions being carried out at the Institute should be accompanied by information on the economics of any new approaches. The Committee suggests that the Institute is recognised more widely across government as a resource for more general climate change-linked research especially in the areas of renewable fuels and materials and waste management.

The Committee also stressed its concern about the increasing use of Publicly Audited Standard (PAS) 2050 by retailers and food processors. The Committee did not believe this standard was sufficiently robust or comprehensive to provide accurate information on the carbon cost of food production and felt that its use presented a significant risk to highly vulnerable areas of the globe and could mislead consumers as to the impact of the purchase decisions. (See Recommendations 41, 42, 43, 44, 45)

Biodiversity

The Committee agreed that DEFRA's guiding principles for protecting biodiversity should be incorporated into Northern Ireland's climate change strategy. The Committee believes as a matter of social justice that Northern Ireland has a duty to recognise the global impacts of climate change on the developing world and that this should act as a driver for delivering the recommendations in this report. (See Recommendations 46, 47)

Adaptation

The Committee agreed that Northern Ireland should have a Climate Change Implementation Strategy which encompasses both mitigation and adaptation and that this should include DEFRA's principles for guiding the process of adaptation to climate change.

More specifically the Committee felt that similar to other jurisdictions, responsibility for development and implementation of adaptation actions should be the responsibility of the relevant individual departments. However, the department with responsibility for climate change policy should have a centralised coordination role and ultimate responsibility for delivery of adaptation measures. This should be supported by transparent accountability mechanisms to ensure delivery. (See Recommendation 48)

Sustainable Development

The Committee was adamant that the Northern Ireland Sustainable Development Strategy must recognise climate change as the most significant issue that it is trying to address. Consequently it agreed that the Sustainable Development Strategy and/or Action Plan should include targets for reducing greenhouse emissions that will ensure Northern Ireland makes a fair and proportionate contribution to the reduction targets agreed in the UK Climate Change Act. Members also wanted to see mechanisms for monitoring, reviewing and reporting included in the Sustainable Development Strategy.

The Committee recognised the potential for difficulties as a result of Sustainable Development and Climate Change Policy being the remit of two different departments but maintained that suitable linkages must be established to prevent climate change objectives being undermined. The Committee felt that a comprehensive sustainable development communications strategy should be led by OFMdfM and identify the necessary linkages between DOE, local authorities

and communities, so that climate change objectives can be delivered through the sustainable development strategy at local level. Members also felt that the wealth of information on good practice held within the Non-Government Organisation sector should be recognised and valued and utilised appropriately in the preparation of the strategy.

The duty on local authorities to deliver sustainable development, and through it climate change objectives, was seen by the Committee as an important role that should be expanded on particularly in key areas of responsibility such as the development of area plans and community planning. However it was recognised that this would need to reflect the limits of enforceability and power at local authority level and have sufficient room to adapt to any future changes in delivery as a result of the Review of Public Administration. The need for support and guidance from the centre was reiterated. (See Recommendations 49, 50, 51)

Cross-cutting approaches

The Committee welcomed the Green New Deal approach and commended in particular the proposals for drawing down funding. However, members noted this is just one example of ways to go forward on action for climate change, and urged government not to rule out examples from other jurisdictions.

The Committee noted that public funding for initiatives like the green new deal should be well supported and provide sufficient incentive for uptake. Funding should be additional not substituted.

Finally the Committee suggested that the Green New Deal or its equivalent should be incorporated into appropriate Public Service Agreements for the next Programme for Government. (See Recommendation 52)

Summary of Recommendations

Legislation and Policy

Recommendation 1: The Committee recommends that, as a matter of urgency, Northern Ireland should develop its own climate change implementation strategy that encompasses both mitigation and adaptation and focuses particularly on opportunities contributing to economic growth and delivering multiple objectives. It should also identify and seek to minimise any risks of outcomes that will counteract Northern Ireland's efforts to meet climate change objectives in the longer term.

Recommendation 2: The Committee recommends that Northern Ireland government should introduce climate change targets but should not make them legally binding in the short term. The introduction of new primary legislation in the medium to longer term should be considered when sufficient local information is available to identify challenging but achievable targets and actions and procurement of this information should be given a top priority.

Recommendation 3: The Committee recommends that Northern Ireland government should consider introducing secondary legislation under the UK Climate Change Act for waste reduction schemes, household waste and a levy for single use carrier bags should voluntary measures fail to achieve the required objectives in the short term.

Recommendation 4: The Committee recommends that climate change should continue to be one of the areas of work covered by the British Irish Council and there should be greater co-operation on climate change between Northern Ireland and the Republic of Ireland.

Recommendation 5: The Committee recommends that all departments must be required to take due cognisance of the implications any new policies will have for climate change. This should encompass positive and well as negative contributions and guided by the Climate Change Strategy, be used as a mechanism to avoid perverse outcomes arising from new policies.

Targets and Budgets

Recommendation 6: The Committee recommends that Northern Ireland government should commit to Northern Ireland making a fair and proportionate contribution to the UK Greenhouse Gas Emission Reduction Targets required under the UK Climate Change Act.

Recommendation 7: The Committee recommends that Northern Ireland should underpin its contribution to UK Greenhouse Gas Emission Reduction targets by urgently establishing its own emission targets based on sound local science. Long term targets should be accompanied by short and medium term annual or rolling targets which should be challenging but achievable, encourage attitudinal change, reflect local circumstances for each sector and based on the most cost-effective approach for Northern Ireland.

Recommendation 8: The Committee recommends that emission reduction targets should be established for each sector in Northern Ireland and obtaining the necessary scientific information to inform sectoral targets should be given a top priority.

Recommendation 9: The Committee recommends that Northern Ireland government should formally seek advice and assistance from the Committee on Climate Change in setting sectoral specific budgets, targets and action plans specific to Northern Ireland. All departments should seek the necessary sectoral advice but liaison should be led, coordinated and made locally applicable by the department with responsibility for climate change policy.

Recommendation 10: The Committee recommends that Northern Ireland government should seek the assistance of the MET Office in the establishment of targets and budgets for Northern Ireland.

Recommendation 11: The Committee recommends that the UK Committee on Climate Change should be asked to compile and submit annual reports on Northern Ireland's progress against its targets to the Northern Ireland Executive and Assembly and the Executive should respond to the reports in the Assembly.

Structures and Accountability

Recommendation 12: The Committee recommends that the forthcoming Efficiency Review should be used as an opportunity to look at the most appropriate position for climate change policy within the Northern Ireland government structure. During this process the Northern Ireland Executive should take cognisance of the approach taken in other UK jurisdictions and the need for central support. In the interim period DOE should retain its remit for climate change policy.

Recommendation 13: The Committee recommends that cost-benefit analyses from a climate change perspective should be carried out on all Public Service Agreements.

Recommendation 14: The Committee recommends that the Committee for the Environment should retain responsibility for scrutinising climate change policy while it remains the responsibility of DOE.

Recommendation 15: The Committee recommends that the Northern Ireland Audit Office should be tasked and funded accordingly, to assess progress on climate change objectives across government and report to the Public Accounts and Environment Committees.

Recommendation 16: The Committee recommends that Northern Ireland government should adhere to its commitment to achieve a carbon neutral estate by 2015 and should urgently prepare an action plan with targets for its delivery that will avoid the high costs of offsetting.

Recommendation 17: The Committee recommends that DOE's Climate Change Unit should remain intact whether it is housed within DOE or is moved to another Department following the Efficiency Review. It should have the lead role in helping Northern Ireland to meet its local, national and international climate change targets by liaising with the Committee on Climate Change, providing information, support and advice to all other departments, developing and delivering a climate change awareness campaign aimed at changing behaviour and taking the lead in developing the adaptation aspects of the Northern Ireland Climate Change Strategy.

Recommendation 18: The Committee recommends that the Minister for the department that has the remit for climate change policy should have greater responsibility for delivering climate change objectives. That department's role should be widened to lead and coordinate liaison with other jurisdictions and ensure the achievement of climate change targets and objectives in Northern Ireland.

Recommendation 19: The Committee recommends that public procurement should be seen as an opportunity for government to establish and demonstrate good practice by linking short, medium and long term emissions targets to Northern Ireland's best practice guidance. Care should be taken to avoid breaching EU single market rules and perverse outcomes.

Recommendation 20: The Committee recommends that a new planning policy statement for climate change should be developed and produced before the end of this Assembly.

Recommendation 21: The Committee recommends that, in the development of new area plans, cognisance should be taken by local government of the need to incorporate demonstrable measures to reduce greenhouse gas emissions.

Recommendation 22: The Committee recommends that before the establishment of the new councils central government should provide advice and guidance to local authorities on what they will be required to do to contribute to Northern Ireland's greenhouse gas emissions targets and how it should be done.

Recommendation 23: The Committee recommends that local authorities should be required to set challenging and achievable targets for their own activities such as energy efficiency and renewable energy sources and to maximise the opportunities for local centralised service provision.

Recommendation 24: The Committee recommends that more opportunities to address climate change should be made available through cross-border and European funding, such as Special EU Programmes Body, Rural Development and EU Life+ funding.

Costs

Recommendation 25: The Committee recommends that, wherever possible, a combination of incentives and penalties should be used to influence behavioural and attitudinal change. Following on from this inquiry the Committee intends to commission its own research to better inform it of the cost implications of addressing climate change in Northern Ireland.

Recommendation 26: The Committee recommends that the Green New Deal should be seen as an opportunity to start to address climate change issues now to avoid much larger costs in the future. It should be progressed as a matter of urgency across all relevant government departments.

Recommendation 27: The Committee recommends that government should prioritise options that offer relatively short payback times, taking possible future oil prices into consideration and/or multiple solutions, e.g. the Warm Homes Scheme.

Sectoral Targets and Action

Energy

Recommendation 28: The Committee recommends that Building Standards should be enhanced to ensure that new houses are built to standards that will enable them to meet energy efficiency requirements within their anticipated lifetime. Retrofitting is a costly option that should be avoided for all but existing housing stock.

Recommendation 29: The Committee recommends that incentives should be introduced to encourage improved energy efficiency and renewable energy initiatives particularly where they will help to alleviate fuel poverty.

Recommendation 30: The Committee recommends that energy efficiency labelling should be extended to all electrical goods so that consumers can factor in long term running costs to their purchasing decisions.

Recommendation 31: The Committee recommends that, in addition to incentives to reward businesses that improve their energy efficiency, penalties should be introduced for those companies that do not measure or persistently fail to improve their energy efficiency performance.

Recommendation 32: The Committee recommends that departments should be encouraged to utilise the expertise of specialist organisations like the Carbon Trust to advise them on improving their energy efficiency performance and other carbon footprint reducing activities in preference to appointing non-specialists in-house.

Recommendation 33: The Committee recommends that the capacity of the grid infrastructure needs to be strengthened to accommodate the shift in the location of power generation but this must be done in an open and transparent manner.

Recommendation 34: The Committee recommends that DETI should seek a practical means of overcoming barriers to renewables caused by high connection charges and low feed-in tariffs.

Recommendation 35: The Committee recommends that DETI should investigate the feasibility of support mechanisms for heat generated from renewables.

Recommendation 36: The Committee recommends that, in light of Northern Ireland's dispersed settlement pattern and the reluctance hitherto demonstrated for bioenergy plants to be built in close proximity to individual and group settlements, Northern Ireland government should reflect on the role of centralised government post RPA in planning decisions for bioenergy plants.

Transport

Recommendation 37: The Committee recommends that the balance of funding between public and private transport in the Regional Development Strategy should be revisited with a view to making public transport more user-friendly in terms of accessibility, punctuality and cost.

Recommendation 38: The Committee recommends that in rural areas alternative innovative solutions should be introduced such as vehicle sharing and community transport schemes in the short term while more radical solutions to meet Northern Ireland's dispersed settlement patterns in a sustainable way should be sought for the future.

Waste

Recommendation 39: The Committee recommends that DOE should develop a series of measures to be delivered by local authorities that will lead to attitudinal and behavioural change in relation to waste. The introduction of penalties should be considered for persistent irresponsible behaviour in relation to separating waste streams and recycling.

Recommendation 40: The Committee recommends that small and medium enterprises should be provided with more assistance in their waste management by local authorities.

Land Use

Recommendation 41: The Committee recommends that greenhouse gas emission reduction targets should be set for the agri-food sector that acknowledge the contribution of the sector to greenhouse gas emissions but reflect the importance of the sector for the Northern Ireland Economy and preserve the many-faceted benefits delivered by the sector for society.

Recommendation 42: The Committee recommends that a local climate change advisory body based on DEFRA's Rural Climate Change Forum model should be established in Northern Ireland.

Recommendation 43: The Committee recommends that the Rural White Paper should reflect the impact of climate change mitigation and adaptation on rural dwellers in general and address the role and responsibilities of the agri-food sector in relation to climate change targets.

Recommendation 44: The Committee recommends that AFBI Hillsborough's research facility for waste management and renewable fuels and materials should be recognised across government as a source of local climate change research. Current AFBI research that identifies agricultural practices with lower emissions and greater profitability should be disseminated quickly and widely and all research into reducing emissions should be accompanied by economic comparison studies.

Recommendation 45: The Committee recommends that the acceptance of Publicly Audited Standard 2050 as a measure of the carbon cost of food should be postponed in Northern Ireland until it has been made sufficiently robust to protect the globe's most vulnerable habitats and provide accurate and comprehensive information about agricultural production systems.

Recommendation 46: The Committee recommends that DEFRA's guiding principles for protecting biodiversity should be incorporated into Northern Ireland's climate change strategy.

Recommendation 47: The Committee recommends that, as a matter of social justice, Northern Ireland government has a duty to recognise the global impacts of climate change on the most vulnerable people and places and this should act as a driver for the delivery of the recommendations of this report.

Adaptation

Recommendation 48: The Committee recommends that individual departments should have responsibility for developing and implementing climate change adaptation activities relating to their functions, in accordance with the Northern Ireland Climate Change Implementation Strategy. The ultimate responsibility for the delivery of adaptation plans should be centralised with whichever department has responsibility for climate change policy and achieved by establishing transparent mechanisms for monitoring and reporting.

Sustainable Development

Recommendation 49: The Committee recommends that climate change should form an integral part of the Northern Ireland Sustainable Development Strategy. The Strategy and/or Action Plan should include targets that will ensure Northern Ireland makes a fair and proportionate contribution to UK targets along with mechanisms for monitoring, reviewing and reporting.

Recommendation 50: The Committee recommends that suitable linkages must be established between OFMdfM and DOE to ensure synergistic delivery of climate change objectives across central government and local government and OFMdfM should lead on a communications strategy that will establish these links. Non-Government Organisations should be invited to contribute to and participate in the preparation of the strategy.

Recommendation 51: The Committee recommends that climate change objectives should be delivered at local authority level through a strengthened sustainable development duty with support and guidance from central government. Areas of responsibility should reflect the enforceability powers of local authorities and delivery mechanisms should be sufficiently adaptable to allow for changes that may occur as a result of the Review of Public Administration.

Cross-cutting approaches

Recommendation 52: The Committee believes that the Green New Deal approach is welcome and recommends that government should be willing to provide its share of additional funding to support its uptake and to incorporate it into Public Sector Agreements. Alternative approaches from other jurisdictions should be monitored and included where appropriate.

1. Introduction

Inquiry Aim and Terms of Reference

1. The Committee agreed the aim and terms of reference of the inquiry at its meeting on 15 January 2009. These were agreed as follows:

Aim

2. "To understand the implications of climate change for Northern Ireland and to make recommendations on government policies, in line with the Committee's earlier response on the UK Climate Change Bill, to mitigate the impacts of climate change, examine economic implications and identify suitable adaptation initiatives."

Terms of Reference

3. a. To identify initial commitments for Northern Ireland that will ensure it plays a fair and proportionate role as part of the UK in meeting climate change targets.
- b. To consider the necessary actions and a route map for each significant sector in Northern Ireland (energy, transport, agriculture and land use, business, domestic, public sector etc)
- c. To identify the costs associated with meeting these obligations and compare them with the costs that will be incurred if they are not achieved.
- d. To identify a formal cost effective mechanism for assessing the potential impact of new policies on climate change / CO2 emissions. (Akin to Regulatory Impact Assessments/Rural Proofing)
- e. To make recommendations for appropriate targets/actions that could be included in the new Northern Ireland Sustainable Development Implementation Plan.
- f. To make recommendations on a public service agreement for the Department of the Environment (DOE) Climate Change Unit's commitments in the second Programme for Government that will ensure Northern Ireland will meet its climate change obligations.
- g. To consider what secondary legislation raising powers within the UK Climate Change Act would contribute to Northern Ireland's commitment to the UK Climate Change Bill.
- h. To express views on if and how the Assembly might conduct more effective scrutiny of climate change responsibilities across all relevant departments.
- i. To produce a report on the findings and recommendations of the inquiry by September 2009.

Inquiry Process

4. The Committee agreed to the placing of a public advertisement on 23 January 2009. In total, the Committee was pleased to receive 45 written submissions to the inquiry. These are contained in Appendix 3.
5. Members also agreed that a specialist advisor should be appointed to aid the Committee in its considerations of the subject area. Professor Sue Christie, Director of Northern Ireland Environment Link (NIEL), was appointed following the Committee sub group meeting of 18 March 2009.
6. Following consultation with the specialist advisor, the Committee agreed on 30 April 2009 to receive oral evidence from 24 contributors (Appendix 4).
7. The Committee took oral evidence over five meetings on 7 May 2009, 14 May 2009, 21 May 2009, 28 May 2009 and 11 June 2008.

8. The Committee also conducted a range of visits during the evidence gathering phase of the inquiry. These included:

London

The Committee met:

- The Rural Climate Change Forum (RCCF)
- The Department of Energy and Climate Change (DECC)
- The Climate Change Mitigation Unit
- The Environmental Audit Committee

Members also attended a Royal Town Planning Institute (RTPI) conference on Planning in a Changing Climate, observed a Parliamentary Debate on UK Climate Projections and attended an Environmental Audit Committee meeting with Joan Ruddock, Minister of State, Department for Energy and Climate Change (DECC) on personal carbon trading.

Dublin

The Chairperson and Deputy Chairperson met:

- The Oireachtas Joint Committee on Climate Change and Energy Security

Agri-Food and Biosciences Institute, Hillsborough, Northern Ireland

Members received briefings on:

- nitrous oxide emissions from grassland and soil and possible mitigation strategies
- greenhouse gas emissions from agriculture
- mitigation strategies to reduce enteric methane emission from cattle

Members also visited the on site anaerobic digester unit and the renewable energy research centre.

9. The Committee commissioned 4 items of research in the following areas which can be found at Appendix 5:

- Climate Change Policy Framework in Northern Ireland
- Climate Change Bill in Scottish Parliament
- Cross-cutting scrutiny of climate change structures in Wales and the Republic of Ireland
- The Carbon Trust in Northern Ireland and the Public Sector

10. Further information was provided by a range of organisations during the course of the inquiry. These can be found at Appendix 6:

Acknowledgements

11. The Committee for the Environment would wish to express and record its thanks to all those who participated in the inquiry through the provision of written and oral evidence.

2. Approach of the Committee and focus of the report

Evidence gathering

12. Members of the Committee selected climate change for the subject of its first inquiry because they recognised its potential to impact in many ways on society today and long into the future. The Committee committed to taking evidence from as many interested parties as possible but only making recommendations that are clearly evidence based.

13. The Committee was presented with 45 written submissions and agreed to take oral evidence from 24 organisations, businesses and individuals. This was based on the written submissions being evaluated against the following criteria agreed by the Committee on 30 April 2009:

- The extent to which the submission addressed the terms of reference and provided answers relevant to the terms.
- The extent to which the submission provided significant relevant information in response to the terms of reference.
- The extent to which the submission offered an additional, relevant perspective beyond what was provided in other submissions.
- The extent to which the submission indicated that further questioning would be likely to elicit additional relevant information

Scope of the report

14. It would not have been possible for the Committee to seek to scrutinise all policy areas that impact on climate change in each department in the time available for the inquiry. In its report the Committee has therefore sought to focus on the overall strategy to address climate change as required by the UK Climate Change Act, Strategic Priority 3 of the Programme for Government and PSA 22 and on the resourcing and delivery of these. In addition, the Committee has identified a number of gaps in the current policies and strategies and has made specific recommendations on how these should be filled.

15. Many of the issues addressed in this report were referred to by several organisations when presenting orally or in writing. Usually all organisations have been cited accordingly but this has not always been possible. Similarly, where a coalition's position has been supported by its member organisations, the individual organisations are not always cited individually.

16. In commencing this inquiry, the Committee was mindful of the fact that many of the potential solutions to address climate change are not under the control of DOE or even the Northern Ireland Executive. The terms of reference for the inquiry recognised this difficulty and it was agreed that the inquiry would focus on those policies and actions that would be deliverable by the devolved administration. Organisations providing evidence to the Committee were encouraged to focus on matters under the control of DOE or the Executive.

17. During the evidence gathering stage it became apparent that there were a number of specific areas of concern which organisations were raising within the terms of reference and on 2 July 2009 the Committee agreed that the report should focus on the following key issues:

- Legislation and policy – including policy development, amount and scope of legislation, the coordination of action and climate/carbon impact assessments.
- Targets and budgets – including if, and at what level, these should be set (national/sectoral), the roles of the Committee on Climate Change (CCC) and the MET Office and reporting mechanisms.
- Structures and Accountability – including government structures, the roles of government in general and DOE's Climate Change Unit, the Planning System, local government and public procurement in particular, along with delivery mechanisms and investment and innovation needs.
- Costs – the cost of delivering climate change costs associated with meeting these obligations and those that will be incurred if they are not achieved.
- Sectoral targets and action – including energy consumption and efficiency, renewable energy, transport, waste and land use.
- Additional specific actions - including adaptation, cross-cutting approaches and the sustainable development strategy.

3. Current policy position on climate change in Northern Ireland

18. The Committee recognised that all government departments have a contribution to make to addressing climate change. During the course of this inquiry the Committee commissioned a research paper on the Climate Change Policy Framework in Northern Ireland (Appendix 5) and requested a written submission to the inquiry from DOE.^[1]

19. Climate change and energy are one of six main themes of Northern Ireland's Sustainable Development Strategy (SDS), published by the Secretary of State in May 2006. The vision is for Northern Ireland to adapt to the impacts of climate change and operate as a highly energy efficient society using a sustainable energy system. The objectives of the theme are:

- to reduce greenhouse gas emissions, principally by promoting energy efficiency and the use of renewables
- to establish Northern Ireland as a world class exemplar in the development and use of renewable energy
- to plan and prepare for climate change impacts in Northern Ireland

20. The Sustainable Development Action Plan includes a target to reduce greenhouse gas emissions by 25% on 1990 levels by 2025. This target was established when the UK commitment being considered was a 60% reduction in greenhouse gas emissions by 2050. It has subsequently been set at 80% with an interim target of 34% by 2020.

21. The action plan also includes a commitment for the Government estate to be carbon neutral by 2015.

22. The Programme for Government (PFG) was published by the Office of the First and deputy First Minister (OFMdfM) on behalf of the Executive in May 2007. One of its three priorities is to protect and enhance our environment and natural resources. The PFG acknowledges that,

It is clear that climate change is one of the most serious problems facing the world. While we recognise that it requires action internationally, we are determined to play our part in addressing this challenge by reducing our impact on climate change.

At a local level, therefore, action is needed to reduce our impact on climate change.

23. The PFG contains Public Service Agreements (PSAs) which give guidance and direction to departments to achieve their desired outcomes. Not all PSAs have obvious implications for climate change but many have at least an indirect influence. The PSAs with relevance to climate change are outlined below along with the department responsible for their delivery:

PSA 1 Productivity growth

- Objective 1: Promote a competitive and outward looking economy Department of Enterprise, Trade and Investment (DETI)
- Objective 3: Ensure a modern sustainable economic infrastructure to support business (DETI)
- Objective 7: Improve the Strategic Road Network by the advancement/ completion of a range of major road works schemes Department of Regional Development (DRD)

PSA 3 Increasing employment

- Objective 4: Promote business growth (DETI)

PSA 4 Supporting rural businesses

- Objective 1: Support the development of rural businesses Department of Agriculture and Rural Development (DARD)
- Objective 3: Support environmentally sustainable land management (DARD/DOE)

PSA 5 Tourism

- Objective 1: Enhance Northern Ireland's tourism infrastructure (DETI/DCAL)
- Objective 2: Promote the growth of the tourism sector (DETI)

PSA 7 Making peoples' lives better

- Objective 4: Reduce levels of fuel poverty Department of Social Development (DSD)

PSA 11 Driving investment and sustainable development

- Objective 2: Regenerate former military sites to promote economic growth and for the benefit of local communities (OFMdfM/DSD)
- Objective 3: Coordinate delivery of the Sustainable Development Strategy (OFMdfM)
- Objective 4: Support the wider Public Sector in taking account of sustainable development principles when producing works, supplies and services (OFMdfM/DFP)

PSA 12 Housing, urban regeneration and community development

- Objective 1: Provide access to decent, affordable and energy efficient housing (DSD)
- Objective 2: Regenerate disadvantaged urban areas (DSD/DE/DHSSPS/DEL/DETI/OFMdFM)
- Objective 3: Promote viable and vital town and city centres, helping to create shared spaces that are accessible to all and where people can live, work and socialise. (DSD)
- Objective 5: Promote strong, integrated sustainable communities where people want to live, work and socialise. (DSD)

PSA 13 Improving the transport infrastructure

- Objective 1: Improve the Strategic Road Network by the advancement/ completion of a range of major road schemes.
- Objective 2: Maintain the road infrastructure to keep it safe, effective and reliable through resurfacing, surface dressing and timely repair of road defects. (DRD)
- Objective 3: Promote increase in usage of public transport (DRD)

PSA 14 Promoting safer roads

- Objective 2: Contribute to safer roads, using a wide range of initiatives, including road safety engineering, traffic calming and further enhancement of the pedestrian and cycling network. (DRD)

PSA 15 Water and sewerage infrastructure

- Objective 3: Acceptable levels of compliance with EU requirements and other relevant standards and targets by 2010. (DRD)

PSA 17 Rural infrastructure

- Objective 1: Improve rural infrastructure (DARD)

PSA 22 Protecting our environment and reducing our carbon footprint

- Objective 1: Take forward strategic action to improve air quality and reduce our carbon footprint (DOE/DETI/DSD)
- Objective 2: Promote energy efficiency and the use of renewable energy (DETI)
- Objective 3: Improve the quality and ecological status of the water environment (DOE/DCAL/DARD)
- Objective 4: Take forward action to improve air quality (DOE/DHSSPS/DETI)
- Objective 5: Promote waste management and reduce the annual tonnage of controlled waste illegally disposed (DOE)
- Objective 7: Conserve Northern Ireland's biodiversity
- Objective 8: Deliver a modern effective planning system which meets the needs of the whole community and the economy while protecting the environment. (DOE)

PSA 23 Managing risk of flooding from rivers and seas

- Objective 1: Deliver sustainable flood risk management policies to meet society's social, environmental and economic needs. (DARD)
- Objective 2: Implement the requirements of the European Directive for the assessment and management of flood risks Objective 3: Reduce the number of properties at risk of flooding from rivers and the sea (DARD)
- Objective 4: Maintain flood defences and drainage infrastructure in a satisfactory condition.(DARD)

24. As can be seen, although no PSAs refer directly to climate change, many have relevance to it. Most, if not all, departments have some policies on climate change but, as is discussed later, there is a risk that these policies will have little positive influence on climate change unless they are reflected in the core activities of the departments.^[2] The Committee wrote to all government departments to establish to what extent they considered the PSAs for which they have responsibility impacting, either negatively or positively, on climate change targets. The responses from the 10 departments can be found in Appendix 5^[3] and it can be seen that, while most departments demonstrate that they recognise the potential for some of their policy areas to impact on climate change targets, this tends to focus on policies that have a positive impact rather than those that have the potential to be negative.

25. In its response to the Committee's Inquiry, DOE submitted a paper^[4] highlighting its position on climate change as follows:

Key European commitments

- To agree EU position on a comprehensive post-2012 agreement including the EU Emissions Trading Scheme.
- Committed to 20% reduction in greenhouse gas emissions by 2020 on 1990 levels with 30% commitment if international UN agreement in Copenhagen in December 2009.
- An EU White Paper on adaptation is due to be published in April 2009.
- Whitehall departments take UK lead, though DAs (devolved administrations) are consulted regarding the EU climate and energy commitments.

Key UK Commitments

- Key initiative has been UK Climate Change Act 2008. This provides for UK statutory targets to reduce carbon dioxide emissions (80% by 2050); an Independent Committee on Climate Change established to advise the UK on carbon targets and budgets; enabling powers for trading schemes; and on adaptation to climate change impacts risk assessment and programmes to deal with impacts.
- Development of Carbon Reduction Commitment as a UK-wide mandatory cap and trade emissions trading scheme due to commence April 2010.

Northern Ireland Executive Position

- The Programme for Government (2008-2011) commits the Northern Ireland Executive collectively to reduce greenhouse gas emissions by 25% on 1990 levels by 2050.
- Gave policy agreement for Climate Change Act 2008 to be extended to Northern Ireland.
- Support in principle and committed to proceed with UK consultation re Carbon Reduction Commitment.

DOE Contribution to PFG targets

- Responsible for progressing Climate Change Act 2008 reporting requirements including links with CCC and UK risk assessment on impacts of climate change.
- Input Northern Ireland relevant aspects to policy developments relating to EU climate and energy including EU Emissions Trading Scheme and UK policy development including Carbon Reduction Commitment.
- Works with UK colleagues to provide for Northern Ireland greenhouse gas inventories and projections.
- Ensures Northern Ireland public service organisations are aware of impacts of climate change and of need to adapt. Published in January 2007 with Scottish and Northern Ireland Forum for Environmental Research, the report "Preparing for a Changing Climate in Northern Ireland".
- Supports the Northern Ireland Climate Change Impact Partnership which is charged with improving climate change understanding in the business, government, non-government and voluntary sectors.
- On planning policy, Planning Policy Statement 18 on renewables has been issued for consultation.
- Planning Policy Statement 15, 'Planning and Flood Risk', sets out the Department's planning policies to minimise flood risk to people, property and the environment. DOE and the Rivers Agency jointly launched Flood Risk Maps in November 2008.

26. Drawn from the above information and requested research on Climate Change structures in other jurisdictions, the following table summarises the distribution of climate change responsibilities within UK jurisdictions and the Republic of Ireland and how they are scrutinised.

Table 3 [\[5\]](#) [\[6\]](#)

Area	Remit	Departmental responsibility	Scrutiny
England	Energy policy and climate change mitigation policy	Department for Energy and Climate Change	ECC Committee – scrutinises expenditure, administration and policy
	Climate change adaptation policy	Department for Environment Food and Rural Affairs	EFRA Committee – scrutinises expenditure, administration and policy
	Environmental protection and sustainable development targets	All government departments	Environmental Audit Committee – monitors contribution and audits progress against targets
Wales	Cross cutting measures of climate change mitigation and adaptation	Department for Environment Sustainability and Housing	Sustainability Committee – scrutinises all Ministers and Departments relevant to climate change ⁶
Scotland	Overall responsibility for climate change	Cabinet Secretary for Finance and Sustainable Growth	Transport, Infrastructure and Climate Change Committee – reports on matters relating to climate change falling within
	Responsible to Cabinet Secretary for climate change	Minister for Transport,	

Area	Remit	Departmental responsibility	Scrutiny
Northern Ireland	Responsibility for advising Scottish Ministers on climate change policy in Scotland	Infrastructure and Climate Change Directorate for Climate Change and Water Industry	Cabinet Secretary for Finance and Sustainable Growth
	Climate change policy	Department for the Environment	Committee for the Environment
	Sustainable development action plan - greenhouse gas emission reductions	OFMdFM	Committee for OFMdFM
	PFG – strategic priority to protect and enhance our environment and natural resources – reducing greenhouse gas emissions	NI Executive	
Republic of Ireland	Address climate change	Department of Environment, Heritage and Local Government	Select Committee on the environment, Heritage and Local Government – scrutinises work of DEHLG
	Consider medium and long term climate change targets and measures to meet them		Joint Committee on Climate Change and Energy Security

27. When considering the conclusions of the report the Committee sought an update of the legislative position with regard to climate change in Wales and the Republic of Ireland.^[7]

4. Legislation and Policy

Policy Development

28. Most respondents suggested that Northern Ireland’s current policies on climate change are inadequate for the obligations it has signed up to under the Sustainable Development Strategy and the UK Climate Change Act.^[8] DOE told the Committee that there is no road map to describe how Northern Ireland will achieve the target to reduce greenhouse gas emissions by 25% below 1990 levels by 2025 as mandated within the Programme for Government^[9] or how it could achieve its share of the UK Climate Act commitment of 80% reduction by 2050^[10] and many organisations suggested that an evidence-based, costed climate change implementation plan should be developed and effectively delivered.^[11]

29. Respondents to the inquiry recognised that many of the measures to meet emissions reductions targets would come through reserved policies but there will also be a significant need for devolved policies, such as:

- promotion of energy efficiency in buildings and industry,
- development of a policy framework for micro-generation technologies,
- development of a policy framework for agriculture and land use that focuses on climate change,
- supporting renewable energy sources in the power sector and

- supporting planning for low-carbon investments.[12]

30. While these eco-policy priorities are essential for the entirety of the UK, adopting a local approach would allow for the different levels of responsibility that are devolved and reserved[13], thereby better reflecting local needs.

According to Northern Ireland Council for Voluntary Action (NICVA),

"Northern Ireland could be a world leader on some climate change issues if the will is there to do it"

31. This sentiment was endorsed by many other respondents including Chartered Institute of Environmental Health (CIEH) and Northern Ireland Local Government Association (NILGA).[14] Many organisations called for the Northern Ireland government to demonstrate leadership[15] and that it should be considered a cross-governmental issue.[16] The business sector wants to see a firm commitment from government that it is serious about the direction in which it is going and all departments are required to move in the same direction at the same pace. A 'level and stable' platform of regulation and finance is required for business to adapt to and take full advantage of the opportunities of the low carbon economy.[17] According to a recent survey conducted for Northern Ireland Climate Change Impacts Partnership (NICCIP), 48 out of 55 local council and central government decision-makers said that priorities other than climate change were given higher priority and that this was holding them back from acting.[18]

32. There is an urgency to act promptly to ensure that targets are delivered in the most cost-effective ways possible, mindful that costs will increase as the time to reach targets decreases. For example, government has committed to a carbon neutral estate by 2015[19] and if it is not achieved the Executive would be liable for costs of carbon offsetting.[20]

33. The business sector takes climate change very seriously, seeing it as a risk that businesses want to do everything possible to mitigate.[21] They stress the importance of maintaining Northern Ireland's competitiveness.[22] They believe that the long term targets are achievable at a manageable cost but feel the 2020 targets will be more difficult to attain. Nonetheless, they recognised that many of the initiatives and responses that will be required over the next 10 years will deliver an economic benefit, particularly in the area of energy efficiency.[23] Confederation of British Industry (CBI) called for policies to balance certainty with flexibility to ensure business can meet the challenges ahead and this approach was endorsed by the MET Office[24] The agriculture sector would welcome incentivised action but is opposed taxes and excessive legislation.[25]

34. Most respondents urged government to look for and take advantage of win-win opportunities for reducing carbon emissions and recognise initiatives that are already delivering this, albeit under other policy remits. This is particularly applicable for energy efficiency measures, such as the warm homes scheme to improve energy efficiency while addressing fuel poverty, but also in other less obvious areas such as the nitrates action plan designed to protect water quality but which also reduces greenhouse gas emissions from agriculture.

35. Many respondents called on government to recognise the opportunities which a green economy provides and to strive to become a world leader in this area.

36. All but one contributor to the inquiry indicated that they believe that science identifies climate change as a serious threat that needs to be proactively addressed. The one contributor taking a different view argued that a link between CO₂ emissions and climate change has never been proven and that climate change is part of a cyclical process that is beyond the power of humans to change. This contributor presented his own interpretation of the scientific evidence

and argued that no government action should be considered other than the establishment of an independent board of 'unbiased scientists' to seek evidence that CO2 affects the climate.^[26]

37. This opinion differed radically from all other contributions and it was agreed that reference should not be made to it routinely throughout the report as this would give the views expressed a disproportionate weighting compared with the body of information and evidence received.

Conclusions

38. The Committee agreed that Northern Ireland should produce as soon as possible its own Climate Change Implementation Strategy which should encompass both mitigation and adaptation.

39. Members felt that it was important that every opportunity should be made when developing the strategy to identify any beneficial aspects of addressing climate change, particularly where they could contribute to economic growth. The strategy should prioritise the obvious 'win-win' opportunities like the potential for green jobs but also actions that will deliver more than just climate change objectives. For example, the measures to improve energy efficiency contributing to reducing fuel poverty; practices aimed at reducing agricultural emissions leading to more efficient farming.

40. Members also wanted the strategy to identify ways of ensuring Northern Ireland avoids potential perverse outcomes of addressing climate change. For example, adapting to hotter summers by increasing to use of fossil fuel powered air conditioning.

Recommendations

As a matter of urgency, Northern Ireland should develop its own climate change implementation strategy that encompasses both mitigation and adaptation and focuses particularly on opportunities contributing to economic growth and delivering multiple objectives. It should also identify and seek to minimise any risks of outcomes that will counteract Northern Ireland's efforts to meet climate change objectives in the longer term.

Legislation

41. Nearly all respondents felt current climate change legislation in Northern Ireland was inadequate and insufficient to underpin the delivery of the UK Climate Change Act. They did not think it would enable Northern Ireland to contribute its fair share to obligations signed up to in this Act and most saw the need for primary legislation to be introduced.^[27] Some respondents stressed the need for engagement with business and industry when establishing legislation, partly to ensure it was fair and achievable^[28] but also in recognition of the difference between the public sector, large companies and small and medium enterprises (SMEs) and the influence they can have on each other^[29] and to ensure the support and full buy-in of all sectors. Some respondents recommended that legislation should ensure that specific sectors are not disadvantaged and that it should be applied proportionately.^[30]

42. The business sector is keen for stability, a level playing field and a clear indication of the standards that they will be required to meet in the future and they see legislation as a means of achieving this.^[31] The agriculture sector and SMEs were also supportive of legislation but urged that it be applied proportionately and not disadvantage some sectors more than others.^[32]

43. Many suggested that new legislation should be in the form of a Northern Ireland Climate Change Act^[33] akin to the approach taken in Scotland. It was also noted there is a timely

opportunity to consider introducing new primary legislation as the Irish Government is preparing similar climate legislation based on the UK Climate Change Act. The two jurisdictions are already working on an all-island energy market framework and this would also avoid distortions arising from the enactment of legislation across the border.^[34]

44. In addition to primary legislation it was also suggested that Northern Ireland should consider adopting some of the options for secondary legislation under the UK Climate Change Act such as a levy on plastic bags.^[35] It was also suggested that secondary legislation should impose public sector duties to deliver targets and establish the role of the CCC. British Wind Energy Association (BWEA), NICCIP and others suggested that incentive schemes (fees, taxation) be devised with hypothecation of the proceeds used for stimulating action in other aspects of carbon reduction (ring-fencing).

Conclusions

45. The Committee considered the legislative approaches being adopted in other jurisdictions and agreed that it was important to set targets as discussed in more detail in Chapter 5. However, Members agreed that enshrining climate change targets and action into legislation in Northern Ireland in the short term would be premature in the absence of sufficient local information available to inform the required actions and target levels.

46. The Committee agreed that the introduction of primary legislation to make targets legally binding should not be introduced at this stage but should be reconsidered in the medium to long term should it be deemed necessary after easier 'win-win' climate change actions have been adopted and more costly measures and greater behavioural change are required.

47. The Committee also agreed that the opportunities presented by the secondary legislation raising powers of the UK Climate Change Act should be considered in the future should other voluntary measures fail to deliver the required objectives.

Recommendations

Northern Ireland government should introduce climate change targets but should not make them legally binding in the short term. The introduction of new primary legislation in the medium to longer term should be considered when sufficient local information is available to identify challenging but achievable targets and actions, and procurement of this information should be given a top priority.

Northern Ireland government should consider introducing secondary legislation under the UK Climate Change Act for waste reduction schemes, household waste and a levy for single use carrier bags should voluntary measures fail to achieve the required objectives in the short term.

Co-ordination of action

48. Climate change is an area that must be implemented by each and every government department^[36] moving together in the same direction

49. In recognition of the contribution that all activities make to climate change the Committee sought information from all departments on the contribution of their Public Service Agreements to, or impact on, climate change.^[37] However, DOE specified that it does not have functional responsibility to assess the impacts of other government policies and strategies on climate change adaptation and mitigation. It noted that the Programme for Government's target to reduce emissions is the collective responsibility of individual departments within their functional

accountability. Also, that as the Sustainable Development Implementation Plan lies with OFMdfM, it is this Department's responsibility to oversee its cross-departmental actions on climate change rather than DOE.^[38]

50. The Council for Nature Conservation and the Countryside (CNCC) claimed that a major factor in the failure to meet the target to halt biodiversity loss by 2010 was that government efforts were too diffuse and poorly coordinated. Their message was that to tackle climate change a joined-up approach across government is required. One respondent suggested that giving responsibility for climate change to OFMdfM might enable a more joined up approach^[39] but this did not appear to be a widely held view among respondents.

51. The unique position of Northern Ireland as part of the UK but sharing a border with the Republic of Ireland was mentioned by several contributors^[40] as being significant in determining action and ensuring coordination with both jurisdictions, ensuring that Northern Ireland is not disadvantaged and is able to gain positive advantages from this unique geographical position.^[41] Climate change is currently included within the remit of the British Irish Council but is not mandated for the North South Ministerial Council^[42]. Research commissioned by the Committee clarified that climate change may come up in the North South Ministerial Council when it cross-cuts one of the other topics under discussion. This research also informed the Committee that Climate Change was last discussed in the British-Irish Council in 2006.^[43]

Conclusions

52. Members recognised climate change as an issue that has implications for all other departments in Northern Ireland and the Committee agreed there was a need for co-ordinated action. As the conclusions and recommendations for co-ordinated action are centred on government structures, these have been included in Chapter 6, Government Structures for Delivery and Scrutiny.

53. Members were also concerned about the risk of Northern Ireland being disadvantaged if action is uncoordinated with other UK regions and the Republic of Ireland. The Committee subsequently agreed that in addition to climate change being included in the British Irish Council remit, there should be greater co-operation on climate change issues between Northern Ireland and the Republic of Ireland.

Recommendations

Climate change should continue to be one of the areas of work covered by the British Irish Council and there should be greater co-operation on climate change between Northern Ireland and the Republic of Ireland.

Climate / Carbon impact assessments

54. Most organisations accepted that it will be necessary to develop and implement a mechanism that ensures that all policy and programmes proposed by government is proofed for climate change mitigation and adaptation impacts.^[44] Even where there was a reluctance to add to the list of impact assessments that every policy has to undergo, it was recognised as absolutely vital that new policies are screened for their impact on climate change.^[45] The assistance of the CCC in developing a suitable climate change impact assessment tool should be sought.^[46]

55. Some organisations suggested that the most effective way to assess new policies would be through carbon budgeting.^[47] However, there was concern that this might have an impact on

fuel poverty as the price of carbon in the short term would rise and if Northern Ireland goes down this route it will need to consider how it will help out those families that are on low incomes and already in fuel poverty.^[48]

Conclusions

56. The Committee agreed that all new policies should be screened for impact on climate change targets and obligations. The Committee did not feel it had been provided with sufficient information to make a decision on the mechanism for screening except that it should reflect positive as well as negative contributions.

Recommendations

All departments must be required to take due cognisance of the implications any new policies will have for climate change. This should encompass positive and well as negative contributions and guided by the Climate Change Strategy, be used as a mechanism to avoid perverse outcomes arising from new policies.

5. Targets and Budgets

Northern Ireland Targets

57. Most respondents stated that Northern Ireland has a duty to contribute its fair share to UK carbon emission reduction targets^[49] and many felt that specific targets for Northern Ireland should be made legally binding through legislation.^[50] Northern Ireland's poor track record on per capita emissions history; 12.83 tonnes per annum compared with the UK average of 10.50, a global average of 4 tonnes per annum and global fair share average of 1.65 tonnes per annum; was noted and attention drawn to the moral as well as social, economic and ethical obligation to make a concerted effort to reduce emissions.^[51] Many respondents also want to see Northern Ireland support the international climate change agreement to limit global warming to no more than 2°C.^[52]

58. However, in response to questioning by the Committee, DOE indicated that the UK emissions reduction target has not been allocated to each country and no determination has been made as to what is Northern Ireland's fair share of UK emissions. Consequently the Department was noncommittal as to whether the Sustainable Development Strategy (SDS) target of reducing greenhouse gas emissions by 25% on 1990 levels by 2025 would be sufficient to ensure Northern Ireland contributes fairly to the UK target.^[53] In 2006 Northern Ireland contribute 3.5% to the UK's greenhouse gas emissions.^[54]

59. In addition, DOE indicated that there is no road map to describe how Northern Ireland will achieve the SDS target. The Department made it clear that the introduction of legally binding carbon/greenhouse gas emission targets for Northern Ireland would be the collective responsibility of the Northern Ireland Executive.^[55] DOE stressed that it does not drive other departments and climate change in general is a collective responsibility.^[56]

60. Most organisations suggested Northern Ireland should adopt the same levels as the UK Climate Change Act of 80% reduction on 1990 levels by 2050.^[57] Some called for legally binding 5-year carbon budgets with an annual target of 3% being a good start but made it clear that more important than the target was the need to set out the policies and proposals that will enable Northern Ireland to deliver its targets.^[58] The Energy Services Trust (EST) stressed that

whatever option is chosen targets must be fair and proportionate and based on full analysis of the actual and realistic potential for emissions reductions in Northern Ireland.^[59]

61. CNCC expressed concern that even if targets are set there is a risk they will not be met, like the target to halt the decline in biodiversity by 2010. Research indicates that a major factor in the failure to meet this target was that too much time was spent talking and not enough on action. CNCC argued that this gives a clear signal that action on climate change must start now and that not everything has to be known about climate change before action commences.^[60]

Conclusions

62. The Committee agreed that Northern Ireland should make a fair and proportionate contribution to UK greenhouse gas emission targets. It agreed this should be achieved by Northern Ireland urgently setting its own targets for greenhouse gas emissions. In addition to long term targets, Northern Ireland should set short and medium term targets on an annual or rolling basis.

63. Members noted the importance of Northern Ireland's targets being underpinned by sound local research at sectoral level. The research should provide sufficient information for setting challenging but achievable Northern Ireland-wide targets enabling sectoral adjustments to be made where necessary due to local circumstances. The targets should encourage attitudinal change but also reflect where the most cost-effective reductions can be made.

Recommendations

Northern Ireland government should commit to Northern Ireland making a fair and proportionate contribution to the UK Greenhouse Gas Emission Reduction Targets required under the UK Climate Change Act.

Northern Ireland should underpin its contribution to UK Greenhouse Gas Emission Reduction targets by urgently establishing its own emission targets based on sound local science. Long term targets should be accompanied by short and medium term annual or rolling targets which should be challenging but achievable, encourage attitudinal change, reflect local circumstances for each sector and based on the most cost-effective approach for Northern Ireland.

Sector Specific Targets

64. Several organisations called for the setting of 'SMART' targets for each major sector, including developing 'road maps' for their delivery.^[61] Several witnesses, including CCC, recognised that in Northern Ireland the challenges are particularly severe for the agriculture and transport sectors. It is anticipated that because of the importance of agriculture to the region other sectors may have to contribute proportionately more to emission reductions in the short term. However, the overall expectation for the region to contribute its fair share will not diminish.^[62] However, there are concerns that targets set by the Department will not be conducive to achieving the lowest cost delivery of those targets^[63] and the agricultural sector was concerned that base-line information was insufficient for establishing targets.^[64] More research and development was called for, noting the large gap in available information between Northern Ireland and Scotland and the Republic of Ireland.^[65]

Conclusions

65. As discussed in the previous section, the Committee was keen that as much information as possible is used to inform target setting in Northern Ireland and that this should be carried out at sectoral level. The Committee agreed that specific emission reduction targets for individual sectors should also be set when the necessary information becomes available and that obtaining this information should be deemed a top priority.

Recommendations

Emission reduction targets should be established for each sector in Northern Ireland and obtaining the necessary scientific information to inform sectoral targets should be given a top priority.

Role of the Committee on Climate Change in Northern Ireland

66. The CCC is a UK body which has been set up under the UK Climate Change act to assist in delivery of the targets. The Committee has a statutory role to assist and advise devolved administrations as to how they can contribute to the delivery of carbon reduction targets.^[66] A number of possible roles for the Committee were suggested by various contributors. There was a general agreement that the Committee should play a major role in assisting Northern Ireland to identify sectoral targets, current performance and opportunities for carbon savings and that their expertise should be utilised in assisting the development of action plans and road maps specific to Northern Ireland.^[67]

Conclusions

67. The Committee agreed that Northern Ireland government should access the mechanism available for seeking advice and assistance from the CCC in setting sectoral specific budgets, targets and action plans specific to Northern Ireland. All departments should be encouraged to seek relevant sectoral advice from the CCC but liaison should be led and coordinated by the department with responsibility for climate change policy.

68. The department with responsibility for climate change policy should also develop a mechanism for making sure information provided by the CCC is suitable for local use.

Recommendations

Northern Ireland government should formally seek advice and assistance from the Committee on Climate Change in setting sectoral specific budgets, targets and action plans specific to Northern Ireland. All departments should seek the necessary sectoral advice but liaison should be led, coordinated and made locally applicable by the department with responsibility for climate change policy.

Role of the MET Office in Northern Ireland

69. The MET Office was keen to be involved in the establishment of targets and budgets for Northern Ireland and offered its expertise and assistance in this task.^[68]

Conclusions

70. The Committee agreed that Northern Ireland government should take up the MET Office's offer and seek assistance in the establishment of targets and budgets for Northern Ireland.

Recommendations

Northern Ireland government should seek the assistance of the MET Office in the establishment of targets and budgets for Northern Ireland.

Reporting Mechanisms

71. There was general agreement that clear lines of reporting of progress against targets are required.^[69] The government structures required for doing this are looked into more closely in Chapter 6 however, nearly all respondents suggested that scrutiny of performance against targets could be improved if the UK CCC reports to both the Executive and the Assembly and that the Executive should respond to their report in the Assembly.^[70]

Conclusions

72. The Committee agreed that the CCC should be asked to compile and submit annual reports on Northern Ireland's progress against its targets to the Northern Ireland Executive and Assembly and that the Executive should respond to the reports in the Assembly.

Recommendations

The UK Committee on Climate Change should be asked to compile and submit annual reports on Northern Ireland's progress against its targets to the Northern Ireland Executive and Assembly and the Executive should respond to the reports in the Assembly.

6. Structures and Accountability

Government Structures - Delivery

73. Many organisations stressed their concern that Northern Ireland's current government structure does not lend itself to balancing an increasing demand for energy against the need to rapidly reduce carbon emissions. Research commissioned by the Committee identified that most, if not all, departments have some policies on climate change but indicated that these policies would be unlikely to have a significant positive influence on climate change unless they were reflected in the core activities of the Department.^[71]

74. This research also drew the Committee's attention to the potential of the Programme for Government (PFG) Public Service Agreements (PSA) to bring unintended outcomes which could be negative or positive with regard to climate change depending on how the action was implemented by the department with responsibility for its delivery. For example, in Improving the Transport Infrastructure (PSA 13) upgrading the road network alone could bring the desired benefits for business and social mobility in the short term but if this encourages more cars on the road it is likely to exacerbate problems of carbon emissions, pollution and congestion in the long term. Interpreting this PSA in a way that seeks to improve roads while increasing the priority given to public transport would be a more sustainable approach and one more likely to contribute positively to GHG reduction targets.^[72]

75. It is also possible that several PSAs will deliver positive contributions towards climate change targets even though that is not their main focus. For example, in Making Peoples' Lives Better (PSA 7), reducing levels of fuel poverty by implementing energy efficiency measures benefits

those living in fuel poverty while also reducing the climate change implications of energy inefficient housing.

76. The effectiveness of using PSAs to measure departmental performance and delivery of the PFG priorities for climate change was raised by the Committee when DOE explained that, while it has responsibility for gathering the information on which the successful delivery of PSA 22 (Protecting our Environment and Reducing our Carbon Footprint) will be assessed, it has no authority for the other departments tasked with the delivery of PSA 22. In addition, DOE is unlikely to be involved in the assessment of the information gathered as it would appear that this will be the responsibility of OFMdfM.^[73]

77. In the absence of a clear mechanism within the PFG to drive coordination across departmental priorities the Committee was concerned that it will be difficult to measure the success of government's delivery of its overarching priorities. Many respondents had similar concerns and in the words of the Carbon Trust,

"continuing with this segregated approach risks inefficient and suboptimal policy and delivery."^[74]

78. In response to the Committee's question about what consideration DOE has given to delivering, encouraging and supporting cross-departmental working to deliver a better overall programme addressing multiple issues, DOE referred to the PFG's target to reduce emissions and the Sustainable Development Implementation Plan. However, it stressed that the former is the collective responsibility of individual departments within their functional accountability and the latter is the responsibility of OFMdfM.^[75] Several witnesses suggested this situation could be improved by the creation of a dedicated department for energy and climate change in Northern Ireland, similarly mandated to the DECC in Whitehall.^[76] The CCCNI noted that DECC has a governance model that is capable of addressing all UK departments and suggested that this might be a useful way forward for Northern Ireland.^[77] However, research commissioned by the Committee indicated that there are a range of approaches to allocation of climate change responsibilities and the scrutiny thereof, within the governments of the UK and Republic of Ireland.^[78]

79. The Committee met some, and wrote to other, departments and Committees asking for feedback on the effectiveness of the structures in place for dealing with climate change. Responses can be found at Appendix 5.^[79]

Conclusions

80. The Committee agreed that the forthcoming Efficiency Review should be used as an opportunity to look at the most appropriate position for climate change policy within the Northern Ireland government structure and that it should recommend that the Executive should take cognisance of the approach being taken in the other UK jurisdictions when making its decision. Being such a cross-cutting issue Members recognised that there needs to be a mechanism providing central support for which ever department is eventually tasked with climate change policy.

81. However Members noted their concern that the outcome of this Review could be several years away and emphasised the importance of ensuring that climate change is adequately addressed and effectively scrutinised within Northern Ireland government in the interim. It agreed that this would be most likely achieved by DOE retaining its remit for climate change policy and delivering it through its Climate Change Unit but that the role of this Unit should be

expanded requiring it to be more proactive across government and given more responsibility for the actual delivery of climate change objectives as discussed later in this Chapter.

82. The Committee recognised the risk posed by existing legislation in terms of meeting forthcoming climate change objectives and suggested that a cost-benefit analysis of all Public Service Agreements should be carried out to assess potential impact on climate change objectives.

Recommendations

The forthcoming Efficiency Review should be used as an opportunity to look at the most appropriate position for climate change policy within the Northern Ireland government structure. During this process the Northern Ireland Executive should take cognisance of the approach taken in other UK jurisdictions and the need for central support. In the interim period DOE should retain its remit for climate change policy.

Cost-benefit analyses from a climate change perspective should be carried out on all Public Service Agreements.

Government structures – Scrutiny

83. Several respondents suggested the structures in place for scrutinising climate change policy development and implementation in Northern Ireland could and should be improved. Under the current structure, as outlined in Table 3, climate change policy is the responsibility of DOE and therefore comes under the scrutiny of the Environment Committee. However, almost all of the actions required to deliver climate change policy are the responsibility of other departments with different priorities. As discussed earlier, delivery of some of these priorities might contribute to climate change targets but others may be in direct conflict.^[80]

84. Responsibility for sustainable development in Northern Ireland became the responsibility of OFMdFM when it was realised that it was such a cross-cutting issue that it affected every department. Consequently, some respondents^[81] suggested that the Sustainable Development Implementation Plan should be the vehicle for the delivery of climate change targets. This will be discussed later in the report.^[82]

85. Under current scrutiny arrangements, if the climate change remit is placed within an existing department such as DETI, the responsibility for its scrutiny will lie with the Enterprise, Trade and Investment (ETI) Committee. This will not overcome the fact that much of the delivery will still lie with other departments. In England, Wales and the Republic of Ireland cross-cutting committees have been established to overcome this problem. In England the Environmental Audit Committee (EAC) has been tasked to look at the delivery of environmental objectives across all departments and is currently focusing very strongly on climate change.^[83] Similarly, the Welsh Sustainability Committee and the Republic's Joint Committee on Climate Change and Energy Security oversee climate change mitigation and adaptation activities across all relevant government departments.^[84] The Scottish government is structured in a way that encourages integrated delivery of its goals and the need for scrutiny committees to be cross-cutting is reduced.

86. Of those who responded on this issue, many felt the scrutiny role of Assembly Committees will have a significant role to play in monitoring departmental progress against any future targets on climate change. The Sustainable Development Commission (SDC) for Northern Ireland noted that this would be particularly important in the event of a new Department of Energy and Climate Change being created.^[85]

87. Some respondents noted the benefits of having a cross-cutting committee of elected members as observed in other jurisdictions, but the SDC went further, suggesting that the responsibility for detailed assessment of progress should be delegated to a body dedicated to that sole purpose. It noted that the Northern Ireland Audit Office already carries out this role on matters of public spending and policy and could be well placed to extend its responsibilities to the climate change arena.^[86]

Conclusions

88. Members accepted the merit of introducing a specialised cross-cutting committee dedicated to look at climate change across all departments, as seen in Westminster's Environmental Audit Committee, Wales's Sustainability Committee and the Joint Oireachtas Committee on Climate Change and Energy Security. The Committee also noted that despite the EAC having a UK-wide remit when scrutinising reserved functions, it is largely seen as 'England's' scrutiny body for climate change.

89. However, concern about the capacity of the Assembly to introduce and service another committee of elected members and the likelihood of a departmental restructure negating the need, deterred the Committee from calling for a similar cross-departmental committee to be established in Northern Ireland.

90. Members noted that in the event of the Efficiency Review deciding to co-locate climate change policy and energy within a single department, the scrutiny role of the equivalent Statutory Assembly Committee would be likely to fulfil this role. In the interim it must continue to be carried out by the Committee for the Environment. The Committee recognised that this structure, which represents the status quo, is limited in its ability to perform cross-cutting scrutiny of other departments and suggested that the scrutiny process should be added to the remit of the NIAO. Directly akin to the current arrangement for overarching financial scrutiny, the Committee believes that the NIAO should be given the remit and resources to undertake the specialist role of detailed assessment and reporting on the achievement of climate change targets across government. The NIAO would report to the Assembly Public Accounts Committee but its reports would also be available for the Environment Committee to scrutinise more closely should it be necessary.

Recommendations

The Committee for the Environment should retain responsibility for scrutinising climate change policy while it remains the responsibility of DOE.

The Northern Ireland Audit Office should be tasked and funded accordingly, to assess progress on climate change objectives across government and report to the Public Accounts and Environment Committees.

Role of Government

91. The business and industry sectors in particular called for government to show leadership in addressing climate change in a way that recognised the need to maintain economic stability while moving to a low carbon economy.^[87] Leadership is required to pull together the intellect that is tied up in Northern Ireland's universities, with the business and political communities into a single focus.^[88]

92. The recommendations in this report will focus on government action to address climate change but there is a concern among the business and industry sectors that government will

develop policies in isolation and inform them of their roles and responsibilities rather than engaging with them early in the process in a constructive way.^[89]

93. Northern Ireland needs a coherent, strategic, holistic approach to policy making across a range of departments if it is to secure the reductions in carbon emissions required by the UK Climate Change Act.^[90]

94. Many respondents mentioned the advantages of obtaining advice and assistance from other jurisdictions on best practice and mechanisms for delivery on climate change commitments.^[91] In particular the CCC and MET Office were mentioned as valuable sources of assistance and both offered their support if they are requested to provide it.^[92]

95. Many respondents stressed the importance of Government leading by example in the management of its own estate, in particular in delivering on the target in the Sustainable Development Strategy to have the government estate 'carbon neutral' by 2015.^[93] Government was encouraged to lead by example, in the first instance through its own estate and procurement throughout the public sector. These actions would provide a positive driver for the private sector to adopt new standards and demonstrate that government itself also takes these matters seriously. Both will add greatly to the willingness of all sectors, including government itself, to adopt these policies and practices (such as lifetime costings, carbon costings and cross-sectoral work and analysis) which will bring about 'best practice' solutions fit for the 21st century.^[94] The SDC recommended that a body dedicated and skilled for the job needs to undertake detailed assessment of progress against targets these targets and suggested that the NIAO should be considered for this role.

Conclusions

96. The Committee agreed that Northern Ireland government should show leadership in addressing climate change in a way that recognises the importance of retaining economic stability. Members want to see a coherent, strategic and holistic approach to policy-making that gives the right priority to climate change and establishes a fair and level playing field to business and industry. This area has been covered in Chapter 4, Policy Development.

97. The Committee believes the government should adhere to its commitment to achieve a carbon neutral estate by 2015. It should also urgently prepare an action plan with for achieving it with targets for its delivery.

Recommendations

Northern Ireland government should adhere to its commitment to achieve a carbon neutral estate by 2015 and should urgently prepare an action plan with targets for its delivery that will avoid the high costs of offsetting.

Role of DOE Climate Change Unit

98. Most respondents mentioned that climate change impacts range across all government departments and that coordination among them on action is crucial, and that this should be delivered at Executive level.^[95] Many respondents felt that the DOE's Climate Change Unit's primary roles should be the provision of information, support and advice to all other departments.^[96] NICCIP and Sustainable Northern Ireland (SNI) stated that the Climate Change Unit should lead in developing an adaptation strategy for Northern Ireland. The Carbon Trust suggested that the Climate Change Unit should develop and deliver a climate change awareness campaign.^[97] Other respondents also supported the delivery of a public awareness campaign

aimed at changing behaviour.^[98] This is discussed in the section below on Sustainable Development.

Conclusions

99. As discussed earlier, the Committee believes that DOE's Climate Change Unit has a crucial role in coordinating action across the range of government departments affected by climate change. Members want to see the Unit remain intact and whether it is housed within DOE or moves to another department post the Efficiency Review, the Committee would like to see the Unit provide information across government and support and advice to all other Departments. It should take the lead in liaising with the Committee on Climate Change on behalf of Northern Ireland government and have a co-ordinating role of the information provided. The Committee would also like to see it develop and deliver a climate change awareness campaign aimed at changing behaviour and take the lead in developing the adaptation strategy referred to in Chapter 4.

Recommendations

DOE's Climate Change Unit should remain intact whether it is housed within DOE or is moved to another department following the Efficiency Review. It should have the lead role in helping Northern Ireland to meet its local, national and international climate change targets by liaising with the Committee on Climate Change, providing information, support and advice to all other departments, developing and delivering a climate change awareness campaign aimed at changing behaviour and taking the lead in developing the adaptation aspects of the Northern Ireland Climate Change Strategy.

Delivery Mechanisms including delivery of carbon commitments

100. The majority of respondents stated that responsibility for delivery of carbon commitments must rest with the government as a whole through the Executive.^[99] The requirement for road maps or action plans, specific for Departments or sectors, was mentioned repeatedly.^[100] The CCC offered its assistance in establishing mechanisms, targets and action plans.^[101] Coordination across government was felt to be crucial to the successful delivery on the commitments by most respondents, and mechanisms for ensuring this need to be developed.^[102] Because of the complexity of the interactions and need for a joined up approach many respondents mentioned using the Sustainable Development Strategy and Public Service Agreements as key tools for delivering the required integration.^[103] Many respondents mentioned that the only way to ensure the widespread commitment and compliance is through legislation and binding sectoral targets.^[104] The SDC recommends that all Public Service Agreements should specifically state how they contribute to targets. NILGA called for that 'appointment of a Ministerial Champion for climate change'.^[105]

Conclusions

101. The Committee was concerned that the department that is currently tasked with climate change policy does not have overall responsibility for climate change in Northern Ireland and sees itself merely as a 'conduit' for climate change information. The Committee did not so much see a need for a 'ministerial champion' for climate change as the Minister for the Environment being given full responsibility for climate change for so long as climate change policy remains the remit of his department. Members were concerned that at the moment individual departments appear to be liaising with their equivalent departments in other jurisdictions in disparate ad hoc

ways when a more coordinated approach led and orchestrated by DOE could be much more constructive in delivering Northern Ireland's targets and objectives.

Recommendations

The Minister for the department that has the remit for climate change policy should have greater responsibility for delivering climate change objectives. That department's role should be widened to lead and coordinate liaison with other jurisdictions and ensure the achievement of climate change targets and objectives in Northern Ireland.

Public procurement

102. Many respondents felt that the size of the public procurement budget and size of the public service provide an excellent opportunity for government to establish and demonstrate good practice and in so doing, provide an economic stimulus during the economic downturn.^[106] Several organisations specifically mentioned the large role that public procurement can deliver in the transport sector.^[107]

Conclusions

103. The Committee agreed that the public procurement process offers opportunities for government to establish and demonstrate good practice and that these should be maximised. Northern Ireland's short, medium and long term emissions reduction targets should be incorporated into best practice guidance and tenders prioritised accordingly.

104. The Committee recognised the economic potential for Northern Ireland of this approach but noted the need for caution in relation to EU single market laws.

105. Members also noted the importance of avoiding 'perverse' outcomes as a result of more stringent standards for procurement.

Recommendations

Public procurement should be seen as an opportunity for government to establish and demonstrate good practice by linking short, medium and long term emissions targets to Northern Ireland's best practice guidance. Care should be taken to avoid breaching EU single market rules and perverse outcomes.

Role of the Planning System

106. Many organisations recognised that the planning system has an important role in preparing Northern Ireland for a low-carbon future.^[108] The CCC stressed the importance of supporting planning for low-carbon investments^[109] and the wind energy sector explained to the Committee some of the difficulties they anticipate as a result of planning guidance proposals.^[110] Existing and developing Planning Policy Statements (PPS) increasingly take climate change into account in the guidance, e.g. PPS15 on Flooding and PPS18 on Renewables but it was suggested to the Committee that a PPS on Climate Change itself should be produced.^[111]

107. The commitment made recently by DOE indicating that economic considerations will be a factor in Planning Service's decision-making process was seen as an important part of boosting renewables and was welcomed by CBI and BWEA. However, it was felt that there is still a need

for planning reform to ensure decisions do not impact detrimentally on Northern Ireland's ability to mitigate climate change.^[112] Specific difficulties related to planning faced by the wind energy sector are addressed later in the report.^[113]

Conclusions

108. The Committee recognised the importance of the role of the Planning System in preparing Northern Ireland for a low carbon future.

109. The Committee welcomed the Department's proposals to extend permitted development rights for micro-renewable energy generation accordingly.

110. Members recognised that all new planning policy statements are now required to take climate change impacts into consideration. Nonetheless they felt that it was now time for a specific Planning Policy on Climate Change to be developed that would, among other things, guide where new development should occur and what measures should be adopted to reduce carbon footprints. The Committee called for this to be developed with urgency.

111. The Committee also noted that local government would soon be commencing new area plans and that they should be required to incorporate measures to reduce greenhouse gas emissions in these plans.

Recommendations

A new planning policy statement for climate change should be developed and produced before the end of this Assembly.

In the development of new area plans cognisance should be taken by local government of the need to incorporate demonstrable measures to reduce greenhouse gas emissions.

Role and Responsibilities of Local Government

112. According to NILGA,

"Many of the delivery measures required to address climate change will fall to local government and there must be a clear steer and support from the centre as to how this will be achieved."^[114]

113. NILGA feels that the experience to date with implementation of the Sustainable Development Strategy does not auger well when it comes to climate change. Even though a statutory duty placed upon them to deliver sustainable development, local authorities are still waiting for adequate and appropriate guidance.^[115] It will be critical to the success of any Northern Ireland Climate Change Strategy that all stakeholders are aware of their responsibilities and enabled to carry them out.^[116] The BWEA suggested that each of the new Councils should have a renewable generation target for their area and SDC and NILGA supported the idea of improving the duty for Sustainable Development.

Conclusions

114. The Committee remained unconvinced that the new council areas in Northern Ireland should be required to have their own greenhouse gas emission reduction targets. While this approach might be possible in regions where much larger local authorities have greater powers

and responsibilities, it is unlikely to be feasible in Northern Ireland. Nonetheless the Committee believes that local authorities are an important driver and have a significant role to play in delivering climate change objectives at local level and urges central government to provide advice and guidance urgently on what is required and how it should be done.

115. The Committee would also like to see local authorities act as local exemplars of good practice in areas such as energy efficiency, use of renewable technology and community heating schemes. It suggests local authorities set challenging and achievable targets for their own activities such as energy efficiency and renewable energy sources. In addition opportunities for providing local centralisation of services that reduce individual carbon footprints should be maximised, for example, the provision of healthcare in the same municipal building as a pharmacy and a post office.

Recommendations

Before the establishment of the new Councils, central government should provide advice and guidance to local authorities on what they will be required to do to contribute to Northern Ireland's greenhouse gas emissions targets and how it should be done.

Local authorities should be required to set challenging and achievable targets for their own activities such as energy efficiency and renewable energy sources and to maximise the opportunities for local centralised service provision.

Investment and Innovation

116. The opportunity for Northern Ireland to benefit from local innovation and business development was mentioned by several respondents. They felt that Northern Ireland has a strong research reputation that could readily be built on but support for innovation and research would be required to take advantage of and build upon these opportunities.^[117]

117. The pace of change in society and technology in response to the carbon challenge will be rapid, and research is taking place across the world but Northern Ireland could learn from this and adapt the most relevant best practice and deliver it locally.^[118] There are numerous examples of best practice currently being delivered in Northern Ireland through private industry and local and central government departments, however, there is little evidence that this is being shared or replicated across sectors even though there are potentially great benefits to Northern Ireland from such sharing^[119] The Federation of Small Businesses (FSB) recommended that there should be investment in technological innovation which could then be used to encourage small businesses to get involved in low carbon developments.

Conclusions

118. The Committee was particularly keen to see more opportunities being made available to address climate change through cross-border and European funding, such as Special EU Programmes Body, Rural Development and EU Life+ funding.

Recommendations

More opportunities to address climate change should be made available through cross-border and European funding, such as Special EU Programmes Body, Rural Development and EU Life+ funding.

7. Costs

119. Most organisations referred to the Stern report^[120] when alluding to the costs of climate change but there was very little on the specific costs anticipated by industry and businesses in Northern Ireland for addressing climate change. Some organisations suggested that the CCC should be asked to provide a breakdown on costs of action and inaction for Northern Ireland akin to their work for the UK as a whole but until specific targets for Northern Ireland have been set this unlikely to be possible.^[121]

120. The CCC has calculated that the cost in the UK of reducing emissions to 80% below 1990 levels by 2050. It argues that this can be made affordable, estimating it would be in the region of 1-2% Gross Domestic Product in 2050.^[122] CCC clarified when questioned by the Committee that it would be reasonable to suggest that the cost of doing nothing would be greater than their predicted costs.^[123]

121. The Northern Ireland Vision Study^[124] concluded it was possible to realise 60% reduction in carbon emissions by 2050 provided early action was taken to:

- optimise energy use by implementing all possible energy efficiency and reduction measures.
- decarbonise energy/fuel supplies by investing in renewable energy resources.
- decouple economic growth and social activity from the consumption of high-carbon fuels by developing low carbon technologies, products and services.

122. This work was based on UK figures and at the time indicated that the target could be achieved with between 0.3 and 2% GDP. However, it should be noted that both UK and NI studies were completed before the carbon reduction emission reduction target was raised to 80% by 2050.^[125] The Committee was also concerned that these estimates of costs were also carried out before the economic downturn and Members were keen to clarify the implications of this.^[126]

123. Some organisations were concerned that policies put in place to meet emissions targets could result in rising costs and suggested incentives to reduce emissions would work better than penalties such as taxes or levies.^[127] However, the business sector urged government to act sooner rather than later so they can factor climate change requirements into their long term corporate strategies now rather than trying to catch up over a short period.^[128]

124. Many organisations saw moving to a low carbon future as an opportunity for government to stimulate the local economy, akin to President Obama in the US. Jobs could be created within the renewable energy sector along with a growth in the number of other 'green collar jobs'.^[129]

125. Several respondents noted that there are potentially large costs to the Northern Ireland government in dealing with the impacts of climate change and adapting to those impacts. Planning ahead can minimise those costs and reduce the damage caused to citizens and property.^[130] It was noted that the costs of inaction are often borne by the government and hence community as a whole and are often higher than the costs of proactive action.^[131]

126. Many respondents mentioned the close coupling of climate change action and benefits to be gained from saving energy, including security of supply and the likely increasing cost of energy in the medium to long term^[132] and the advantages to be gained from promoting climate change action in that context.

127. NIEL and the CCCNI, among others, suggested that funds identified for climate change action in the UK should be transposed to Northern Ireland for complementary purposes, and the possibility of 'hypothecations' of funds raised through one aspect of cutting emissions for other climate related actions in the same area (e.g. funds from increased road tax used to subsidise/improve public transport) should be investigated as they are very popular with the public.

128. The EST and Carbon Trust both pointed out that there are many energy saving measures which can be implemented at little or no cost and offered their assistance in promoting these measures. It was also often mentioned that the cost of upgrading when other works are proceeding can be minimal compared to long term running costs and that this should be encouraged as a cost effective way to help deliver on commitments.^[133]

129. Proposals for a Green New Deal for Northern Ireland are discussed later in the report (Chapter 8) but details of how such an initiative might be funded are included in this chapter on costs as they give some practical ideas for funding the conversion to a new low carbon economy.

130. The Green New Deal is anticipated to cost in the region of £900 million per annum. Suggested sources of funding include from the currently planned public sector as follows:

- The Barnett consequential of the recent UK economic stimulus package;
- Maximising the potential of the Investment Strategy for Northern Ireland for new energy investments and associated training;
- Reallocating expenditure saved by tackling the inefficiencies arising from sectarian segregation and associated service duplication;
- Focusing existing economic support programmes on the Green New Deal.

131. The following mechanisms combining private and public funding sources are also proposed:

- Bond finance: capital is raised through the bond markets for investment in energy saving measures and a revenue stream is created through a 'pay as you save' scheme whereby the cost of the measures is recovered through energy bills.
- A surcharge on the regional rate serving as a revenue stream for a bond issue via a non-government body – such a cast iron revenue stream would secure the lowest interest rates.
- A more substantial restructuring of the rating system to incentivise investment in low carbon technologies and energy efficiency, while penalising those properties that continue to waste energy.
- Housing equity unlock: a charge on a property serves as security for the capital investment in energy saving measures and is paid for through a 'pay as you save' scheme.
- European Investment Bank loans made available through the local banks; a mutualised body; and/or other agencies.
- Salix Finance: the use of an enhanced Carbon Trust Salix fund to finance investment in the public sector.
- Local authority bonds: local councils could issue bonds securitised against the rates base to carry out energy efficiency measures on their own buildings

- Northern Ireland Green Energy Bond issued by government if Treasury rules were relaxed, or by local banks or a mutual institution to attract savings from individuals and pension funds.^[134]

Conclusions

132. The Committee noted that very few of the submissions to the inquiry provided detailed local information on costs in relation to climate change. Members saw this as a considerably important aspect of the inquiry and in the absence of sufficient information to come to any significant conclusion, agreed to commission its own research into the cost implications of addressing climate change in Northern Ireland.

133. Members agreed that a combination of incentives and penalties would be required to drive behavioural and attitudinal change and felt that government in the first instance should be looking at options that offered relatively short payback times and/or multiple solutions, e.g. the warm homes scheme. Members also noted that the likely high cost of oil in the future should be factored into decisions.

134. Members recognised that amendments had been made to rates in Northern Ireland since evidence had been submitted to the inquiry and that these addressed some of the incentives proposed by the business sector. The Committee welcomed these.

135. The Committee also welcomed the mechanisms and approach proposed for private and public sector funding for the Green New Deal. The Committee sought updated information on the Green New Deal's progress and was advised that progress is slow but all parties are still working together to develop the approaches identified. The Committee acknowledged the constrained economic times but stressed the importance of progressing the Green New Deal seeing it as an opportunity to avoid paying much larger costs later.

Recommendations

Wherever possible a combination of incentives and penalties should be used to influence behavioural and attitudinal change. Following on from this inquiry the Committee intends to commission its own research to better inform it of the cost implications of addressing climate change in Northern Ireland.

The Green New Deal should be seen as an opportunity to start to address climate change issues now to avoid much larger costs in the future. It should be progressed as a matter of urgency across all relevant government departments.

Government should prioritise options that offer relatively short payback times, taking possible future oil prices into consideration and/or multiple solutions, e.g. the Warm Homes Scheme.

8. Sectoral Targets and Action

Energy

Energy consumption

136. The need to reduce energy consumption was stressed by most respondents and nearly all recognised that energy and climate change cannot be looked at as separate issues. According to

government statistics Northern Ireland wastes over £500 million each year through inefficient energy use.^[135]

137. The CCC indicated that in order to meet UK Climate Change Act targets there is a need to decarbonise the power sector. This can be done with three types of technology; renewable, nuclear and carbon capture and storage. In the shorter term there is an opportunity to reduce demand through improving energy efficiency, particularly in buildings and through behaviour change.^[136] The Royal Institute of Chartered Surveyors (RICS) suggested that the use of all resources, including energy, should be minimised over the lifetime of buildings, leading to a sustainable property sector.^[137]

138. The Carbon Trust and Energy Savings Trust (EST) gave practical examples of where efficiencies can be made in mutually beneficial ways that reduce energy bills. They also indicated that this approach is multifunctional, helping to address fuel poverty and other policy imperatives. CBI highlighted the opportunities that the low-carbon economy creates for industry and noted the importance of having the right skills base to support its development.^[138] The Carbon Trust and the SDC cited the need to decrease energy use, decarbonise energy production and decouple energy from growth, although the SDC is not fully convinced of the feasibility of delivering the latter given the difficulty of changing behaviour. The CIEH provided evidence that suggests that several of the actions needed to reduce carbon emissions will also contribute to addressing rising levels of obesity.^[139]

Energy efficiency – domestic

139. At present buildings contribute 44% of carbon emissions, and 63% of all energy consumed, in the UK comes from the built environment.^[140] In recognition of this, many respondents stressed the need for building standards to be improved so that 'newbuilds' constructed today will be fit for purpose over their lifetime. This would mean that schools and hospitals built now and which will still be in operation by 2050 should be designed to achieve the 80% reduced carbon emission required by the UK Climate Change Act targets. Respondents also called for the Assembly to recognise the importance of building regulations in determining the CO₂ emissions of houses and how decisions made today will impact for many decades.^[141] The Committee was concerned to learn that in Northern Ireland building standards are higher for social than private housing and sought further information and an explanation from SDC suggested that in order for Northern Ireland to meet the UK targets for an 80% reduction in energy consumption in 2050 both private and social housing should be built to at least code level 4 in DSD's Code for Sustainable Homes.^[142] The EST indicated to the Committee that the cost of retrofitting existing homes to suitable energy efficiency standards will be approximately £2.6 billion over the next 10 years. However, this will result in a net saving of £3.7 billion and 7.3 million tons of carbon.^[143]

140. Several respondents also stressed that, since 75-80% existing buildings will still be around by 2050, there needs to be as much if not more emphasis on retrofitting existing housing as building new houses to higher standards.^[144] In response to the Committee's questions about the cost of this, SDC indicated that the average cost of retrofitting houses across the UK is £11,000 per home.^[145]

141. The Committee sought more information on this scheme and asked about similar information being provided for other electrical goods used about the home such as phones, Sky boxes, TVs and Playstations. The EST indicated that the potential to provide this information exists and they are working with manufacturers and retailers to deliver this. The EST suggested the Assembly could show support for it by endorsing its work as a one-stop-shop that provides free, impartial and reliable advice. It referred in particular to the DSD advising recipients of the fuel payment to ring the EST if they had any queries.^[146]

142. The EST indicated that the scope for energy-efficiency improvements within the residential sector is massive. The Committee was concerned that there was a risk that some manufacturers and businesses are using the threat of climate change as a marketing ploy to persuade consumers to make more expensive purchases than otherwise necessary. However, the EST made it clear that their message was about helping people to stop wasting energy, which benefits consumers regardless of whether their motivation is saving money or addressing climate change. The EST referred the Committee to the white goods labelling scheme that gives consumers an indication of the energy efficiency of a product so that they can factor the long term running cost of products into their purchasing decision.

143. The EST noted that a key way to address fuel poverty and decrease energy use within the housing sector is by conversion to gas. According to the EST 95% households in GB use gas but only 122,000 in Northern Ireland. Recent increases in gas prices have not helped the uptake of gas where it is available but many areas still have no option. EST wants to see the gas network extended to the rural areas and suggest that a target of 70% of houses should have access to gas by 2020.^[147] However, other organisations pointed out that to address carbon targets it is necessary to move to non-fossil fuel based heat as well as electricity.^[148]

144. The RICS welcomed the introduction of Energy Performance Certificates (EPC) but wants a commitment from government that they will be taken seriously and operated as an effective incentive to reduce energy consumption. They suggest that for this to be effective this will require the role of EPC enforcement to be given to local authority building control officers and that adequate funding must be provided to cover that duty.^[149]

Conclusions

145. The Committee welcomed the introduction of parity of building standards between the private and social housing sectors that has taken place since evidence was provided to the Committee during its inquiry. However, it stressed the importance of these buildings standards being at a sufficiently high level to ensure that new houses will be able to meet the demands required by future targets in their lifetime because at best, retrofitting is a costly option and not always possible. Members noted that the Republic of Ireland was introducing even higher standards than those proposed in Northern Ireland suggested that current proposed standards should be revisited by DFP and increased and brought forward where necessary.

146. As mentioned previously the Committee welcomed proposals for permitted development rights to be extended to cover micro-renewable energy generation and suggested that further incentives should be introduced to improve building standards and encourage renewable energy initiatives where possible with the advantage that they also contribute to alleviating fuel poverty.

147. The Committee also welcomed suggestions that all electrical appliances should be required to display their energy usage in a labelling scheme akin to that currently used for white electrical goods so that consumers could factor the long term energy costs into their purchasing decisions.

Recommendations

Building Standards should be enhanced to ensure that new houses are built to standards that will enable them to meet energy efficiency requirements within their anticipated lifetime. Retrofitting is a costly option that should be avoided for all but existing housing stock.

Incentives should be introduced to encourage improved energy efficiency and renewable energy initiatives particularly where they will help to alleviate fuel poverty.

Energy efficiency labelling should be extended to all electrical goods so that consumers can factor in long term running costs to their purchasing decisions.

Energy efficiency – business

148. CBI called for incentives to be used to encourage energy efficiency among businesses, suggesting that small grants could be given towards purchase of products or through rates rebates. They recommended that businesses should be encouraged to measure their carbon emissions and do something about them which would result in the win-win of reducing costs for those businesses while contributing to carbon emissions reductions.^[150] CIEH and the Carbon Trust provided information indicating that there could be significant improvements in energy efficiency of buildings at low cost.^[151]

149. Similarly, the Northern Ireland Independent Retailers Association (NIIRTA) noted the detrimental effects of recent dramatic price hikes in energy on small businesses and commended government initiatives like the rates-relief scheme to reduce the impact. They stressed the importance for long term competitiveness of encouraging business to reduce their energy costs by breaking their dependence on fossil fuel. Consequently, they recommended that the scheme be expanded to provide additional rates relief for small retailers who invest in renewable energy systems.^[152]

150. FSB suggested that a system of promotion and practical support for energy efficiency measures be provided to small businesses, along with a clear regulatory framework and policy which takes into account the impacts of the regulation on small businesses.

Conclusions

151. As mentioned previously the Committee welcomed the amendments that have been made to Northern Ireland rates to incentivise energy efficiency during the course of this inquiry. The Committee also suggested that in addition to incentives Northern Ireland government should also look at the introduction of penalties for businesses and industries that persistently fail to improve their energy efficiency.

Recommendations

In addition to incentives to reward businesses that improve their energy efficiency, penalties should be introduced for those companies that do not measure or persistently fail to improve their energy efficiency performance.

Energy efficiency – public sector

152. Several organisations cited the need for the government estate itself and the public sector in general through public procurement to take a lead in encouraging energy efficiency.^[153] This is also addressed in Chapter 5.

153. The Northern Ireland Sustainable Development Action Plan includes a target for the government estate to be carbon neutral by 2015. The Committee was therefore concerned to learn that, because of the terms of its funding arrangement, the Carbon Trust is currently unable to make recommendations for reducing carbon emissions to the public sector.^[154]

154. The Committee sought clarity on this through Assembly Research Services and was advised that, while the Carbon Trust's current funding from Invest NI prohibits it working with the public

sector, it could seek alternative funding to perform this role. Accordingly the Committee wrote to DFP asking for more information on the funding sources that might available for this.^[155]

Conclusions

155. The Committee agreed that it is important for government to show leadership and that as mentioned Chapter 6 it should set an example by adhering to its commitment to achieve a carbon neutral estate by 2015 and urgently prepare an action plan with targets for its delivery that will avoid the high costs of offsetting.

156. The Committee was concerned however, that each department appeared to be taking its own route towards improving efficiencies and considered that a more coordinated approach would be constructive. The Committee suggested that this might be delivered in a more cost effective way by seeking guidance from the expertise of organisations like the Carbon Trust rather than appointing non-specialists to work in isolation within each department.

Recommendations

Departments should be encouraged to utilise the expertise of specialist organisations like the Carbon Trust to advise them on improving their energy efficiency performance and other carbon footprint reducing activities in preference to appointing non-specialists in-house.

Renewable energy

General

157. The potential for indigenous renewable energy to enable Northern Ireland to shift to low-carbon sources of energy and thus contribute to greenhouse gas emission reductions was referred to by many respondents. Many identified the link between proactive development of the renewable energy industry and its positive contribution to social and economic concerns particularly in terms of the employment opportunities. SDC stated that the renewables sector in Germany supports 170,000 direct jobs with many associated spin-off jobs.^[156]

158. The business sector stressed that it was critical to boost the proportion of renewables in the energy mix and suggests the focus should be on wind energy and biomass from energy from the waste sector in the short term but taking Northern Ireland's tremendous marine resources into consideration in the longer term. CBI is particularly concerned about Europe's vulnerability as its future dependence on imported fuel increases. By 2030 Europe will be dependent on imports for 95% of oil, 85% of its gas and 60% of its coal. Consequently CBI is keen for Northern Ireland to develop its natural resources and for businesses to get involved in the renewables sector. To encourage this, CBI believes that government must set clear goals and show cross-departmental and cross-party leadership with a clear regulatory framework. CBI has some concerns about the regulations currently being put forward by DOE as they feel they will not be conducive to achieving the lowest cost delivery of targets. It stressed the need for competitiveness and urged government to ensure planning policies support the development of renewables.^[157]

159. CBI also noted that a number of technical and financial barriers discouraged people and businesses from investing in small low-cost renewables and energy-saving action. It claimed that these could be readily addressed while larger projects might require incentives such as rates rebates.^[158] NICVA also stressed the importance of rates reductions for those willing to introduce renewable technologies into their homes. They noted that small grants would not constitute a huge burden on the public purse but would send a clear signal and could be the

tipping point that would encourage people to invest their own money.^[159] The FSB suggested that VAT should be reduced or abolished for renewable energy.^[160] NICVA also suggested an equity release scheme as an incentive for encouraging the installation of renewables.

160. Several respondents mentioned the need to upgrade the electricity grid to facilitate an increase in the proportion of renewable energy, both from large installations and from micro-generation.^[161] Some respondents also noted the potential advantages of taking a more strategic approach to interconnecting electricity across the island of Ireland.^[162] It was suggested that the benefits of renewable energy sources in particular could be maximised in this way, noting the importance of the further development and delivery of the all-Ireland energy market framework.

161. NIIRTA endorsed the use of rates to encourage carbon emissions reductions and urged the Committee to liaise with DFP to work out how to move forward on Energy Performance Certificates.^[163] However, one respondent was less convinced of the advantages of grants, noting that prices tend to increase when grants are available and the real cost-saving benefits of renewable energy will only be felt when prices come down to a more realistic level.^[164]

162. The BWEA noted that since 1995 initial capital investment in Northern Ireland on renewable energy production has amounted to between £300 and £400 million, not including ongoing income.^[165]

163. It was also frequently pointed out to the Committee that by contributing to a reduced dependence on imported fossil fuels renewables would help increase fuel security and reduce fuel costs. However, there was some concern that the energy distribution monopoly was acting as a deterrent for small renewable projects. Although verbally encouraging renewable energy Northern Ireland Energy (NIE) is not facilitating the connection of small suppliers to the grid.^[166]

164. CNCC noted the need for the total carbon budget of all renewable energy sources to be examined. They feel there is a risk that the use of headline figures could mask the amount of carbon embedded in the manufacture and installation of renewable infrastructure leading to net carbon costs rather than gains in the long term. The Committee asked for more detail on the payback time for greenhouse gas emissions generated in the life cycle of a wind turbine and CNCC indicated that it is generally 3 -6 months compared to 10 years or more for a power station.^[167]

165. The Ulster Farmers' Union (UFU) and others noted the huge potential for producing energy from agricultural waste and linking it to improving water quality but again suggested that many barriers were preventing this potential from being reached.^[168] WWF Northern Ireland also recognised barriers to renewable energy options and called for mandatory priority access to the grid for renewables ahead of fossil fuel power plants. ^[169]

Wind

166. Much of the focus on renewable energy was on wind energy. Wind energy provides a source of fuel that is not subject to geopolitical concerns. Also, the price tends to be stable because once the turbines are in place the cost of the energy is known for 15 years. This should lead to a price reduction in all but the most unusual scenarios according to the BWEA.^[170]

167. The Committee also discussed at length the complications of deciding where wind turbines should be sited. CNCC stressed the need for a balanced view to be taken that encompasses not only landscape character but also the soils of the proposed site.^[171] BWEA maintained that the

setting of renewable energy targets should be based on Northern Ireland's potential to produce renewable energy and the planning approach to wind should flow from these targets rather than the other way round, and noted the need for coherent, strategic and holistic policy making to achieve the necessary targets.^[172] The Committee was advised that current planning policy for renewables, along with its supplementary guidance, will effectively put constraints on the height of wind turbines and stressed that this will result in huge inefficiencies in its wind power generation capability.^[173]

Nuclear

168. Very few respondents referred to the inclusion or exclusion of nuclear in Northern Ireland's energy mix. However, the Committee for Climate Change made it clear that, from a UK perspective although they see nuclear energy as an important contributor to the UK energy mix, the intermittency of wind power becomes more critical where there is more nuclear energy (because as a chemical reaction it is less flexible than a coal/oil or gas fuel source) and this must be taken into consideration.^[174] CBI also suggested that nuclear power might be used in Northern Ireland within the next 10 years and were keen that it should not be ruled out.^[175]

Conclusions

169. The Committee was aware that during the process of this inquiry DETI produced a comprehensive review of renewable energy in Northern Ireland. The Committee welcomed this initiative and made any concerns arising from this inquiry known to DETI during its consultation. The Committee was particularly concerned about barriers currently deterring small renewable energy projects in particular the role of planning, the grid infrastructure and connection charges and feed-in tariffs. The Committee welcomed proposals to look at support mechanisms for heat as well as electricity.

170. The recommendations of this section reflect those made by the Committee to DETI during its consultation on Bioenergy and which are not covered in other parts of the inquiry report

The capacity of the grid infrastructure needs to be strengthened to accommodate the shift in the location of power generation but this must be done in an open and transparent manner.

DETI should seek a practical means of overcoming barriers to renewables caused by high connection charges and low feed-in tariffs.

DETI should investigate the feasibility of support mechanisms for heat generated from renewables.

In light of Northern Ireland's dispersed settlement pattern and the reluctance hitherto demonstrated for bioenergy plants to be built in close proximity to individual and group settlements, Northern Ireland government should reflect on the role of centralised government post Review of Public Administration (RPA) in planning decisions for bioenergy plants.

Transport

171. Most contributors to the inquiry saw transport, which accounts for some 30% of Northern Ireland's CO₂ emissions,^[176] as an area that must be addressed.^[177] There was widespread recognition, including from the Institute of Highways and Transportation (IHT), that long term road transport powered by fossil fuel is not sustainable and contributes to the depletion of a finite stock of fossil fuel and emits increasing amounts of carbon dioxide.^[178] However, there

was recognition that personal cars will continue to be part of transportation in Northern Ireland and so must become more energy efficient.^[179] Similarly, Northern Ireland is currently almost 100% dependent on roads for movement of freight but there are ways in which efficiencies can be improved.^[180] The CCC wants to see more hybrid and electric vehicles being made available from manufacturers by 2020 and over the longer term greater use made of biofuels.^[181] The business sector suggested that 50% of the greenhouse gas reductions that are to be made by 2020 are likely to come from technological developments in the car industry and the use of biofuels. A further 30% is likely to come from eco-driving and a greater utilisation of public transport.^[182]

172. Many respondents also noted the importance of improving public transport and changing behaviour towards it,^[183] as well as encouraging alternative forms of transport such as investment in walking and cycling schemes.^[184] Public transport could be improved by introducing a rapid transport network in Belfast and smaller buses in rural areas operating at more frequent intervals^[185] but must be attractive, affordable and viable.^[186] Planning procedures could and should be used to improve the transport infrastructure according to some respondents.^[187]

173. Increasing the use of electric cars was proposed by many respondents but this will require the right infrastructure and financial commitment.^[188] The Joint Oireachtas Committee on Climate Change and Energy Security has been looking closely at practical ways of solving energy security issues and the impacts on climate change including the damage it will inflict. In its first report the Joint Committee proposes a plan to transform the way in which two million cars in Ireland are powered, to drive down emissions, improve efficiency and reduce costs.^[189] The report argues that because of the way people live in Ireland public transport and bicycles alone will not suffice. The report claims that it is both feasible and realistic to aspire to achieve the complete replacement of petrol and diesel engine driven cars with electric vehicles within 15 years by linking electricity generation and management of the electricity grid with powering cars. It suggests that by linking the energy generation sector, particularly renewables, with fuel demand for transport, a symbiotic relationship between the two sectors will be created that increases the viability of renewables through storage of power and dramatically reduces emissions from transport. The project seeks the cooperation of the Northern Ireland Assembly to make this an all-island project, suggesting it has the potential to create new synergies between the research communities in Ireland and the UK. Other organisations were also supportive of looking towards the electrification of vehicles to help reduce Northern Ireland's emissions, possibly working with the Republic of Ireland, and many noted the need for targets to encourage development in this area, particularly in the public transport system.^[190]

Conclusions

174. The Committee agreed that transport is a key area that must be addressed but Members were very aware of the difficulties of doing this in a dispersed settlement pattern like that found in Northern Ireland. Members stressed the importance of the Regional Development Strategy in the development of a better public transport system and suggested the balance of funding between public and private transport should be revisited. Members welcomed the forthcoming inquiry into sustainable transport announced by the Regional Development Committee.

175. While improving and making public transport more accessible was seen as vital the Committee acknowledged that this would only address problems in urban areas. In rural areas other innovative ideas should be investigated such as sharing transport for carriage of goods and community transport schemes such as those being mooted in conjunction with proposals to lower the blood alcohol limits. In the same vein, the Committee was interested in the proposals being developed in the Republic of Ireland to electrify transport and introduce a portable electric storage scheme. While the Committee felt that the emphasis at this stage should be on public

transport it agreed that the Republic's electrification scheme was innovative and its progress should be monitored.

Recommendations

The balance of funding between public and private transport in the Regional Development Strategy should be revisited with a view to making public transport more user-friendly in terms of accessibility, punctuality and cost.

In rural areas alternative innovative solutions should be introduced such as vehicle sharing and community transport schemes in the short term while more radical solutions to meet Northern Ireland's dispersed settlement patterns in a sustainable way should be sought for the future.

Waste

176. As mentioned earlier^[191] CBI believes that waste should be seen as a valuable energy source. Similarly, the IHT also see waste products having the potential to contribute to Northern Ireland's energy needs^[192] and the utilisation of waste for energy was also encouraged by the agricultural sector.^[193]

177. Not all respondents were in favour of using waste as an energy source where it involved incineration or other thermal waste treatment but most of these support waste to energy solutions where these involved the production of energy from mechanical – biological treatment and anaerobic digestion in combined heat and power plants.^[194]

178. Several respondents were concerned that Northern Ireland would be unable to meet European targets for waste and called for targets to be set in this area that were both achievable and stretching.^[195] NILGA was particularly concerned that the waste management strategy made no reference to climate change.^[196]

179. From a practical perspective it was suggested that people need to be made more aware that waste is linked to carbon footprints and that reducing waste can help tackle climate change. They should also be encouraged to consider the 'waste hierarchy' or reduce, reuse, recycle and helped to choose and use products that generate the least waste.^[197]

180. Councils play a key role in making waste minimisation easier for households and the current wide range of services in different areas is confusing for the public. The efforts of councils in facilitating waste minimisation should therefore be more coordinated.^[198] ARC 21 stated the importance of measures and resources being made available to support the delivery of targets and that research is required to determine the most appropriate targets and programmes.^[199]

181. The SDC suggested government should draw on examples of waste saving from the private sector if it hoped to reach its targets of having a carbon neutral estate by 2015.^[200] During its evidence, DOE recognised the importance of waste management in achieving carbon neutrality of the government estate but also noted the importance of reusing and preventing waste. It indicated that there are examples where Northern Ireland is ahead of other UK regions in relation to waste management actions.^[201]

Conclusions

182. The Committee believes that the public are now sufficiently aware of the importance of waste in relation to carbon footprint but that more needs to be done to facilitate and incentivise

attitudinal and behavioural change. The Committee suggests that DOE leads on the development of measures to address this but that they are delivered by local authorities.

183. The Committee is concerned that in the absence of immediate action reduced landfill targets will not be met. EU fines will be costly to the Northern Ireland purse in the first instance but ultimately will be borne by ratepayers. Members therefore suggested that the focus of awareness-raising among the public is on the risk of fines and that these will ultimately impinge on rates. The Committee felt that local authorities should be encouraged to introduce more proactive measures to encourage better separation of waste streams and recycling and suggests that graduated penalties, from warning notes to fines, be introduced for persistent irresponsible behaviour.

184. The Committee also calls on local authorities to look at new ways to support businesses, particularly small and medium enterprises, in improving their waste management.

Recommendations

DOE should develop a series of measures to be delivered by local authorities that will lead to attitudinal and behavioural change in relation to waste. The introduction of penalties should be considered for persistent irresponsible behaviour in relation to separating waste streams and recycling.

Small and medium enterprises should be provided with more assistance in their waste management by local authorities.

Land Use

Agriculture, Forestry and Food

185. All respondents to the inquiry that commented on this aspect acknowledged agriculture as a major contributor to greenhouse gas emissions in Northern Ireland.^[202] However, most recognised that the contribution of agriculture to the economy is greater in Northern Ireland than other parts of the UK and suggested that, while agriculture will be expected to make a significant contribution to reducing emissions, it is acceptable that other sectors may have to deliver more emission reductions to compensate for the difficulties the agricultural sector faces.^[203] DOE suggested that because of the significance of the agriculture sector in Northern Ireland achieving targets for CO₂ emission reductions in this sector would have a greater benefit in Northern Ireland than if the same measures were introduced in England.^[204]

186. The industry itself identified that agricultural emissions in Northern Ireland are likely to be proportionately higher than other parts of the UK. As a grass-based livestock region methane and nitrous oxide emissions are high. These are considered many times more damaging than CO₂ in terms of affecting climate change. However, the UFU stressed the need for any reduction targets to be realistic and based on sound science that is applicable to Northern Ireland farming practices and also not to lead to changes in practice that may otherwise be less desirable or undermine long term objectives.

187. UFU also urged that there is full recognition of the contribution agriculture is already making to reducing its impact on climate change through deliberate changes in practice. For example, implementation of the Nitrates Action Plan which has substantially reduced the amount of nitrogen dioxide lost to the atmosphere,^[205] and more passively through the 'CO₂ sink' potential of land.^[206]

188. The environmentally-focused respondents urged better land management in the face of climate change to provide buffers and linkages outside the protected area network to allow for wildlife to accommodate and adjust to changes in climate and habitat as a result of climate change.^[207] Many respondents suggested that protecting the natural environment would also pay dividends in the fight to reduce emissions such as planting trees.^[208] It was also noted that competing land uses for energy and food need to be addressed.^[209]

189. Several groups mentioned the potential of the Northern Ireland agricultural industry to contribute positively to addressing climate change through providing raw materials for energy production. Such opportunities include biomass, agricultural wastes, anaerobic digestion and slurries and sludges.^[210] The need for a renewable heat strategy was mentioned by RICS as a useful stimulus to developing this industry.^[211]

190. On a visit to the Agri-Food and Biosciences Institute, Hillsborough, the Committee saw an anaerobic bio-digester in operation. Members also saw examples of renewables resources providing electricity, heat and a range of materials for building and construction.^[212] Members were particularly interested to learn of the research potential of the Institute for renewables and waste in Northern Ireland.

191. The agricultural industry stressed that policies put in place to meet emissions targets should not lead to rising production costs as this will result in higher food prices and ultimately a shift in food production away from Northern Ireland.^[213] CIEH pointed out that a move away from meat and dairy based diets is in the long term beneficial for both health and in terms of greenhouse gas emissions but the Committee was urged not to encourage government to pursue this policy through enforced destocking without consumer behavioural change as this will risk increasing imports to replace local produce.^[214]

192. Some respondents recommended the use of labelling to inform consumers how much carbon had been emitted in the production and transport of food items.^[215] This was largely seen as a mechanism to encourage local food production and consumption but the food industry in Northern Ireland is particularly concerned by recent pressure from major retailers and food outlets to introduce a carbon labelling scheme for food. The marketing initiative being introduced purports to provide consumers with information that will enable them to choose between food products based on the amount of CO₂ emitted during its production. However, the industry is concerned that, based on the limited information required, this scheme will encourage production methods that mask damaging practices or which are banned within Europe.^[216]

193. Similar concerns were raised by the RCCF that advises the Department of Environment, Food and Rural Affairs (DEFRA) on rural climate change policies. In a meeting with the Committee the Forum outlined its concerns about future food security and the importance of agriculture playing its part in tackling climate change without leaving the industry unable to produce food. The Forum drew the Committee's attention to a marginal abatement cost curve for agriculture which identified a series of actions that could be undertaken by the farming industry to reduce emissions. These ranged from 'easy' win-win activities that often reflect good practice and pay the farmer back through cost savings as well as reducing emissions such as timing of organic manure application, to more expensive and less cost effective options, such as the introduction of nitrification inhibitors and special breeding.^[217] It is assumed that initially uptake of the easier options will be encouraged and these will quickly reduce agricultural emissions but to achieve the targets in the UK Climate Change Act there will eventually be a requirement to move to the more expensive options.^[218] It is therefore essential that the Northern Ireland agriculture industry has accurate information in terms of emissions from current practices rather than using more general UK data.^[219]

194. The feasibility of emissions trading for the agricultural and forestry sectors was also considered.^[220] It was suggested such schemes could be costly and difficult but that small project-based schemes might be possible. It might be more feasible to look at schemes one step removed from producers such as feed and fertiliser schemes.^[221]

195. The Committee was also warned of the risk of 'perverse' outcomes resulting from climate change within the agricultural sector.^[222]

196. The Woodland Trust believes that woodland can play a crucial part in helping Northern Ireland negate and adapt to climatic change and suggests the Northern Ireland Sustainable Development Strategy should align its woodland target to that of the Northern Ireland Forestry A Strategy for Sustainability and Growth by committing itself to doubling woodland cover in the province.^[223]

Conclusions

197. The Committee recognised the importance of the agri-food sector to the Northern Ireland economy and agreed that whilst greenhouse gas emission reduction targets should be set for this sector, these will probably be proportionately lower than other sectors, which will be required to compensate accordingly. There should also be recognition of potential perverse outcomes that may arise if emission reduction targets are the sole focus and the Committee urges that decisions are made in a balanced way that recognises the range of benefits provided by Northern Ireland's agricultural production systems.

198. The Committee welcomed the wealth of information provided by DEFRA's Rural Climate Change Forum and would like to see its influence extend further into Northern Ireland or preferably, if feasible, an equivalent advisory body established for Northern Ireland by DARD, DOE and DETI.

199. The Committee noted the importance of the forthcoming Rural White Paper and stressed the importance of reflecting the impact that climate change mitigation and adaptation will have on rural dwellers in general as well as addressing the role and responsibilities of the agri-food sector in relation to climate change targets.

200. The Committee welcomed the work already being done by the Agrifood and Biosciences Institute at Hillsborough and urged that this work be enhanced. In particular the Committee would like to see greater dissemination of its research findings that offer win-win scenarios of lower emissions and greater profitability. Similarly it suggests that pure research into reducing emissions being carried out at the Institute should be accompanied by information on the economics of any new approaches. The Committee suggests that the Institute is recognised more widely across government as a resource for more general climate change-linked research especially in the areas of renewable fuels and materials and waste management.

201. The Committee also stressed its concern about the increasing use of Publicly Audited Standard (PAS) 2050 by retailers and food processors. The Committee did not believe this standard was sufficiently robust or comprehensive to provide accurate information on the carbon cost of food production and felt that its use presented a significant risk to highly vulnerable areas of the globe and could mislead consumers as to the impact of the purchase decisions.

Recommendations

Greenhouse gas emission reduction targets should be set for the agri-food sector that acknowledge the contribution of the sector to greenhouse gas emissions but reflect the

importance of the sector for the Northern Ireland Economy and preserve the many-faceted benefits delivered by the sector for society.

A local climate change advisory body based on the DEFRA's Rural Climate Change Forum model should be established in Northern Ireland.

The Rural White Paper should reflect the impact of climate change mitigation and adaptation on rural dwellers in general and address the role and responsibilities of the agri-food sector in relation to climate change targets.

AFBI Hillsborough's research facility for waste management and renewable fuels and materials should be recognised across government as a source of local climate change research. Current AfBI research that identifies agricultural practices with lower emissions and greater profitability should be disseminated quickly and widely and all research into reducing emissions should be accompanied by economic comparison studies.

The acceptance of Publicly Audited Standard 2050 as a measure of the carbon cost of food should be postponed in Northern Ireland until it has been made sufficiently robust to protect the globe's most vulnerable habitats and provide accurate and comprehensive information about agricultural production systems.

Biodiversity

202. Some organisations referred to the importance of biodiversity and ecological systems when considering climate change both at Northern Ireland level^[224] and more globally where often it is the poorest countries that are tasked with adapting to the unavoidable effects of climate change.^[225] Urgent action was called for to increase ecological resistance and biodiversity to adapt to changing climate conditions.^[226]

203. NICVA stressed the importance of being prepared to adapt to the changes that climate change will bring and recommended the findings of the first Scottish and Northern Ireland Forum for Environmental Research report which highlighted adaptation responses in areas such as habitats, agriculture, forestry and fisheries.^[227] The need to plan strategically, pilot new approaches, identify win-win solutions and understand the role of biodiversity in providing ecosystem services was also stressed.^[228]

204. Careful management of biodiversity has considerable potential to mitigate climate change. Conversely, misuse of biodiversity has the potential to make climate change more severe by releasing extra CO₂ and methane into the atmosphere, for example by destroying carbon sinks such as woodlands and releasing methane when extracting peat.^[229] There is considerable potential to mitigate against local climate change impacts and reduce GHG emissions through proper land management, including avoiding destruction of biodiversity, restoring habitats and using biodiversity to mitigate against consequences.^[230] The Royal Society for the Prevention of Birds (RSPB) urged that all existing commitments for habitat and species protection through Habitat Action Plans and designation of ASSIs be fulfilled, and that a target be set to get 50% of all agricultural land in agri-environment schemes by 2013.^[231]

205. DEFRA has developed a series of principles that are fundamental to conserving biodiversity and, while many of the elements are not new, they demand a new impetus with the pressures and threats presented by a rapidly changing climate.^[232]

206. Several respondents mentioned the moral imperative for Northern Ireland to support and assist the developing world to adapt to the impacts of climate change and urged action from the principle of equity and human rights.[\[233\]](#)

Conclusions

207. The Committee agreed that DEFRA's guiding principles for protecting biodiversity should be incorporated into Northern Ireland's climate change strategy (Chapter 4).

208. The Committee believes as a matter of social justice that Northern Ireland has a duty to recognise the global impacts of climate change on the developing world and that this should act as a driver for delivering the recommendations in this report.

Recommendations

DEFRA's guiding principles for protecting biodiversity should be incorporated into Northern Ireland's climate change strategy.

As a matter of social justice, Northern Ireland government has a duty to recognise the global impacts of climate change on the most vulnerable people and places and this should act as a driver for the delivery of the recommendations of this report.

9. Adaptation

209. Many respondents stressed that adaptation is intrinsically linked to mitigation and it is essential that both be addressed as a matter of urgency. They suggested that the Northern Ireland Assembly should introduce cross-departmental policies and measures which will allow people, infrastructure, biodiversity and natural systems to adapt to changing climate conditions.[\[234\]](#)

210. As mentioned previously[\[235\]](#) DEFRA has developed a set of principles to guide the process of adaptation to climate change which include:

- taking practical action now,
- maintaining and increasing ecological resistance,
- accommodating change,
- integrating action across partners and sectors,
- developing knowledge and
- planning strategically

211. Several respondents, in particular NICCIP and the Irish Academy of Engineering[\[236\]](#) mentioned the importance of critical infrastructure and ensuring that it is prepared for climate impacts, including action plans for emergency failures. RTPI commented on the importance of planning now for the impacts of climate change and that all new buildings must meet both adaptation and mitigation standards.[\[237\]](#)

212. NICCIP also stated that by its very nature adaptation is not amenable to targets, but recognised that targets may be a necessary mechanism to achieve action. It stated that all new buildings and infrastructure should be fit for the future including both adaptation and mitigation measures. This view was widely supported.[\[238\]](#) The National Trust emphasised the economic

impacts of climate change on tourism and its sites which will be increasingly affected by rising sea levels, and it too recommended that all structures should be built with the impacts of climate change in mind, including water conservation.^[239]

213. Many respondents recognised there is a risk of adaptation conflicting with mitigation when short term decisions could compromise long term objectives.^[240] Some of these risks have been alluded to during specific sectors of the report such as agriculture^[241] and renewable wind power^[242] but in general it means avoiding damaging practices to adapt to the current situation (e.g. using fossil fuel powered air conditioning systems during hot summers).^[243]

214. As discussed earlier^[244] Northern Ireland has no overarching strategy or road map for delivering climate change goals.^[245] Scotland is in the process of consulting for the second time on a Climate Change Adaptation Framework and intends to ensure that Scotland will be better placed to take advantage of any opportunities and build its resilience to any potential negative consequences change brings.^[246]

215. Similarly the Welsh Assembly Government has begun work on a Climate Change Adaptation Action Plan that recognises that action is needed at all levels and across all sectors. It will focus on better understanding about the impacts and consequences of climate change, build resilience by requiring adaptation to be embedded into policies, programmes and delivery of services and equip and inform stakeholders by communicating the need to take action, helping them to develop the skills and providing the tools to build capacity and inform decision making.^[247]

Conclusions

216. The Committee agreed in Chapter 4 that Northern Ireland should have a Climate Change Implementation Strategy which encompasses both mitigation and adaptation and that this should include DEFRA's principles for guiding the process of adaptation to climate change.

217. More specifically the Committee felt that similar to other jurisdictions, responsibility for development and implementation of adaptation actions should be the responsibility of the relevant individual departments. However, the department with responsibility for climate change policy should have a centralised coordination role and ultimate responsibility for delivery of adaptation measures. This should be supported by transparent accountability mechanisms to ensure delivery.

Recommendations

Individual departments should have responsibility for developing and implementing climate change adaptation activities relating to their functions, in accordance with the Northern Ireland Climate Change Implementation Strategy. The ultimate responsibility for the delivery of adaptation plans should be centralised with whichever department has responsibility for climate change policy and achieved by establishing transparent mechanisms for monitoring and reporting.

10. Sustainable Development

218. Several respondents identified an opportunity to link addressing climate change with sustainable development,^[248] and some were disappointed that the Sustainable Development Strategy had failed to deliver on its promises.^[249] Nonetheless, many were concerned that the Sustainable Development Action Plan target for reducing greenhouse gas emissions by 25% by

2025 on 1990 levels was insufficient to ensure that Northern Ireland delivered its fair contribution to emission reductions required by the UK Climate Change Act.[\[250\]](#)

219. In response to a question by the Committee, DOE made it clear that no determination has been made in Northern Ireland as to what is a 'fair share' of UK emissions[\[251\]](#) and UK emissions reduction targets have not been allocated for each constituent UK country. This aspect is covered in more detail in the Targets and Budgets Section of the report.[\[252\]](#)

220. Despite some scepticism about the lack of progress on the Sustainable Development Strategy, many respondents stated that integrating climate change targets within the Sustainable Development Strategy and its Implementation Plan(s) has great merit.[\[253\]](#)

221. One of the specific Terms of Reference for this Inquiry was to determine specifics of this relationship and most respondents addressed this by recognising that an integrated approach is required. They suggested that the SDS offers good opportunities, if properly implemented, to deliver on the cross-departmental and inter-sectoral aspects of climate change. The opportunity for 'joined up government' on these two closely related aspects was repeatedly mentioned[\[254\]](#) as were the public awareness aspects of addressing the two concepts together.

222. Several respondents pointed out that having different targets within different government strategies is not helpful and must be addressed with a single set of coherent 'SMART' targets which can then be monitored and reported upon.[\[255\]](#) Several respondents stated that a sustainable development strategy should be inspirational and substantial and go beyond a 'box ticking' exercise if it is to achieve meaningful results and inspire public commitment.[\[256\]](#) Others stated the importance of public involvement and encouraged the development of an appropriate incentivisation scheme to gain the support and involvement of the public.[\[257\]](#)

223. CIEH made the point that climate change is a huge risk to public health and that this has implications in many areas and should be a major consideration when establishing communication and funding mechanisms. Addressing climate change can tackle the root causes of many diseases including obesity, heart disease and cancer and can bring direct benefits to both public health and carbon targets.[\[258\]](#)

224. CIEH also stressed that making the linkages apparent to the public will allow the synergistic benefits to be fully realised and bring financial and social benefits. A coordinated message will bring greater support from the public and understanding of the relevance of action to people's daily lives. Major areas of interaction include the mutual benefits of increasing physical activity through walking and cycling on human health and reducing transport emissions.[\[259\]](#)

225. NILGA and Sustainable Northern Ireland (SNI) made the specific point that a Minister should be given specific responsibility for climate change, perhaps in conjunction with responsibility for sustainable development.[\[260\]](#) The SDC stated that the current Duty for Sustainable Development needs to be strengthened, including in relation to climate change.[\[261\]](#)

226. The Targets and Budgets section (Chapter 5) and Chapter 8 on sectoral areas for action for specific proposals for inclusion within sustainable development and climate change implementation plans of this report provide greater detail in this area. Additional and very detailed information was provided by a number of respondents which goes beyond the scope of this report.[\[262\]](#)

227. The need for a coordinated approach across sectors, including business and education, was mentioned by several respondents.[\[263\]](#) They indicated that adopting such an approach could bring many benefits and opportunities to successfully implement both sustainable development and climate change actions. Many respondents stated that all sectors, especially business, need

to be engaged early and constructively and involved in the debate around appropriate actions.^[264]

Conclusions

228. The Committee was adamant that the Northern Ireland Sustainable Development Strategy must recognise climate change as the most significant issue that it is trying to address. Consequently it agreed that the Sustainable Development Strategy and/or Action Plan should include targets for reducing greenhouse emissions that will ensure Northern Ireland makes a fair and proportionate contribution to the reduction targets agreed in the UK Climate Change Act. Members also wanted to see mechanisms for monitoring, reviewing and reporting included in the Sustainable Development Strategy.

229. The Committee recognised the potential for difficulties as a result of Sustainable Development and Climate Change Policy being the remit of two different departments but maintained that suitable linkages must be established to prevent climate change objectives being undermined. The Committee felt that a comprehensive sustainable development communications strategy should be led by OFMDFM and identify the necessary linkages between DOE, local authorities and communities, so that climate change objectives can be delivered through the sustainable development strategy at local level. Members also felt that the wealth of information on good practice held within the Non-Government Organisation (NGO) sector should be recognised and valued and utilised appropriately in the preparation of the strategy.

230. The duty on local authorities to deliver sustainable development, and through it climate change objectives, was seen by the Committee as an important role that should be expanded on particularly in key areas of responsibility such as the development of area plans and community planning. However, it was recognised that this would need to reflect the limits of enforceability and power at local authority level and have sufficient room to adapt to any future changes in delivery as a result of the Review of Public Administration. The need for support and guidance from the centre was reiterated, as discussed previously in Chapter 6, Structures and Accountability; Role and Responsibilities of Local Authorities.

Recommendations

Climate change should form an integral part of the Northern Ireland Sustainable Development Strategy. The Strategy and/or Action Plan should include targets that will ensure Northern Ireland makes a fair and proportionate contribution to UK targets along with mechanisms for monitoring, reviewing and reporting.

Sustainable linkages must be established between OFMDFM and DOE to ensure synergistic delivery of climate change objectives across central government and local government and OFMDFM should lead on a communications strategy that will establish these links. Non-Government Organisations should be invited to contribute to and participate in the preparation of the strategy.

Climate change objectives should be delivered at local authority level through a strengthened sustainable development duty with support and guidance from central government. Areas of responsibility should reflect the enforceability powers of local authorities and delivery mechanisms should be sufficiently adaptable to allow for changes that may occur as a result of the Review of Public Administration.

11. Cross-cutting approaches

231. Many respondents referred the Committee to the Green New Deal and the Committee was interested to learn more about this initiative.[\[265\]](#)

232. The Green New Deal for Northern Ireland is a joined up approach to the 'triple crunch' of recession, rising energy prices and climate change. Like its UK equivalent developed during the economic recession of 2008, it is based on the principle that investing in an ambitious programme to cut consumption of fossil fuels can create thousands of new jobs, help secure the energy supply and build a competitive low-carbon economy.[\[266\]](#)

233. The Northern Ireland Green New Deal Group is led by CBI, Irish Congress of Trade Unions, NICVA, UFU and Friends of the Earth and its vision is to:

- Refurbish tens of thousands of existing homes each year with full insulation and renewable energy, including the 137,000 homes that fail to meet the Decent Homes Standard and thus making significant inroads into fuel poverty.
- Transform the energy performance of public and commercial buildings through energy efficiency measures and making 'every building a power station'.
- 'Decarbonise', regionalise and localise the supplies of both electricity and heat through large-scale renewables, micro-generation and using fossil fuels more efficiently.
- Employ a 'carbon army' of high- and lower-skilled workers to implement this vast systematic reconstruction programme creating around 24,000 new jobs.
- Transform our transport system to be fit for purpose in the coming era of high oil and carbon prices by providing a real public transport choice for everyone.
- Create thousands of 'green collar' jobs in the £3,000 billion world market for Low Carbon Environmental Goods and Services.
- Develop a wide-ranging package of financial innovations and incentives to assemble and leverage the very large sums needed to implement such a programme, based on collaboration and partnership between the public sector, the private sector, other stakeholders and the public.[\[267\]](#)

234. In the UK the green new deal packages offer direct financial return to the economy in a range of ways such as fuel and resource saving, lower social costs and more efficient services through reduced congestion costs and lower pollution levels. Nonetheless, there are still challenges in raising the funds to invest in these measures and suggestions to overcome these include environmental taxes, green bonds and reward sharing.[\[268\]](#)

235. As with climate change itself many of the actions required by the Green New Deal largely fall to departments other than DOE.[\[269\]](#) Of the aspirations proposed in the Green New Deal, energy-related actions are the responsibility of DETI, housing DSD and DFP, up-skilling and re-skilling DEL and transport DRD. Nonetheless the Committee was keen to find out more about practical initiatives such as this and consider how it might be adopted.[\[270\]](#)

236. In addition to the collaborative working demonstrated by the cross-sectoral involvement of the Green New Deal several respondents were keen to see Northern Ireland work more collaboratively with other jurisdictions. Some referred to the need to avoid distortions to energy prices on the island of Ireland and welcomed the all-Ireland energy market framework accordingly.[\[271\]](#)

Conclusions

237. The Committee welcomed the Green New Deal approach and commended in particular the proposals for drawing down funding. However, Members noted this is just one example of ways to go forward on action for climate change, and urged government not to rule out examples from other jurisdictions.

238. The Committee noted that public funding for initiatives like the green new deal should be well supported and provide sufficient incentive for uptake. Funding should be additional not substituted.

239. Finally the Committee suggested that the Green New Deal or its equivalent should be incorporated into appropriate Public Service Agreements for the next Programme for Government.

Recommendations

The Green New Deal approach is welcome and government should be willing to provide its share of additional funding to support its uptake and to incorporate it into Public Sector Agreements. Alternative approaches from other jurisdictions should be monitored and included where appropriate.

[1] Appendix 3, Department of Environment written submission

[2] Appendix 5, Assembly Research paper on Climate Change Policy Framework in NI

[3] Appendix 5, Departmental replies on PSAs

[4] Appendix 3, Department of the Environment written submission

[5] Appendix 5, Assembly Research Paper on Climate Change: Republic of Ireland, Wales and the North-South Ministerial Council

[6] Appendix 5, Assembly Research Paper on Climate Change: Republic of Ireland, Wales and the North-South Ministerial Council

[7] Appendix 5, Assembly Research Paper on Climate Change: Republic of Ireland, Wales and the North-South Ministerial Council

[8] Appendix 2, Carbon Trust oral evidence (11 June 2009), Sustainable Development Commission NI oral evidence (7 May 2009), Council for Nature Conservation and the Countryside NI oral evidence (28 May 2009).

[9] Appendix 5, Department of the Environment reply on PSAs

[10] Appendix 2, Committee meeting with the Climate Change Unit, DOE, 25 June 2009

[11] Appendix 3, Carbon Trust oral evidence (11 June 2009), Ms Bairbre de Brún MEP oral evidence (11 June 2009), Appendix 3, Council for Nature Conservation and the Countryside written submission

[12] Appendix 3, Council for Nature Conservation and the Countryside NI written submission

[13] Appendix 2, Council for Nature Conservation and the Countryside NI oral evidence (28 May 2009).

[14] Appendix 2, Northern Ireland Council for Voluntary Action oral evidence (7 May 2009), Chartered Institute for Environmental Health oral evidence (21 May 2009), Northern Ireland Local Government Association oral evidence (21 May 2009).

[15] Appendix 2, Carbon Trust oral evidence (11 June 2009), Sustainable Development Commission NI oral evidence (7 May 2009), Confederation of British Industry oral evidence (14 May 2009).

[16] Appendix 2, Northern Ireland Local Government Association oral evidence (21 May 2009), Confederation of British Industry oral evidence (14 May 2009).

[17] Appendix 3, Confederation of British Industry written submission, Institute of Directors written submission

[18] Appendix 2, Northern Ireland Council for Voluntary Action oral evidence (7 May 2009).

[19] Programme for Government, Sustainable Development Strateg

[20] Appendix 2, Sustainable Development Commission NI oral evidence (7 May 2009)

[21] Appendix 2, Confederation of British Industry oral evidence (14 May 2009).

[22] Appendix 2, Confederation of British Industry oral evidence (14 May 2009), Appendix 3, Federation of Small Businesses written submission

[23] Appendix 2, Federation of Small Businesses written submission, Carbon Trust written submission, Energy Saving Trust written submission, Northern Ireland Independent Retail Trade Association written submission, Confederation of British Industry written submission

[24] Appendix 2, Confederation of British Industry oral evidence (14 May 2009), Met Office oral evidence (7 May 2009)

[25] Appendix 3, Ulster Farmers' Union written submission

[26] Appendix 2, Hans Schreuder oral evidence (21 May 2009), Appendix 3, Hans Schreuder written submission

[27] Appendix 2, Ms Bairbre de Brún MEP oral evidence (11 June 2009), Northern Ireland Council for Voluntary Action oral evidence (7 May 2009), Chartered Institute for Environmental Health oral evidence (21 May 2009), British Wind Energy Association oral evidence (14 May 2009), Council for Nature Conservation and the Countryside oral evidence (28 May 2009)

[28] Appendix 3, Ulster Farmers' Union written submission

[29] Appendix 2, Ms Bairbre de Brún MEP oral evidence (11 June 2009)

[30] Appendix 3, Ulster Farmers' Union written submission, Appendix 3, Ulster Farmers' Union oral evidence (21 May 2009), Appendix 2, Federation of Small Businesses written submission

[31] Appendix 3, Confederation of British Industry written submission

[32] Appendix 3, Ulster Farmers' Union written submission

[33] Appendix 2, Ms Bairbre de Brún MEP oral evidence (11 June 2009), Appendix 3, Northern Ireland Council for Voluntary Action written submission, Chartered Institute for Environmental Health written submission, British Wind Energy Association written submission, Council for Nature Conservation and the Countryside written submission

[34] Appendix 2, Ms Bairbre de Brún MEP oral evidence (11 June 2009)

[35] Appendix 2, Northern Ireland Council for Voluntary Action oral evidence (7 May 2009)

[36] Appendix 2, Northern Ireland Local Government Association oral evidence (21 May 2009), Sustainable Development Commission NI oral evidence (7 May 2009)

[37] Appendix 5, Departmental replies on the extent PSAs contribute to NI's emission reduction target

[38] Appendix 5, Climate Change Unit response to Committee queries

[39] Appendix 2, Council for Nature Conservation and the Countryside oral evidence (28 May 2009)

[40] Appendix 3, Ms Bairbre de Brún written submission, Sustainable Development Commission NI written submission

[41] Appendix 3, Confederation of British Industry written submission, Ms Bairbre de Brún MEP written submission

[42] Appendix 5, Climate Change Unit response to Committee queries

[43] Appendix 5, Assembly Research paper, Climate Change: Republic of Ireland, Wales and the North-South Ministerial Council

[44] Appendix 2, Northern Ireland Local Government Association oral evidence (21 May 2009), Council for Nature Conservation and the Countryside NI oral evidence (28 May 2009)

[45] Appendix 2, Northern Ireland Council for Voluntary Action oral evidence (7 May 2009)

[46] Appendix 3, Sustainable Development Commission NI oral evidence written submission, Council for Nature Conservation and the Countryside NI written submission

[47] Appendix 2, Confederation of British Industry oral evidence (7 May 2009)

[48] Appendix 2, Northern Ireland Council for Voluntary Action oral evidence (7 May 2009)

[49] Appendix 2, Ms Bairbre de Brún MEP oral evidence (11 June 2009), Northern Ireland Council for Voluntary Action oral evidence (7 May 2009), Chartered Institute for Environmental Health oral evidence (21 May 2009), British Wind Energy Association oral evidence (14 May 2009), Council for Nature Conservation and the Countryside oral evidence (28 May 2009)

[50] Appendix 2, Northern Ireland Council for Voluntary Action oral evidence (7 May 2009), Council for Nature Conservation and the Countryside oral evidence (28 May 2009), Ms Bairbre de

Brún MEP oral evidence (11 June 2009), Chartered Institute for Environmental Health oral evidence (21 May 2009)

[51] Appendix 2, Council for Nature Conservation and the Countryside oral evidence (28 May 2009)

[52] Appendix 2, Northern Ireland Council for Voluntary Action oral evidence (7 May 2009)

[53] Appendix 5, Climate Change Unit response to Committee queries

[54] <http://www.niea.org.uk/reports.php?list=GHG>

[55] Appendix 5, Climate Change Unit response to Committee queries

[56] Appendix 5, Climate Change Unit presentation

[57] Appendix 2, Ms Bairbre de Brún MEP oral evidence (11 June 2009), Carbon Trust oral evidence (11 June 2009)

[58] Appendix 2, Sustainable Development Commission NI oral evidence (7 May 2009), Energy Saving Trust oral evidence (14 May 2009), Council for Nature Conservation and the Countryside oral evidence (28 May 2009)

[59] Appendix 2, Energy Saving Trust oral evidence (14 May 2009), Appendix 2, Ulster Farmers' Union written submission

[60] Appendix 2, Council for Nature Conservation and the Countryside oral evidence (28 May 2009)

[61] Appendix 2, Confederation of British Industry oral evidence (14 May 2009), Energy Saving Trust oral evidence (14 May 2009), Appendix 3, Council for Nature Conservation and the Countryside written submission, British Wind Energy Association written submission, Chartered Institute of Environmental Health written submission

[62] Appendix 2, Committee on Climate Change oral evidence (7 May 2009), Confederation of British Industry oral evidence (14 May 2009)

[63] Appendix 2, Confederation of British Industry oral evidence (14 May 2009)

[64] Appendix 3, Ulster Farmers' Union written submission

[65] Appendix 2, Confederation of British Industry oral evidence (14 May 2009)

[66] Appendix 3, Committee on Climate Change written submission

[67] Appendix 3, Council for Nature Conservation and the Countryside written submission, Sustainable Development Commission NI written submission, Northern Ireland Council for Voluntary Action written submission

[68] Appendix 2, Met Office oral evidence (7 May 2009), Appendix 3, Met Office written submission

[69] Appendix 2, Council for Nature Conservation and the Countryside oral evidence (28 May 2009), Appendix 3, Sustainable Development Commission written submission, Appendix 2, Sustainable Development Commission oral evidence, Appendix 2, Northern Ireland Council for Voluntary Action oral evidence (7 May 2009), Appendix 3, Northern Ireland Council for Voluntary Action written submission, Appendix 2, Northern Ireland Local Government Association oral evidence (21 May 2009), Appendix 3, Northern Ireland Local Government Association written submission, Appendix 3, Confederation of British Industry written submission

[70] Appendix 3, Council for Nature Conservation and the Countryside written submission, Appendix 2, Northern Ireland Council for Voluntary Action oral evidence (7 May 2009), Appendix 3, Northern Ireland Council for Voluntary Action written submission, Appendix 3, Sustainable Development Commission written submission, Appendix 2, Sustainable Development Commission oral evidence (7 May 2009)

[71] Appendix 5, Assembly Research Paper – Climate Change Policy Framework in NI

[72] Appendix 5, Assembly Research Paper – Climate Change Policy Framework in NI

[73] Appendix 1, Minutes of Proceedings of the Committee Relating to the Report (7 May 2009)

[74] Appendix 2, Carbon Trust oral evidence (11 June 2009)

[75] Appendix 5, Climate Change Unit response to Committee queries

[76] Appendix 3, Northern Ireland Climate Change Impacts Partnership written submission, Carbon Trust written submission, Council for Nature Conservation and the Countryside written submission, Sustainable Development Commission written submission

[77] Appendix 2, Climate Change Coalition Northern Ireland oral evidence (28 May 2009)

[78] Appendix 5, Assembly Research Paper Climate Change: Republic of Ireland, Wales and the North-South Ministerial Council

[79] Appendix 5, Notes of meetings of Committee visit to London, Reply from Department of the Environment Heritage and Local Government, Reply from Scottish Climate Change and Water Industry Directorate, Reply from Transport Infrastructure and Climate Change Committee, Reply from Welsh Sustainability Committee

[80] Chapter 3 Paragraph 24

[81] Appendix 3, Sustainable Development Commission NI written submission, Council for Nature Conservation and the Countryside NI written submission

[82] Chapter 10 Sustainable Development Strategy

[83] Appendix 5, Notes of meetings of Committee visit to London

[84] Appendix 5, Assembly Research Paper Climate Change: Republic of Ireland, Wales and the North-South Ministerial Council, Notes of meeting with the Joint Oireachtas Committee on Climate Change and Energy Security

[85] Appendix 3, Sustainable Development Commission NI written submission

[86] Appendix 3, Sustainable Development Commission NI written submission, Northern Ireland Climate Change Impacts Partnership written submission

[87] Chapter 4 Paragraph 42

[88] Appendix 2, Confederation of British Industry oral evidence (14 May 2009)

[89] Appendix 3, Ulster Farmers' Union written submission, Confederation of British Industry written submission

[90] Appendix 2, British Wind Energy Association oral evidence (14 May 2009)

[91] Appendix 3, Confederation of British Industry written submission, Council for Nature Conservation written submission, British Wind Energy Association written submission, Chartered Institute of Environmental Health written submission

[92] Appendix 2, Committee on Climate Change oral evidence (7 May 2009), Appendix 3, Committee on Climate Change written submission, Appendix 2, Met Office oral evidence (7 May 2009)

[93] Appendix 2, Sustainable Development Commission NI oral evidence (7 May 2009), Appendix 3, Sustainable Development Commission NI written submission, Appendix 2, Confederation of British Industry oral evidence (14 May 2009), Appendix 3, Confederation of British Industry written submission

[94] Appendix 3, Sustainable Development Commission NI written submission, Confederation of British Industry written submission, Council for Nature Conservation and the Countryside NI written submission, Northern Ireland Council for Voluntary Action written submission

[95] Appendix 3, Council for Nature Conservation and the Countryside NI written submission, Northern Ireland Council for Voluntary Action written submission, Sustainable Development Commission NI written submission

[96] Appendix 3, Council for Nature Conservation and the Countryside NI written submission, Northern Ireland Council for Voluntary Action written submission, Sustainable Development Commission NI written submission

[97] Appendix 2, Carbon Trust oral evidence (11 June 2009)

[98] Appendix 3, Conservation Volunteers NI written submission, Council for Nature Conservation and the Countryside NI written submission, Northern Ireland Environment Link written submission, Chartered Institute for Environmental Health written submission

[99] Appendix 3, Council for Nature Conservation and the Countryside NI written submission, Northern Ireland Council for Voluntary Action written submission, Sustainable Development Commission NI written submission

[100] Appendix 3, Council for Nature Conservation and the Countryside NI written submission, Northern Ireland Council for Voluntary Action written submission, Sustainable Development Commission NI written submission, Confederation of British Industry written submission

[101] Appendix 3, Committee on Climate Change written submission

[102] Appendix 3, Sustainable Development Commission NI written submission, Council for Nature Conservation and the Countryside NI written submission, British Wind Energy Association written submission

[103] Appendix 3, Sustainable Development Commission NI written submission, Council for Nature Conservation and the Countryside NI written submission

[104] Appendix 3, Sustainable Development Commission NI written submission, Council for Nature Conservation and the Countryside NI written submission

[105] Appendix 2, Northern Ireland Local Government Association oral evidence (21 May 2009)

[106] Appendix 3, Council for Nature Conservation and the Countryside NI written submission, Northern Ireland Council for Voluntary Action written submission, Confederation of British Industry written submission, Northern Ireland Environment Link written submission, Conservation Volunteers NI written submission, Chartered Institute of Environmental Health written submission, Sustainable Development Commission NI written submission, Friends of the Earth written submission, World Wildlife Fund, Appendix 3, Ms Bairbre de Brún MEP written submission, CTS Projects Ltd written submission, Committee for Regional Development written submission, Institute of Highways and Transportation written submission

[107] Appendix 3, Institute of Highways and Transportation written submission, Department for Regional Development Committee written submission, Confederation of British Industry written submission, Ms Bairbre de Brún MEP written submission

[108] Appendix 3, British Wind Energy Association written submission, Appendix 2, Committee on Climate Change oral evidence (7 May 2009), Appendix 3, Ms Bairbre de Brún MEP written submission, Appendix 3, Sustainable Development Commission NI written submission, Appendix 2 CTS Projects Ltd oral evidence (21 May 2009), Appendix 2, Royal Town Planning Institute oral evidence (14 May 2009)

[109] Appendix 2, Committee on Climate Change oral evidence (7 May 2009)

[110] Appendix 3, British Wind Energy Association written evidence, Appendix 2, British Wind Energy Association oral evidence (14 May 2009)

[111] Appendix 3, Friends of the Earth written submission

[112] Appendix 2, British Wind Energy Association oral evidence (14 May 2009), Confederation of British Industry oral evidence (14 May 2009)

[113] Chapter 8 Paragraphs 166-167

[114] Appendix 2, Northern Ireland Local Government Association oral evidence (21 May 2009)

[115] Appendix 2, Chartered Institute of Environmental Health oral evidence (21 May 2009)

[116] Appendix 3, Chartered Institute of Environmental Health written submission

[117] Appendix 3, Queens University Belfast written submission, Confederation of British Industry written submission, British Wind Energy Association written submission, CTS Projects Ltd written submission, Appendix 5, Rural Climate Change Forum presentation

[118] Appendix 3, CTS Projects Ltd written submission

[119] Appendix 3, Queens University Belfast written submission, Confederation of British Industry written submission, Council for Nature Conservation and the Countryside NI written submission, Northern Ireland Environment Link written submission, Confederation of British Industry written submission, Sustainable Northern Ireland written submission

[120] Appendix 3, Ms Bairbre de Brún MEP written submission, Council for Nature Conservation and the Countryside NI written submission, Chartered Institute of Environmental Health written submission, CTS Projects Ltd written submission, Sustainable Development Commission NI written submission, Northern Ireland Council for Voluntary Action written submission

[121] Appendix 3, Energy Saving Trust written submission

[122] Appendix 3, Committee on Climate Change written submission

[123] Appendix 2, Committee on Climate Change oral evidence (7 May 2009)

[124] Northern Ireland Vision Study -
<http://www.carbontrust.co.uk/Publications/publicationdetail.htm?productid=CTC520>

[125] Appendix 3, Sustainable Development Commission NI written submission, Carbon Trust written submission

[126] Appendix 1, Minutes of Proceedings of the Committee Relating to the Report (7 May 2009)

[127] Appendix 3, Ulster Farmers' Union written submission

[128] Appendix 3, Confederation of British Industry written submission, British Wind Energy Association written submission, Royal Institute of Chartered Surveyors written submission

[129] Appendix 3, British Wind Energy Association written submission

[130] Appendix 3, Chartered Institute of Environmental Health written submission, Northern Ireland Climate Change Impact Partnership written submission, Northern Ireland Council for Voluntary Action written submission, Council for Nature Conservation and the Countryside NI written submission, Appendix 5, Irish Infrastructure Conference Report

[131] Appendix 3, Council for Nature Conservation and the Countryside NI written submission, Northern Ireland Environment Link written submission

[132] Appendix 3, Council for Nature Conservation and the Countryside NI written submission, Northern Ireland Environment Link written submission, Confederation of British Industry written submission

[133] Appendix 3, Energy Saving Trust written submission, Carbon Trust written submission, Council for Nature Conservation and the Countryside NI written submission, British Wind Energy Association written submission, CTS Projects Ltd written submission

[134] Appendix 5, Sustainable Development Commission information on a Green New Deal

[135] Appendix 2, Carbon Trust oral evidence (11 June 2009)

- [136] Appendix 2, Committee on Climate Change oral evidence (7 May 2009)
- [137] Appendix 3, Royal Institute of Chartered Surveyors written submission
- [138] Appendix 2, Confederation of British Industry oral evidence (14 May 2009)
- [139] Appendix 5, Chartered Institute of Environmental Health Report on Climate Change and Obesity
- [140] Appendix 2, Royal Institute of Chartered Surveyors oral evidence (14 May 2009)
- [141] Appendix 2, Chartered Institute of Environmental Health oral evidence (21 May 2009), Royal Institute of Chartered Surveyors oral evidence (14 May 2009)
- [142] Appendix 2, Sustainable Development Commission NI oral evidence (7 May 2009), Appendix 3, Sustainable Development Commission NI written submission
- [143] Appendix 2, Energy Saving Trust oral evidence (14 May 2009), Appendix 5, Chartered Institute of Environmental Health supplementary information
- [144] Appendix 2, Sustainable Development Commission NI oral evidence (7 May 2009), Ms Bairbre de Brún MEP oral evidence (11 June 2009), Appendix 3, Royal Institute of Chartered Surveyors written submission
- [145] Appendix 2, Sustainable Development Commission NI oral evidence (7 May 2009)
- [146] Appendix 2, Energy Saving Trust oral evidence (14 May 2009)
- [147] Appendix 2, Energy Saving Trust oral evidence (14 May 2009)
- [148] Appendix 3, Council for Nature Conservation and the Countryside written submission, Sustainable Development Commission NI written submission
- [149] Appendix 2, Royal Town Planning Institute oral evidence (14 May 2009)
- [150] Appendix 2, Confederation of British Industry oral evidence (14 May 2009)
- [151] Appendix 5, Chartered Institute of Environmental Health supplementary paper, Appendix 2, Carbon Trust written submission
- [152] Appendix 2, Northern Ireland Independent Retail Trade Association oral evidence (21 May 2009)
- [153] Appendix 3, Friends of the Earth written submission, Council for Nature Conservation and the Countryside written submission
- [154] Appendix 2, Carbon Trust oral evidence (11 June 2009)
- [155] Appendix 5, DFP reply to Committee query on Carbon Trust's funding

[156] Appendix 2, Royal Institute of Chartered Surveyors oral evidence (14 May 2009), Sustainable Development Commission NI oral evidence (7 May), Appendix 3, Carbon Trust written submission

[157] Appendix 2, Confederation of British Industry oral evidence (14 May 2009)

[158] Appendix 2, Confederation of British Industry oral evidence (14 May 2009)

[159] Appendix 2, Northern Ireland Council for Voluntary Action oral evidence (7 May 2009)

[160] Appendix 3, Federation of Small Businesses written submission

[161] Appendix 3, World Wildlife Fund NI written submission, British Wind Energy Association written submission, Airtricity written submission.

[162] Appendix 3, Ms Bairbre de Brún MEP written submission, Appendix 3, Ms Bairbre de Brún MEP oral evidence (11 June 2009), Northern Ireland Climate Change Impacts Partnership

[163] Appendix 2, Northern Ireland Independent Retail Trade Association oral evidence (21 May 2009)

[164] Appendix 2, CTS Projects Ltd oral evidence (21 May 2009)

[165] Appendix 3, British Wind Energy Association written submission, Appendix 3, British Wind Energy Association oral evidence (14 May 2009)

[166] Appendix 2, Ulster Farmers' Union oral evidence (21 May 2009)

[167] Appendix 2, Council for Nature Conservation and the Countryside oral evidence (28 May 2009)

[168] Appendix 2, Ulster Farmers' Union oral evidence (21 May 2009)

[169] Appendix 2, WWF Northern Ireland written submission

[170] Appendix 3, British Wind Energy Association written submission

[171] Appendix 2, Council for Nature Conservation and the Countryside oral evidence (28 May 2009)

[172] Appendix 2, British Wind Energy Association oral evidence (14 May 2009)

[173] Appendix 2, British Wind Energy Association oral evidence (14 May 2009), Appendix 3, Confederation of British Industry written submission

[174] Appendix 2, Council for Nature Conservation and the Countryside oral evidence (28 May 2009)

[175] Appendix 2, Confederation of British Industry oral evidence (14 May 2009)

[176] Appendix 2, Sustainable Development Commission oral evidence (7 May 2009)

[177] Appendix 3, Sustainable Development Commission written submission, Committee for Regional Development written submission, Institute of Highways and Transportation written submission

[178] Appendix 3, Institute of Highways and Transportation written submission, Appendix 2, Royal Institute of Chartered Surveyors oral evidence (7 May 2009)

[179] Appendix 2, Sustainable Development Commission oral evidence (7 May 2009)

[180] Appendix 3, Institute of Highways and Transportation written submission

[181] Appendix 2, Committee on Climate Change oral evidence (7 May 2009)

[182] Appendix 2, Confederation of British Industry oral evidence (14 May 2009)

[183] Appendix 2, Confederation of British Industry oral evidence (14 May 2009), , Sustainable Development Commission oral evidence (7 May 2009), Appendix 3, Ms Bairbre de Brún MEP written submission, Northern Ireland Independent Retail Trade Association written submission, Chartered Institute of Environmental Health written submission, Royal Institute of Chartered Surveyors written submission, Council for Nature Conservation and the Countryside written submission, Northern Ireland Climate Change Impacts Partnership written submission, Friends of the Earth written submission

[184] Appendix 2, Sustainable Development Commission oral evidence (7 May 2009), Appendix 3, Institute of Highways and Transportation written submission, Northern Ireland Climate Change Impacts Partnership written submission, Committee for Regional Development written submission

[185] Appendix 3, CTS Projects Ltd written submission

[186] Appendix 3, Energy Saving Trust written submission

[187] Appendix 2, Carbon Trust oral evidence (11 June 2009), Royal Institute of Chartered Surveyors, Appendix 3, Institute of Highways and Transportation written submission

[188] Appendix 2, Confederation of British Industry oral evidence (14 May 2009)

[189] Appendix 5, Note of meeting with Oireachtas Joint Committee on Climate Change and Energy Security, Joint Committee on Climate Change and Energy Security first report - <http://www.oireachtas.ie/ViewTxt.asp?DocId=-1&CatID=78>

[190] Appendix 3, Council for Nature Conservation and the Countryside NI written submission, CTS Projects Ltd written submission, Confederation of British Industry written submission, Energy Saving Trust written submission, Institute of Highways and Transportation written submission, Climate Change Coalition NI written submission

[191] Chapter 8 Paragraph 158

[192] Appendix 2, Institute of Highways and Transportation oral evidence (14 May 2009)

[193] Appendix 2, Ulster Farmers' Union oral evidence (21 May 2009)

[194] Appendix 3, Ms Bairbre de Brún MEP written submission

- [195] Appendix 2, Chartered Institute of Environmental Health oral evidence (21 May 2009)
- [196] Appendix 2, Northern Ireland Local Government Association oral evidence (21 May 2009)
- [197] Appendix 3, Energy Saving Trust written submission, CTS Projects Ltd written submission, Council for Nature Conservation and the Countryside NI written submission
- [198] Appendix 3, Energy Saving Trust written submission
- [199] Appendix 3, Arc21 written submission
- [200] Appendix 2, Sustainable Development Commission NI oral evidence (7 May 2009)
- [201] Appendix 2, Department of the Environment oral evidence (7 May 2009)
- [202] Appendix 2, Ulster Farmers' Union oral evidence (21 May 2009), Sustainable Development Commission NI oral evidence (7 May 2009)
- [203] Appendix 2, Committee on Climate Change oral evidence (7 May 2009), Confederation of British Industry oral evidence (14 May 2009), Sustainable Development Commission NI oral evidence (7 May 2009)
- [204] Appendix 2, Department of the Environment oral evidence (7 May 2009)
- [205] Appendix 2, Ulster Farmers' Union oral evidence (21 May 2009)
- [206] Appendix 2, Ulster Farmers' Union oral evidence (21 May 2009), Appendix 3, Ms Bairbre de Brún MEP written submission, Confederation of British Industry written submission, Appendix 5, Rural Climate Change Forum presentation
- [207] Appendix 2, Royal Society for the Protection of Birds oral evidence (21 May 2009), Appendix 3, Council for Nature Conservation and the Countryside NI written submission
- [208] Appendix 2, Ms Bairbre de Brún oral evidence (11 June 2009)
- [209] Appendix 3, Confederation of British Industry written submission
- [210] Appendix 3, Chartered Institute of Environmental Health written submission, Institute of Highways and Transportation written submission, Northern Ireland Environment Link written submission
- [211] Appendix 3, Royal Institute of Chartered Surveyors written submission
- [212] Appendix 5, Note of Committee visit to Agri Food and Biosciences Institute Hillsborough
- [213] Appendix 3, Ulster Farmers' Union written submission
- [214] Appendix 3, Ulster Farmers' Union written submission, Appendix 5, Rural Climate Change Forum presentation
- [215] Appendix 3, CTS Projects Ltd written submission, Northern Ireland Independent Retail Trade Association written submission

[216] Appendix 2, Ulster Farmers' Union oral evidence (21 May 2009), Appendix 5, Rural Climate Change Forum presentation

[217] Appendix 5, Rural Climate Change Forum presentation

[218] Appendix 2, Committee on Climate Change oral evidence (7 May 2009), Appendix 5, Rural Climate Change Forum presentation

[219] Appendix 5, Rural Climate Change Forum presentation, Appendix 2, Ulster Farmers' Union oral evidence (21 May 2009), Appendix 3, Ulster Farmers' Union written submission

[220] Appendix 3, Ulster Farmers' Union written submission

[221] Appendix 5, Rural Climate Change Forum presentation

[222] Appendix 2, Ulster Farmers' Union oral evidence (21 May 2009), Appendix 3, Ulster Farmers' Union written submission, Appendix 5, Rural Climate Change Forum presentation

[223] Appendix 3, Woodland Trust written submission

[224] Appendix 3, Royal Society for the Protection of Birds written submission, Appendix 2, Council for Nature Conservation and the Countryside oral evidence (28 May 2009), Appendix 2, Ms Bairbre de Brún oral evidence (11 June 2009)

[225] Appendix 2, Council for Nature Conservation and the Countryside oral evidence (28 May 2009)

[226] Appendix 2, Council for Nature Conservation and the Countryside oral evidence (28 May 2009), Appendix 3, Conservation Volunteers NI written submission, Council for Nature Conservation and the Countryside written submission

[227] Appendix 2, Northern Ireland Council for Voluntary Action oral evidence (7 May 2009), Council for Nature Conservation and the Countryside oral evidence (28 May 2009), Appendix 3 Conservation Volunteers NI written submission

[228] Appendix 3 Council for Nature Conservation and the Countryside written submission

[229] Appendix 3, Council for Nature Conservation and the Countryside written submission, Royal Society for the Protection of Birds written submission, National Trust written submission

[230] Appendix 3, Council for Nature Conservation and the Countryside written submission, Royal Society for the Protection of Birds written submission, National Trust written submission

[231] Appendix 3, Royal Society for the Protection of Birds written submission

[232] Appendix 3, Council for Nature Conservation and the Countryside written submission

[233] Appendix 3, Northern Ireland Council for Voluntary Action written submission, Council for Nature Conservation and the Countryside written submission, Chartered Institute of Environmental Health written submission, Council for Nature Conservation and the Countryside written submission, Friends of the Earth Council for Nature Conservation and the Countryside written submission, World Wildlife Fund NI, Council for Nature Conservation and the Countryside written submission, Northern Ireland Environment Link written submission

[234] Appendix 3, Conservation Volunteers NI written submission, Northern Ireland Climate Change Impacts Partnership written submission, Council for Nature Conservation and the Countryside written submission, Chartered Institute of Environmental Health written submission, Northern Ireland Environment Link written submission

[235] Chapter 8 Paragraph 205

[236] Appendix 3, Northern Ireland Climate Change Impacts Partnership written submission, Appendix 3, Irish Academy of Engineering written submission

[237] Appendix 3, Royal Town Planning Institute written submission

[238] Appendix 3, Royal Town Planning Institute written submission, Royal Institute of Chartered Surveyors written submission, Council for Nature Conservation and the Countryside NI written submission

[239] Appendix 3, National Trust written submission

[240] Appendix 3, Northern Ireland Council for Voluntary Action written submission, Appendix 2, Northern Ireland Council for Voluntary Action oral evidence (7 May 2009), Council for Nature Conservation and the Countryside oral evidence (28 May 2009), Appendix 3, Northern Ireland Climate Change Impacts Partnership written submission, Queens University Belfast written submission, Northern Ireland Local Government Association written submission

[241] Chapter 8 Paragraphs 185-196

[242] Chapter 8 Paragraphs 166-168

[243] Appendix 2, Northern Ireland Council for Voluntary Action oral evidence (7 May 2009)

[244] Chapter 5 Paragraph 59

[245] Appendix 5, Climate Change Unit reply to Committee queries

[246] Ref www.scotland.gov.uk/Publications/2009/04/23145206/2

[247] Ref http://wales.gov.uk/topics/environmentcountryside/climate_change/news/greenchristmas/?lang=en

[248] Appendix 2, Council for Nature Conservation and the Countryside NI oral evidence (28 May 2009), Northern Ireland Local Government Association oral evidence (21 May 2009)

[249] Appendix 2, Northern Ireland Local Government Association oral evidence (21 May 2009), Chartered Institute of Environmental Health oral evidence (21 May 2009)

[250] Appendix 3, Council for Nature Conservation and the Countryside NI written submission, Northern Ireland Environment Link written submission

[251] Appendix 5, Climate Change Unit reply to Committee queries

[252] Chapter 5 Paragraph 57-61

[253] Appendix 3, Council for Nature Conservation and the Countryside NI written submission, Sustainable Development Commission NI written submission, Northern Ireland Environment Link written submission, Sustainable Northern Ireland written submission, Northern Ireland Council for Voluntary Action written submission

[254] Appendix 3, Council for Nature Conservation and the Countryside NI written submission, Sustainable Development Commission NI written submission, Confederation of British Industry written submission

[255] Appendix 3, Council for Nature Conservation and the Countryside NI written submission, Sustainable Development Commission NI written submission, Confederation of British Industry written submission, Northern Ireland Environment Link written submission, Northern Ireland Local Government Association written submission

[256] Appendix 3, Confederation of British Industry written submission

[257] Appendix 3, Energy Saving Trust written submission, Northern Ireland Environment Link written submission

[258] Appendix 3, Chartered Institute of Environmental Health oral evidence (21 May 2009), Appendix 3, Chartered Institute of Environmental Health written submission

[259] Appendix 3, Helena Rafferty Baglady Productions written submission, Council for Nature Conservation and the Countryside NI written submission, Northern Ireland Environment Link written submission, Sustainable Northern Ireland written submission, Friends of the Earth written submission

[260] Appendix 3, Northern Ireland Local Government Association written evidence, Appendix 3, Northern Ireland Local Government Association oral evidence (21 May 2009), Sustainable Northern Ireland written submission

[261] Appendix 3, Sustainable Development Commission NI written submission

[262] Appendix 3, Sustainable Development Commission NI written submission, Energy Saving Trust written submission, Carbon Trust written submission, Confederation of British Industry written submission

[263] Appendix 3, Confederation of British Industry written submission, Northern Ireland Environment Link written submission, Sustainable Northern Ireland written submission, Conservation Volunteers NI written submission

[264] Appendix 3, Northern Ireland Council for Voluntary Action written submission, Federation of Small Businesses written submission, Confederation of British Industry written submission, British Wind Energy Association written submission.

[265] Appendix 2, Sustainable Development Commission NI oral evidence (7 May 2009), Northern Ireland Council for Voluntary Action oral evidence (7 May 2009), Council for Nature Conservation and the Countryside oral evidence (28 May 2009), Appendix 3, Sustainable Development Commission written submission, Northern Ireland Council for Voluntary Action written submission, Council for Nature Conservation and the Countryside written submission, Northern Ireland Climate Change Impacts Partnership written submission, Queens University Belfast written submission, National Trust written submission, Friends of the Earth written submission, Northern Ireland Environment Link written submission

[266] <http://www.sd-commission.org.uk/pages/redefining-prosperity.html>

[267] Appendix 5, Sustainable Development Commission supplementary paper, Green New Deal for NI

[268] <http://www.sd-commission.org.uk/pages/redefining-prosperity.html>

[269] Chapter 6 Paragraphs 73-79

[270] Appendix 1, Minutes of Proceedings of the Committee Relating to the Report (7 May 2009)

[271] Appendix 2, Council for Nature Conservation and the Countryside NI oral evidence (28 May 2009), Ms Bairbre de Brún MEP oral evidence (11 June 2009)

Minutes of Proceedings

Thursday 15 January 2009, Room 144, Parliament Buildings

Present: Mr Patsy McGlone (Chairperson)

Mr Roy Beggs

Mr Cathal Boylan

Mr Trevor Clarke

Mr David Ford

Mr Tommy Gallagher

Mr Ian McCrea

Mr Alastair Ross

Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)

Mr William Long (Assistant Clerk)

Mr John Devlin (Assistant Clerk)

Mr Jonathan Young (Clerical Officer)

Apologies: Mr David McClarty

3. Matters Arising

Members discussed arrangements for the Committee's inquiry into climate change.

Agreed: The public notice to be issued week commencing 19 January with a four week consultation period. Members also agreed to the issue of a press release on the inquiry and to place a public notice on the Committee website. Members were invited to provide further names for inclusion on the 'stakeholder' list.

Patsy McGlone

Chairperson, Committee for the Environment

22 January 2009

[EXTRACT]

**Thursday 22 January 2009,
Room 144, Parliament Buildings**

Present: Mr Patsy McGlone (Chairperson)

Mr Roy Beggs
Mr Cathal Boylan
Mr Trevor Clarke
Mr David Ford
Mr Tommy Gallagher
Mr David McClarty
Mr Ian McCrea
Mr Daithi McKay
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)

Mr William Long (Assistant Clerk)
Mr John Devlin (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)

Apologies:

3. Matters Arising

Profiles of Specialist Advisers for Climate Change Inquiry:

The Chairperson advised members that Research and Library Services had identified 8 possible special advisers to assist with the Committee's Inquiry into climate change.

Agreed: That more information on fees and availability is sought and brought back for members' consideration at the meeting on 29 January.

Patsy McGlone
Chairperson, Committee for the Environment
29 January 2009

[EXTRACT]

**Thursday 29 January 2009,
Senate Chamber, Parliament Buildings**

Present: Mr Patsy McGlone (Chairperson)

Mr Roy Beggs
Mr Cathal Boylan
Mr Trevor Clarke
Mr David Ford
Mr Tommy Gallagher
Mr David McClarty
Mr Ian McCrea
Mr Daithi McKay

Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Richard Keating (Clerical Supervisor)

Apologies:

3. Matters Arising

Climate Change Inquiry – Special Advisor Criteria:

The Chairperson informed members that they had been provided with updated details on the fees and expenses in relation to the list of potential special advisors for information.

Agreed: That the Terms of Reference for the Special Advisor post be considered at next week's meeting.

Patsy McGlone
Chairperson, Committee for the Environment
5 February 2009

[EXTRACT]

Thursday 5 February 2009, Room144, Parliament Buildings

Present: Mr Patsy McGlone (Chairperson)
Mr Roy Beggs
Mr Cathal Boylan
Mr Trevor Clarke
Mr David Ford
Mr Tommy Gallagher
Mr David McClarty
Mr Ian McCrea
Mr Daithi McKay
Mr Alastair Ross

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealy (Clerical Officer)

Apologies: Mr Peter Weir

6. Committee Climate Change Inquiry

The Chairperson informed members that Committee staff are still working with procurement division to prepare the terms of reference and selection criteria for selecting a specialist adviser

to help the Committee with the Inquiry. Details should be available for members' consideration at the meeting on 12 February.

Agreed: That the Committee accepts a late submission from QUB but that QUB are encouraged to make a submission as quickly as possible after the deadline.

Agreed: That further details of QUB's proposed workshop on climate change are sought and provided for members at the meeting on 12 February.

Patsy McGlone
Chairperson, Committee for the Environment
12 February 2009

[EXTRACT]

Thursday 12 February 2009, Room144, Parliament Buildings

Present: Mr Patsy McGlone (Chairperson)
Mr Roy Beggs
Mr Cathal Boylan
Mr Trevor Clarke
Mr David Ford
Mr Tommy Gallagher
Mr David McClarty
Mr Ian McCrea
Mr Daithi McKay
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealy (Clerical Officer)

Apologies:

5. Committee Climate Change Inquiry

The Chairperson informed members that they had been provided with a copy of an e-mail from John Barry, School of Politics, International Studies and Philosophy, QUB providing details of the proposed 'workshop' on topics falling within the Inquiry's terms of reference for consideration.

Agreed: That the Committee decline the offer of a workshop.

The Chairperson further informed members that applications will be invited from a list of potential advisers provided to the Committee by Assembly Research and Library. Applications received will be put in front of the Committee (or Committee sub-group) in due course for members to select the most appropriate adviser.

Agreed: That a sub-group is formed to decide on the appointment of a specialist adviser.

Patsy McGlone
Chairperson, Committee for the Environment
19 February 2009

[EXTRACT]

**Thursday 19 February 2009,
Conference Room, The Grange,
Castlewellan Forest Park**

Present: Mr Roy Beggs
Mr Cathal Boylan
Mr Trevor Clarke
Mr David Ford
Mr Ian McCrea

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealy (Clerical Officer)

Apologies: Mr Patsy McGlone (Chairperson)
Mr Tommy Gallagher
Mr Daithi McKay
Mr Alastair Ross
Mr Peter Weir

7. Committee Climate Change Inquiry

The Chairperson informed members that they had been provided with copies of 4 submissions for the Committee Climate Change Inquiry. Members noted the submissions.

Patsy McGlone
Chairperson, Committee for the Environment
26 February 2009

[EXTRACT]

**Thursday 26 February 2009,
Senate Chamber, Parliament Buildings**

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr Trevor Clarke
Mr David Ford
Mr David McClarty
Mr Ian McCrea
Mr Daithi McKay
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealy (Clerical Officer)

Apologies: Mr Patsy McGlone (Chairperson)
Mr Tommy Gallagher

6. Climate Change Inquiry

The Deputy Chairperson informed members that the sub-group to consider applications from potential Specialist Advisers will be asked to meet on Wednesday 18 March with a view to bringing their decision to the full Committee on Thursday 19 March.

Agreed: That the meeting takes place on Wednesday 18 March.

Patsy McGlone
Chairperson, Committee for the Environment
5 March 2009

[EXTRACT]

Thursday 5 March 2009, Room 144, Parliament Buildings

Present: Mr Patsy McGlone (Chairperson)
Mr Roy Beggs
Mr Trevor Clarke
Mr David Ford
Mr Tommy Gallagher
Mr David McClarty
Mr Ian McCrea
Mr Daithi McKay
Mr Alastair Ross

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealy (Clerical Officer)

Apologies: Mr Cathal Boylan (Deputy Chairperson)
Mr Peter Weir

6. Climate Change Inquiry

The Chairperson informed members that they had been provided with an updated table containing details of the submissions received to date along with names of individuals/organisations who have indicated an intention to submit a response but have not yet done so.

The Chairperson further informed members that application forms for the post of Specialist Adviser have been issued to 12 individuals as identified by Research Service and 1 individual who has requested an application form.

The closing date for submitting an application for the Specialist Adviser post is 16 March 2009 and the sub-group to consider applications will meet on 18 March 2009 at 9.30 a.m.

Patsy McGlone
Chairperson, Committee for the Environment
12 March 2009

[EXTRACT]

Thursday 12 March 2009, Armagh City Council Offices

Present: Mr Patsy McGlone (Chairperson)
Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr Ian McCrea
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
r William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)

Apologies: Mr Trevor Clarke
Mr David Ford
Mr Tommy Gallagher
Mr David McClarty
Mr Daithi McKay
Mr Alastair Ross

6. Climate Change Inquiry

The Chairperson informed members that the closing date for submitting an application for the Specialist Adviser post is 16 March 2009 and the sub-group to consider applications will meet on 18 March 2009.

Patsy McGlone
Chairperson, Committee for the Environment
19 March 2009

[EXTRACT]

Thursday 19 March 2009, Room 144, Parliament Buildings

Present: Mr Patsy McGlone (Chairperson)
Mr Roy Beggs

Mr Cathal Boylan (Deputy Chairperson)
Mr Trevor Clarke
Mr Tommy Gallagher
Mr David McClarty
Mr Ian McCrea
Mr Daithi McKay
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr David Ford

6. Climate Change Inquiry

The Chairperson advised members that the sub-committee met on 18 March 2009 to consider the applications received for the post of Specialist Adviser. He further advised members that they had been provided with a full evaluation report from the sub-group and that it was the sub-committee's recommendation that Professor Sue Christie is awarded the contract.

Agreed: That Sue Christie is awarded the specialist adviser contract for the Committee Climate Change Inquiry.

Patsy McGlone
Chairperson, Committee for the Environment
26 March 2009

[EXTRACT]

Thursday 26 March 2009, Room 144, Parliament Buildings

Present: Mr Patsy McGlone (Chairperson)
Mr Roy Beggs
Mr David Ford
Mr Tommy Gallagher
Mr Ian McCrea
Mr Peter Weir

In Attendance: Mr Damien Martin (Clerk Assistant)
Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr Cathal Boylan (Deputy Chairperson)
Mr Trevor Clarke
Mr David McClarty

Mr Daithi McKay
Mr Alastair Ross

7. Committee Inquiry into Climate Change

The Chairperson informed members that the Committee Clerk met with Professor Sue Christie, the recently appointed Specialist Adviser, on Wednesday 25 March 2009 to discuss a programme of work on the Inquiry.

Mr Weir noted that there were discrepancies in the scoring matrixes provided to the Committee.

Agreed: That the scoring matrixes are corrected.

Agreed: That Assembly Research prepare a paper on the likely impacts of climate change over the next 10, 20, 50 years in Northern Ireland on key groups and sectors such as agriculture, business and the vulnerable. Impacts should include direct and indirect financial, social and environmental effects. The paper should also identify current policy frameworks being taken across all Departments in Northern Ireland to mitigate and adapt to climate change

Agreed: That no further submissions are accepted after Friday 3 April.

Agreed: That a letter is sent to the DOE Permanent Secretary reminding him of the deadline for climate change inquiry submissions.

Patsy McGlone
Chairperson, Committee for the Environment
2 April 2009

[EXTRACT]

Thursday 2 April 2009, Room 144, Parliament Buildings

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr David Ford
Mr Tommy Gallagher
Mr David McClarty
Mr Ian McCrea
Mr Patsy McGlone (Chairperson)
Mr Daithi McKay
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr Trevor Clarke

6. Committee inquiry into Climate Change

The Deputy Chairperson informed members that the Department had forwarded a response to the Committee in relation to the climate Change Inquiry.

Members were informed that a total of 39 responses have been received to date.

Agreed: That Departmental officials are invited to a future meeting to brief the Committee on their climate change inquiry submission.

Patsy McGlone
Chairperson, Committee for the Environment
23 April 2009

[EXTRACT]

Thursday 23 April 2009, Room 144, Parliament Buildings

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr Trevor Clarke
Mr David Ford
Mr Tommy Gallagher
Mr Ian McCrea
Mr Patsy McGlone (Chairperson)
Mr Daithi McKay
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr David McClarty

7. Committee Inquiry into Climate Change

The Chairperson informed members that they had been e-mailed copies of the 'summary of the written submissions' documents and had also been provided with an updated list of responses. A total of 42 responses have been received.

The Committee's Specialist Adviser, Professor Sue Christie, will attend the Committee meeting on 30 April 2009 to make recommendations to members on who should provide oral evidence and suggest possible visits in relation to the Inquiry.

Members also noted that it is anticipated that oral evidence sessions will commence on 7 May 2009 and further details should be available at the meeting on 30 April.

Patsy McGlone
Chairperson, Committee for the Environment
30 April 2009

[EXTRACT]

Thursday 30 April 2009, Room 144, Parliament Buildings

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr David Ford
Mr Tommy Gallagher
Mr Ian McCrea
Mr Patsy McGlone (Chairperson)
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr Trevor Clarke
Mr David McClarty

8. Committee inquiry into Climate Change

The Chairperson informed members that they had been provided with a climate change inquiry master file containing all 42 written submissions.

The Chairperson introduced the specialist adviser, Professor Sue Christie, who made suggestions on the individuals/organisations she believed would benefit the Committee by providing oral evidence.

Professor Christie also made suggestions for possible visits that would help inform the Committee during the inquiry.

Mr McGlone left the meeting at 12.56 and Mr Boylan assumed the Chair.

The Committee deliberated over the issue of Bairbre de Brún MEP being called to give oral evidence to the climate change inquiry.

Mr McGlone rejoined the meeting at 1.00p.m and resumed the Chair.

Mr Weir proposed that it would be inappropriate to invite Ms de Brún to give oral evidence to the Committee as all political parties already had a representative voice on the Committee. Mr McCrea seconded the proposal.

The Specialist Adviser informed the Committee that she proposed to invite Ms de Brún as her submission was from a uniquely European perspective.

The Committee divided:

AYES NOES

Mr Weir Mr Boylan
Mr McCrea Mr McGlone
Mr Beggs
Mr Ford

The motion therefore fell.

Mr Beggs proposed that Ms de Brún is invited to give evidence to the Committee after the European Election on 4 June 2009.

Agreed: That Ms de Brún is invited to give oral evidence to the Committee at the meeting on 11 June, after the European Election.

Agreed: That any other suggestions regarding possible Committee visits in relation to the climate change inquiry are forwarded to Committee staff.

Mr Ford left the meeting at 1.13p.m.

Patsy McGlone
Chairperson, Committee for the Environment
7 May 2009

Thursday 7 May 2009, Senate Chamber, Parliament Buildings

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr Trevor Clarke
Mr David Ford
Mr David McClarty
Mr Ian McCrea
Mr Patsy McGlone (Chairperson)

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr Tommy Gallagher
Mr Daithi McKay
Mr Alastair Ross
Mr Peter Weir

4. Climate Change Inquiry – Oral Evidence from Committee on Climate Change (CCC)

Agreed: That all submissions to the Inquiry are published on the Assembly website.

Representatives from the Committee on Climate Change briefed the Committee and answered members' questions on climate change.

Mr Beggs left the meeting at 11.05a.m.

The main areas of discussion were increased oil and gas costs, energy efficiency in buildings, renewables, the implementation of planning policies, the level of contact the CCC has with the devolved administrations and power generation including the nuclear option.

5. Climate Change Inquiry – Oral Evidence from Sustainable Development Commission

Representatives from the Sustainable Development Commission briefed the Committee and answered members' questions on climate change.

The main areas of discussion were public transport, departmental policy, decentralisation of public sector jobs, energy efficiency in government buildings, comparisons between Northern Ireland and the other devolved UK administrations, the concept of a 'green new deal' and the finance required for any climate change measures being introduced.

Agreed: That a letter is sent to all government departments asking for an update on the work they are doing to ensure Programme for Government targets are met.

6. Climate Change Inquiry – Oral Evidence from Met Office

Representatives from the Met Office briefed the Committee and answered members' questions on climate change.

The main areas of discussion were cyclical increases in temperature and the accuracy of Met Office forecasts.

The Chairperson suspended the meeting at 12.31p.m.

The meeting resumed at 12.46p.m. with the following members present – Mr McGlone, Mr Boylan, Mr Clarke, Mr Ford, Mr McCrea, MrMcClarty.

7. Climate Change Inquiry – Oral Evidence from Northern Ireland Council for Voluntary Action (NICVA)

A Representative from NICVA briefed the Committee and answered members' questions on climate change.

The Chairperson suspended the meeting at 1.20p.m. and informed members that, due to time constraints, the meeting would move to Room 144.

The meeting resumed at 1.25p.m. with the following members present – Mr McGlone, Mr Boylan, Mr Clarke, Mr Ford, Mr McCrea.

8. Climate Change Inquiry – Oral Evidence from the Department of the Environment (DOE)

DOE officials briefed the Committee and answered members' questions on climate change.

Mr Clarke left the meeting at 1.45p.m.

The main areas of discussion were economic growth and departmental policies, DOE Climate Change Unit initiatives and co-operation with other government departments, renewables, responsibility for PSA targets and co-operation with the Committee on Climate Change in developing Northern Ireland sectoral targets.

Patsy McGlone
Chairperson, Committee for the Environment
14 May 2009

[EXTRACT]

Thursday 14 May 2009, Senate Chamber, Parliament Buildings

Present: Mr Cathal Boylan (Deputy Chairperson)
Mr David Ford
Mr Tommy Gallagher
Mr David McClarty
Mr Ian McCrea
Mr Daithi McKay
Mr Patsy McGlone (Chairperson)
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr Roy Beggs
Mr Trevor Clarke

8. Inquiry into Climate Change update

The Chairperson informed members that the Committee had received a letter from Glyn Roberts, Chief Executive - Northern Ireland Independent Retail Trade Association (NIIRTA) requesting the opportunity to provide oral evidence at the Committee's Inquiry into Climate Change.

Agreed: That NIIRTA representatives are invited to brief the Committee at the meeting on 21 May.

Agreed: That letters are sent to those organisations not called to give oral evidence outlining the rationale behind the decision.

The Chairperson informed members that they had also been provided with a copy of a submission from The Carbon Trust to the Committee's Inquiry into Climate Change. Geoff Smyth, Manager of the Carbon Trust in Northern Ireland has indicated that this submission was forwarded to the Committee's public e-mail folder on 20 February 2009. This submission never

reached the Committee's public-mail folder, probably due to faults with the Assembly's e-mailing system in February.

Agreed: That Carbon Trust representatives are invited to brief the Committee at a future meeting.

The Chairperson informed members that Kevin Taylor had contacted the Committee to request that it withdraws all the documentation he forwarded in respect of the Inquiry following a telephone conversation with the Committee Clerk on 5 May 2009.

Mr McKay joined the meeting at 11.28a.m.

Agreed: That Mr Taylor's submission is withdrawn and all documentation returned to him.

The Chairperson reminded members that the Committee had requested two items of research in relation to its Inquiry and that they had been provided with a research paper entitled 'Likely impacts of climate change in Northern Ireland' for information. A further research paper on 'current policy frameworks being taken across all Departments in Northern Ireland to mitigate and adapt to climate change' will also be provided in due course.

Agreed: That these Research papers are published on the Assembly website.

9. Climate Change Inquiry - Oral Evidence from Confederation of British Industry (CBI)

Representatives from the CBI briefed the Committee and answered members' questions on climate change. The main areas of discussion were decentralisation of public sector jobs, transportation, opportunities for businesses through a low carbon future, climate change targets, renewables, a carbon neutral government estate and incentives for the private sector.

Mr Gallagher left the meeting at 11.50a.m.

Agreed: That CBI provides the Committee with details of their forthcoming seminar on climate change.

Mr Weir left the meeting at 12.03p.m.

Mr McClarty left the meeting at 12.03p.m.

10. Climate Change Inquiry – Oral Evidence from Energy Saving Trust NI

Representatives from the Energy Saving Trust NI briefed the Committee and answered members' questions on climate change.

The main areas of discussion were incentives for individuals, the link between energy efficiency and climate change and housing policy.

Agreed: That the Energy Saving Trust provides the Committee with

11. Climate Change Inquiry - Oral Evidence from British Wind Energy Association (BWEA)/Irish Wind Energy Association (IWEA)

Representatives from BWEA/IWEA briefed the Committee and answered members' questions on climate change.

Mr Gallagher left the meeting at 1.02pm.

The main areas of discussion were PPS18, working with communities, working relationships with DOE, Republic of Ireland policy on wind energy and targets.

The Chairperson suspended the meeting at 1.10p.m. for lunch.

The meeting resumed at 1.55p.m with the following members present: Mr McGlone, Mr Boylan, Mr Ford, Mr McCrea, Mr Ross.

12. Climate Change Inquiry - Oral Evidence from Institute of Highways and Transportation (IHT)

Representatives from the IHT briefed the Committee and answered members' questions on climate change.

The main areas of discussion were the road transport strategy, road charging schemes, parking levies, public transport, broadband and working from home.

Agreed: That IHT provides the Committee with further information on the fuel efficiency of Translink's new fleet of buses.

13. Climate Change Inquiry - Oral Evidence from Royal Institute of Chartered Surveyors (RICS)

Representatives from the RICS briefed the Committee and answered members' questions on climate change.

The main areas of discussion were building regulations, incentives, funding, building stock and the possibility of transporting freight by rail.

Agreed: That RICS provides the Committee with their paper on inter governmental working.

14. Climate Change Inquiry – Oral Evidence from Royal Town Planning Institute (RTPI)

Representatives from the RTPI briefed the Committee and answered members' questions on climate change.

The main areas of discussion were spatial approach and planners' expertise on climate changes.

Patsy McGlone
Chairperson, Committee for the Environment
21 May 2009

[EXTRACT]

Thursday 21 May 2009, Room 144, Parliament Buildings

Present: Mr Cathal Boylan (Deputy Chairperson)
Mr Roy Beggs
Mr David Ford
Mr Tommy Gallagher
Mr David McClarty
Mr Daithi McKay
Mr Patsy McGlone (Chairperson)
Mr Alastair Ross

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr Trevor Clarke
Mr Ian McCrea
Mr Peter Weir

8. Inquiry into Climate Change update

The Chairperson informed members that the Committee had received a letter from Paddy Purcell, Chairman, Standing Committee on Climate Change, Irish Academy of Engineers, seeking the opportunity to input into the Committee Inquiry into Climate Change.

Members had been provided with a copy of four papers presented by the Academy at a recent climate change workshop in Dublin for information.

Agreed: That the information from the Irish Academy of Engineers is accepted as a submission to the Climate Change Inquiry.

The Chairperson informed members that it was now proposed to visit other UK and ROI administrations to discuss the work they are doing to tackle climate change.

Agreed: That a scoping exercise is carried out to determine the best way to conduct any visit.

Agreed: That the Committee visit the Climate Change Unit in the DOE to discuss their work.

The Chairperson informed members that they had been provided with a copy of an Assembly Research Paper entitled 'Climate Change Policy Framework in NI' for information.

The Chairperson informed members that they had been provided with further information by Research & Library Services on the proposed Climate Change Inquiry visit for consideration. A member of Assembly Research briefed the Committee on these papers.

Agreed: That the Research papers are published on the Assembly website.

Agreed: That a Research paper is requested on the work being carried out by other UK and ROI administrations to tackle climate change and on the effectiveness of Public Service Agreements in the Programme for Government

The Chairperson informed members that they had been provided with a copy of an e-mail from the Specialist Adviser regarding the submission from the Carbon Trust.

Agreed: That the Carbon Trust are invited to give oral evidence to the Climate Change Inquiry.

9. Climate Change Inquiry - Oral Evidence from Chartered Institute of Environmental Health (CIEH)

Representatives from the CIEH briefed the Committee and answered members' questions on climate change.

Mr Gallagher left the meeting at 11.50a.m.

The main areas of discussion were policy targets, primary legislation, public health and food poisoning, sustainable development, obesity and climate change and community initiatives to tackle climate change.

Mr McKay joined the meeting at 11.57a.m.

Agreed: That a letter is sent to OFMDFM asking for further information on the Sustainable Development Strategy.

Agreed: That CIEH provides the Committee with information on the cost of upgrading existing housing stock, projects documenting complementarity and research for the link between obesity and climate change.

Agreed: That Committee staff obtain copies of the Office of Deputy Prime Minister Stocktake Report and the Draft Flood and Water Management Bill.

10. Climate Change Inquiry - Oral Evidence from NILGA

Mr Gallagher rejoined the meeting at 12.10p.m.

Mr Ross left the meeting at 12.15p.m.

The following members declared an interest as local councillors:

Patsy McGlone – Cookstown District Council

Roy Beggs – Carrickfergus District Council

David Ford – Antrim Borough Council

David McClarty – Coleraine Borough Council

Representatives from NILGA briefed the Committee and answered members' questions on climate change.

The main areas of discussion were a ministerial climate change champion, the need for legislation, the waste management strategy.

Mr McGlone left the meeting at 12.31p.m and Mr Boylan assumed the Chair.

Agreed: That NILGA forwards to the Committee a copy of the declaration on climate change along with a copy of evidence given to RECP and details of the work they are doing with the Welsh Assembly.

Mr Ross rejoined the meeting at 12.37p.m.

11. Climate Change Inquiry – Oral Evidence from Ulster Farmers’ Union (UFU)

Mr McGlone rejoined the meeting at 12.46p.m. and resumed the Chair.

Mr McClarty left the meeting at 12.46p.m.

Representatives from the UFU briefed the Committee and answered members’ questions on climate change.

The main areas of discussion were climate change research, renewable energy, the single electricity market, diversification, land use, threats and opportunities from climate change, farming methods, carbon labelling and the rural economy.

Mr Boylan left the meeting at 1.15p.m.

Mr Gallagher left the meeting at 1.20p.m.

Agreed: That the Committee visits the Agri-Food and Biosciences Institute to discuss research into climate change.

12. Climate Change Inquiry - Oral Evidence from NI Climate Change Impacts Partnership (NICCIP)

Mr Boylan rejoined the meeting at 1.31p.m.

Representatives from NICCIP briefed the Committee and answered members’ questions on climate change.

The main areas of discussion were the Draft Flood and Water Management Bill, climate change policy, the new green deal, funding and the differences in policies between Northern Ireland and the Republic of Ireland.

Agreed: That Committee staff obtain a copy of the I.C.E. report on defending public infrastructure.

The Chairperson suspended the meeting at 1.55p.m for lunch.

The meeting restarted at 2.25p.m, with the following members present: Mr McGlone, Mr Beggs, Mr Boylan, Mr Ross.

13. Climate Change Inquiry – Oral Evidence from the Royal Society for the Protection of Birds (RSPB)

Representatives from the RSPB briefed the Committee and answered members' questions on climate change.

The main areas of discussion were the effects of changes in agriculture on bird habitats, changes in the insect population and diseases in Northern Ireland waters.

Agreed: That RSPB provides the Committee with further information in relation to diseases in Northern Ireland waters and changes in sea temperatures.

14. Climate Change Inquiry – Oral Evidence from the Northern Ireland Independent Retail Trade Association (NIIRTA)

Representatives from NIIRTA briefed the Committee and answered members' questions on climate change.

The main areas of discussion were parking levies, plastic bag taxes, town centre regeneration, incentives for retailers to adopt a low carbon position and PPS5.

15. Climate Change Inquiry – Oral Evidence from CTS Projects Ltd

Representatives from CTS Projects Ltd briefed the Committee and answered members' questions on climate change.

The main areas of discussion were the Warm Homes Scheme, building regulations, grants and wood chip boilers.

Agreed: That CTS Projects forwards the Committee information on their recent trip to Sweden along with a copy of the graph they used in their presentation.

Agreed: That a letter is sent to the DSD requesting information on social housing standards and the differences with private builds and the standards and grants for the Warm Homes Schemes applied by the Housing Executive.

16. Climate Change Inquiry - Oral Evidence from Hans Schreuder

Hans Schreuder briefed the Committee and answered members' questions on climate change.

Mr Ford rejoined the meeting at 3.53p.m.

Mr McGlone left the meeting at 3.55p.m. and Mr Boylan assumed the Chair.

The main areas of discussion were past and present climate change, carbon dioxide as a pollutant, the weight of scientific evidence in support of man's contribution to climate change, global warming and the use of modern technology in predicting climate change.

Agreed: That details of global temperatures over the past 20 years are collated.

Patsy McGlone
Chairperson, Committee for the Environment
28 May 2009

[EXTRACT]

Thursday 28 May 2009, Senate Chamber, Parliament Buildings

Present: Mr Cathal Boylan (Deputy Chairperson)
Mr Roy Beggs
Mr Trevor Clarke
Mr David Ford
Mr Tommy Gallagher
Mr Patsy McGlone (Chairperson)
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr David McClarty
Mr Ian McCrea
Mr Daithi McKay

6. Inquiry into Climate Change update

The Chairperson informed members that they had been provided with a copy of a report entitled 'Towards a Healthier Economy' for information.

The Chairperson informed members that they had been provided with a tabled paper from Assembly Research Services detailing the government structures dealing with climate change policy and delivery across the UK and in the Republic of Ireland as requested at the meeting on 21 May 2009. A member of Assembly Research briefed the Committee on the paper.

The Chairperson informed members that they had been provided with draft itinerary/further information regarding the proposed Committee visit in relation to the Inquiry into Climate Change for further consideration as agreed at the meeting on 21 May 2009.

7. Inquiry - Oral Evidence from Climate Change Coalition (CCC)

Representatives from Climate Change Coalition (CCC) briefed the Committee and answered members' questions on climate change.

The main areas of discussion were costs and the effect on the NI bloc grant, emissions and targets, energy efficiency, initial outlay costs, the Assembly's role in assisting poorer countries, government incentives, a Northern Ireland climate change act, the scrutiny role of the Environment Committee, the Republic of Ireland Climate Protection Act, OFMDFM's sustainable development role, trading schemes and plastic bags.

Agreed: That information on the consequences for the Barnett formula as a result of the costs of adapting for climate change is requested from DFP.

8. Inquiry - Oral Evidence from Council for Nature Conservation and the Countryside (CNCC)

Representatives from Council for Nature Conservation and the Countryside (CNCC) briefed the Committee and answered members' questions on climate change.

The main areas of discussion were suggestions for scrutiny mechanisms, projected targets for 2020, wind energy, the payback time for wind turbines, hydro-electricity and nuclear energy.

Mr Clarke left the meeting at 1.14p.m.

Mr Ford left the meeting at 1.14p.m.

Patsy McGlone
Chairperson, Committee for the Environment
11 June 2009

[EXTRACT]

Thursday 11 June 2009, Senate Chamber, Parliament Buildings

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr David Ford
Mr Tommy Gallagher
Mr David McClarty
Mr Ian McCrea
Mr Patsy McGlone (Chairperson)
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr William Long (Assistant Clerk)
Mr Sean McCann (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr Trevor Clarke
Mr Daithi McKay

4. Inquiry into Climate Change update

The Chairperson informed members that responses to requests for further information in relation to the climate change inquiry had been included in members' meeting papers for consideration.

Agreed: That no more unsolicited information in relation to climate change is accepted.

5. Climate Change Inquiry - Oral Evidence from Carbon Trust

Mr McClarty rejoined the meeting at 12.20p.m.

A representative from the Carbon Trust briefed the Committee and answered members' questions on climate change.

The main areas of discussion were a low carbon economy, the possibility of a dedicated department of energy and climate change, discussions with businesses and their attitude towards energy efficiency, the level of Carbon Trust's involvement with the public sector, planning service delays in processing renewable energy applications and the implications for Northern Ireland in not moving towards a low carbon economy.

6. Climate Change Inquiry - Oral Evidence from Bairbre de Brún MEP

Mr McCrea left the meeting at 12.55p.m.

Bairbre de Brún MEP briefed the Committee and answered members' questions on climate change.

Mr McClarty left the meeting at 1.02p.m.

Mr McCrea rejoined the meeting at 1.05p.m.

The main areas of discussion were the social and economic benefits throughout Europe in tackling climate change, the extent of public funding throughout Europe, legislation, renewable energy in Europe, electricity production and agriculture sector concerns about carbon labelling.

Patsy McGlone
Chairperson, Committee for the Environment
25 June 2009

[EXTRACT]

Thursday 25 June 2009, Room 144, Parliament Buildings

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr Trevor Clarke
Mr David Ford
Mr Tommy Gallagher
Mr Danny Kinahan
Mr Ian McCrea
Mr Patsy McGlone (Chairperson)
Mr Daithi McKay
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mrs Pauline Hunter (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies:

7. Inquiry into Climate Change update

The Chairperson informed members that the Committee had been forwarded an electronic copy of a submission from arc21.

Agreed: That the submission is accepted as part of the Committee's inquiry.

The Chairperson informed members they had been provided with copies of the further responses received from DETI, DHSS&PS and OFMDFM for information on how and to what extent each of the Public Service Agreements (PSA) for which it has responsibility contributes to Northern Ireland's emission reduction target.

Further information had been provided by Stop Climate Change NI on NI emissions, measures identified by Stop Climate Change NI on climate change for Northern Ireland and the role of the OFMDFM Committee in climate change targets.

The Council for Nature Conservation and the Countryside had provided information requested by members on wind turbine energy and energy produced by other sources such as peat.

Information on the sustainability committees in Wales and the Republic of Ireland and the work they carry out had been provided for members' information. A further research paper entitled 'Cross cutting scrutiny of climate change structures in Wales and the Republic of Ireland' had also been included for information.

A briefing paper from the Carbon Trust entitled 'Carbon Trust support to the public sector' had been included in meeting papers for members' information.

The Sustainability Committee from the National Assembly for Wales has provided copies of four carbon reduction reports that they have published along with copies of letters written to individual ministers following its scrutiny session on mainstreaming sustainability within their portfolios.

A response from the Transport, Infrastructure and Climate Change Committee in the Scottish Parliament on the approaches taken for adapting to and mitigation of climate change, and the effectiveness of government structures responsible had been included for members' information.

The Chairperson informed members that an informal meeting will take place with Sean Barrett, Chairperson of the Oireachtas Joint Committee on Climate Change and Energy Security, in Dublin over lunch on Tuesday 30 June.

Patsy McGlone
Chairperson, Committee for the Environment
2 July 2009

[EXTRACT]

**Thursday 2 July 2009,
Room 144, Parliament Buildings**

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr Trevor Clarke
Mr John Dallat
Mr David Ford
Mr Danny Kinahan
Mr Ian McCrea
Mr Patsy McGlone (Chairperson)
Mr Daithi McKay
Mr Alastair Ross

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mrs Pauline Hunter (Clerical Supervisor)
Mr Nathan McVeigh (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr Peter Weir

The meeting began in public session at 10.35a.m.

The Chairperson welcomed Mr John Dallat to the Committee as a replacement for Mr Tommy Gallagher.

The Chairperson welcomed Nathan McVeigh to the Committee as the new Clerical Supervisor.

The Chairperson thanked the members, Committee staff and DOE staff for their work with the Committee since 2007.

Mr Beggs, Mr Boylan, Mr Ford and Mr McCrea passed on their thanks and best wishes to the Chairperson on the occasion of his final as Chair of the Committee.

The Chairperson thanked Mr Tommy Gallagher for the work he had done on behalf of the Committee.

Agreed: That a letter is sent to Mr Gallagher expressing the Committee's thanks for the work he had done on behalf of the Committee.

1. Apologies

Apologies are listed above.

2. Matters Arising

Declaration of Interests:

The Chairperson informed members that Mr Kinahan's declaration of interest had provided for information.

DFP memorandum on the 10th report from the PAC session 2008-09 – the PFI Contract for NI's New Vehicle Testing Facilities:

The Chairperson informed members that the Committee considered the PAC report on the PFI Contract for NI's New Vehicle Testing Facilities at its meeting on 30 April. DFP had now issued a memorandum on the report for members' information.

Visit to AFB, Hillsborough:

The Chairperson informed members that Committee staff are arranging a visit to AFBI, Hillsborough for 3 September 2009.

Northern Ireland Marine Task Force information:

The Chairperson informed members that information in relation to the meeting with NI Marine Task Force on Monday 29 June had been included in meeting papers for members' information.

Agreed: That Departmental officials are invited to a future meeting to discuss marine legislation.

Local Government (Miscellaneous Provisions) Bill:

The Chairperson informed members that the Local Government (Miscellaneous Provisions) Bill had now entered Committee stage.

Agreed: That a copy of the public notice inviting views on the Bill is sent to NILGA, the National Association of Councillors, SOLACE and the local councils. That Committee staff arrange for the most obvious respondents to give oral evidence immediately after recess.

Reply to Permanent Secretary:

The Chairperson informed members that a reply to the recent letter from the DOE Permanent Secretary had been tabled for members' information.

3. Departmental briefing on the implementation/enforcement of the Taxis Act

Departmental officials briefed the Committee and answered members' questions on the implementation/enforcement of the Taxis Act.

Mr Boylan joined the meeting at 10.54a.m.

The main areas of discussion were Commencement Orders, Departmental resources, delays in implementing secondary legislation, illegal taxiing, fares and vehicle standards.

Agreed: That details of Commencement Orders and dates for their introduction are forwarded to the Committee along with details of human resource on the policy and legislation side and more information on the structures of staff and enforcement figures across Northern Ireland.

4. Briefing by Bryson Charitable Group on the 'Sort it Out' Schools Programme

Mr Beggs declared an interest as a member of Carrickfergus Borough Council.

Mr Kinahan declared an interest as a member of Antrim Borough Council.

Mr McKay joined the meeting at 11.30a.m.

Representatives from the Bryson Charitable Group briefed the Committee and answered members' questions on the 'Sort it Out' Schools Programme.

The main areas of discussion were the replacement for the Community Waste Innovation Fund, funding arrangements, the rationale for the decision to stop funding and the impact on government policy of not supporting these programmes.

Agreed: That Bryson Charitable Group provides the Committee with a list of all schools they have worked with along with an expansion of the figures of the project over the last 4 years

Agreed: That a letter is sent to the DOE Climate Change and Waste Management Unit asking if they recognise the link between Bryson Charitable Group activities and carbon emissions and if this was taken into account when the decision to withdraw funding was made.

5. SL1 - The Planning (Fees) (Amendment) Regulations (Northern Ireland) 2009

Members deliberated on the SL1 - The Planning (Fees) (Amendment) Regulations (Northern Ireland) 2009.

Mr Ross left the meeting at 11.57a.m.

Agreed: Members noted the SL1 - The Planning (Fees) (Amendment) Regulations (Northern Ireland) 2009 and agreed a letter is sent to the DOE stating that Northern Ireland is out of kilter with the rest of GB and that the Committee is concerned about a blanket approach to increasing fees and members would like to see the strategic review addressing and explaining this in particular.

6. Briefing on Private Members Bill – Plastic Bag Levy

Daithi McKay MLA briefed the Committee and answered members' questions on his Private Member's Bill – Plastic Bag Levy.

Mr Ross rejoined the meeting at 12.06p.m.

The main areas of discussion were the accuracy of the figures on the reduction of plastic bag use in the Republic of Ireland, voluntary and mandatory schemes, the charging mechanism, the need for enabling legislation and the need for more information on the proposal.

Mr Ford left the meeting at 12.12p.m.

Mr McCrea left the meeting at 12.13p.m.

Agreed: That Mr McKay provides the Committee with figures on the potential income a 15pence per bag levy would generate, the costs to the Rates Collection Agency in collecting the levy, the side effects of such a levy and the costs and impacts of moving to a paper bag regime

7. Inquiry into Climate Change update

The Chairperson informed members that they had been provided with a first draft of key issues emanating from the climate change inquiry.

Agreed: That the focus remains on the UK Climate Change Act.

The Chairperson informed members that Connaire McGreevy, CTS Projects Ltd, had forwarded, as requested, further information in relation to his recent trip to Sweden. Information had been included on the Swedish model for building towards an oil free society, a graph showing CO2 levels over 350,000 years and information on the new Swedish Government incentive programme to get construction workers back to work by improving energy efficiency.

The Chairperson informed members that they had been provided at with a paper from Assembly Research on the Climate Change Bill in the Scottish Parliament. The purpose of the paper is to outline the main provisions in the Bill to date.

The Chairperson informed members that they had also been provided with a further paper from Assembly Research on the Carbon Trust in NI and the public sector. Members were briefed by the Carbon Trust in relation to the Committee's climate change inquiry and asked for further research on the reasons why the Carbon Trust in NI does not currently work with the public sector.

Agreed: That the Assembly Research papers are published on the website.

Agreed: That a letter is sent to DETI asking why the Carbon Trust is not currently funded to work with the public sector.

Members had also been provided with notes of the meetings from the Committee visit to London as part of the climate change inquiry.

Mr McGlone left the meeting at 12.20p.m. and Mr Boylan assumed the Chair.

Mr Dallat left the meeting at 12.20p.m.

8. Proposals for Secondary Legislation

SL1 – Proposed Amendments to the Public Service Vehicles (Conditions of Fitness and Use) Regulations Relating to Taxis

Agreed: That the Committee considered The SL1 – Proposed Amendments to the Public Service Vehicles (Conditions of Fitness and Use) Regulations Relating to Taxis and had no objection to the proposal.

Members noted the seventeenth report of the Examiner of Statutory Rules.

SL1 - Transposition of EC Directive 2006/118/EC on the Protection of Groundwater Against Pollution and Deterioration

Agreed: That the Committee considered The SL1 – Transposition of EC Directive 2006/118/EC on the Protection of Groundwater Against Pollution and Deterioration

and had no objection to the proposal.

9. Departmental consultations

The Committee considered the following Departmental consultations:

Proposed consultation on the Draft Pollution Prevention and Control (Amendment) Regulations (Northern Ireland) 2009:

Agreed: That a copy of synopsis of response to the consultation is requested from the Department.

Draft Controlled Waste (seizure of property) Regulations (Northern Ireland) 2009:

Agreed: That a copy of synopsis of response to the consultation is requested from the Department.

Mr McCrea rejoined the meeting at 12.33p.m.

Planning Policy Statement 18 'Renewable Energy' and the Wind Energy Supplementary Planning Guidance:

Agreed: That Departmental officials are invited to a future Committee meeting to brief members on this issue.

SuDS Strategy - Managing Stormwater - A Strategy for promoting the use of Sustainable Drainage Systems (SuDS) within Northern Ireland:

Agreed: That the Committee is content for the consultation to issue and that a synopsis of responses to the consultation is requested from the Department.

10. Forward Work Programme

Members noted the revised Committee Forward Work Programme.

The Chairperson informed members that they had been provided with a table showing the progress of work on the DOE Work Schedule January – June 2009.

The Committee noted the slippage within certain work areas in the DOE work schedule and will look at this more closely in September.

11. Correspondence

1. Committee on Climate Change Newsletter – June 2009.

Agreed: That members are content to receive this newsletter via e-mail.

2. Memo from the Committee for Finance and Personnel regarding the Performance and Efficiency Delivery Units (PEDU) Review of Public Service Agreement (PSA) Delivery. Please find attached PEDU's submission.

Agreed: That a letter is sent to the DOE asking for quarterly updates on progress towards PSA targets.

3. E-mail from Michael Dorman, CaterWaste Products Ltd regarding the prohibition of fats, oils and greases from entering the drainage system.

Agreed: That a copy of the e-mail is forwarded to the Department for comment.

4. Departmental response to the Committee's request for further information regarding the Draft River Basin Management Plans – Correspondence from Dr Claire Cockerill, Northern Ireland Freshwater Task Force.

Agreed: That a copy of the response is forwarded to Dr. Cockerill.

5. E-mail from David Gibson regarding planning permission for his clay pigeon shoot.

Agreed: That a copy of the e-mail is forwarded to the Department for comment.

6. Letter from the Chairperson of the Committee for Culture, Arts and Leisure regarding the impact of development on tributary streams and rivers in urban areas.

Agreed: That a copy of the letter is forwarded to the Department for comment.

7. Departmental response to the Committee's request for information on any possible increase in costs associated with local road safety committees having to arrange public liability insurance on an individual basis.

Agreed: That a copy of the response is forwarded to the Newtownabbey Road Safety Committee for information.

8. Memo from the Regional Development Committee regarding the flooding event of 16th August 2008.

Agreed: That a meeting is arranged between the respective Chairs and Deputy Chairs of both Committees.

9. Departmental response to the Committee's request for further information regarding work carried out by Roads Service to a listed bridge, White Bridge, Stranmore Road, Moyallon.

Agreed: That a copy of the response is forwarded to the CAL Committee for information.

10. Memo from the Committee for Health, Social Services and Public Safety regarding a response from the Minister for Health, Social Services and Public Safety to a briefing by Chris Tuppen, BT Chief Sustainability Officer.

Agreed: That a copy of the memo is forwarded to Grainne Brown, BT, for information.

11. Letter from the Department regarding the Committee's request for more information regarding the issues raised in e-mail correspondence from Councillor Tom Ekin in which he calls for the introduction of Clean Neighbourhoods legislation in Northern Ireland.

Agreed: That a copy of the letter is forwarded to Tom Ekin for information.

12. Letter from Nigel Dodds OBE MP MLA, to Mark Durkan MP MLA regarding payment of Departments' invoices.

Agreed: That a letter is sent to the Department asking why they are performing less well than other departments in this area.

13. Members noted a letter from the Minister of the Environment to the Chairperson advising that he intends to announce in the near future a decision on the GAA Centre of Excellence planning application.

14. Members noted a Departmental response to the Committee's request for further information on the development of bioenergy in Northern Ireland.

15. Members noted a letter from the Chartered Institute of Environmental Health regarding the Committee's request for further information in relation to the Committee's inquiry into climate change.

16. Members noted a letter from BT regarding their Sustainability Review.

17. E-mail from RSPB inviting the Committee to a Red Kite release in south County Down on Friday 24th July 2009.

Agreed: That the Committee is content with the RSPB using a photo of Committee members signing the RSPB's Bird of Prey Pledge.

18. Members noted an invitation from the Northern Ireland Government Affairs Group to its summer drinks reception on Thursday 2nd July 2009, Victoria Square, Belfast with guest speaker, Mark Devenport.

19. Members noted an e-mail from Inside Government inviting the Committee to a conference on "Tackling Fuel Poverty" on Tuesday 22nd September 2009 in Central London.

20. Members noted an e-mail from the Town and Country Planning Association inviting the Committee to a workshop on "Planning for Adaptation to Climate Change" at 1pm on Tuesday 28th July 2009 in London.

21. Members noted the following DOE Press Releases:

"New book brings history of Knockbreda alive."

"Wilson approves ambitious £100m harbour eco-village plan".

"Fort gears up for invasion."

"Wilson welcomes publication of local Government Boundaries

Commissioner's final report."

12. Any other business

13. Date, time and place of next meeting

The next meeting will be held on Thursday, 10 September 2009 at 10.30am in Room 144, Parliament Buildings.

The Deputy Chairperson adjourned the meeting at 12.46p.m.

Patsy McGlone
Chairperson, Committee for the Environment
2 July 2009

Thursday 10 September 2009, Room 144, Parliament Buildings

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr John Dallat
Mr Danny Kinahan
Mr Ian McCrea
Mrs Dolores Kelly (Chairperson)
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mr Nathan McVeigh (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr Trevor Clarke
Mr Daithi McKay

The meeting began in public session at 10.34a.m.

1. Apologies

Apologies are listed above.

2. Matters Arising

Chairperson's meeting with DOE Permanent Secretary:

The Chairperson informed members that she met, along with the Deputy Chair, with the Permanent Secretary and Departmental Management Board on 2 September and a note of the meeting was included in the meeting papers.

Agreed: That a letter is sent to the DOE asking for an update on the ongoing implementation of draft PPS21.

Mr Boylan joined the meeting at 10.45a.m.

Delivery Report for the Programme for Government:

The Chairperson informed members that a letter from the OFMdfM Committee Chair, a statement from OFMdfM and an end year Delivery Report for the Programme for Government had been included in meeting papers.

Agreed: That a letter is sent to OFMDFM asking for the date of the Take Note debate.

Declaration of Interests from Mr John Dallat:

The Chairperson informed members that a declaration of interests from Mr John Dallat was included in the meeting papers.

Clean Neighbourhood Legislation:

The Chairperson informed members that a copy of an e-mail from Cllr Tom Ekin in relation to Clean Neighbourhood Legislation had been included in meeting papers. Also included were copies of Research papers on corresponding legislation in the UK and ROI and the relationship between central and local government.

Agreed: That a letter is sent to Mr Ekin advising him of the Minister's intention to bring forward clean neighbourhood legislation.

Agreed: That copies of the Research papers are forwarded to Mr Ekin and posted on the Committee's webpage.

Taxis Act:

The Chairperson informed members that a letter to the Minister from Dawn Purvis MLA in relation to the implementation of the Taxis Act had been included in the meeting papers. Also included were 2 Departmental responses to Committee queries about the implementation of the Act and a note of a meeting between the Chair and representatives from Value Cabs and Fonacab.

Agreed: That a letter is sent to the DOE asking that officials brief the Committee at a future meeting on operators' licences, fares, enforcement and commencement orders.

Agreed: That copies of the Departmental responses are forwarded to Value Cabs, Fonacab and Dawn Purvis MLA.

Agreed: That a letter is sent to the PSNI to ascertain their role in the enforcement of the Taxis Act.

Changes to the DOE's Performance Service Agreement:

The Chairperson informed members that a letter from the DOE notifying the Committee of some proposed changes to the Department's PSA following the PEDU review of the Planning Service had been included in meeting papers.

3. Local Government (Miscellaneous Provisions) Bill – Oral Evidence Session – Craigavon Borough Council

The following members declared an interest:

Dolores Kelly – Member of Craigavon Borough Council

Roy Beggs – Carrickfergus Borough Council

John Dallat – Coleraine Borough Council

Danny Kinahan – Antrim Borough Council

Peter Weir – North Down Borough Council, Vice President NILGA, member of Policy Development Panel A

Craigavon Borough Council officials briefed the Committee and answered members' questions on the Local Government (Miscellaneous Provisions) Bill.

The main areas of the discussion were vesting powers, community planning and wellbeing, enabling powers and planning control.

Agreed: That a Research paper is requested on the comparison of the powers of the Auditor General with the powers of the Local Government Auditor.

4. Departmental briefing on bids submitted to DFP in the September Monitoring Round

Departmental officials briefed the Committee and answered members' questions on bids submitted to DFP in the September Monitoring Round.

The main areas of discussion were the monitoring round process and timing, the shortfall in planning fees income, the Strategic Waste Investment Fund, ePIC and the nature of other 'essential' bids. Some members expressed dissatisfaction with the level of information that had been provided by the Departmental officials in relation to urgent capital bids for improvement works at Crawfordsburn Country Park and the Water Management Unit in Lisburn.

The Chairperson asked members if they supported the Department's monitoring round bids.

The Committee divided.

AYES NOES

Cathal Boylan Dolores Kelly
Ian McCrea Roy Beggs
Alastair Ross John Dallat
Peter Weir Danny Kinahan

The motion of support for the bids therefore fell.

Agreed: That the Chairperson reflects the concerns of the Committee in relation to the September monitoring when this issue is debated in plenary.

Agreed: That a letter is sent to the DOE asking for further information in relation to the bids for refurbishment work at Crawfordsburn Country Park and the Water Management Unit in Lisburn.

Agreed: That Departmental officials brief the Committee on the ePIC project at the meeting on 17 September.

Agreed: That a Research paper is requested on the costs of e planning systems in other UK administrations.

5. Departmental briefing on the Consultation on draft regulations and guidance implementing the Environmental Liability Directive (ELD)

Departmental officials briefed the Committee and answered members' questions on the draft regulations and guidance implementing the Environmental Liability Directive (ELD)

SR 2009/252 – The Environmental Liability (Prevention and Remediation) Regulations (Northern Ireland) 2009

Question put and agreed:

That the Committee for the Environment has considered SR 2009/252 – The Environmental Liability (Prevention and Remediation) Regulations (Northern Ireland) 2009 and has no objection to the rule, subject to the ESR Report.

6. Inquiry into Climate Change update

The Chairperson informed members that they had been provided with the following information in relation to the Committee inquiry into climate change:

- Climate change in Scotland – reply from Director, Climate Change and Water Industry and Environmental Quality Directorates
- Presentation and follow up reply to Committee request for further info from meeting with DOE Climate Change Unit
- Executive summaries of Ireland's National Energy Efficiency Action Plan, the Irish Government's Smart Travel Plan and copy of presentation on Business (and Job) Opportunities in the Environmental Goods and Services Sector
- Sustainable Development Commission information on a Green New Deal for Northern Ireland
- DRD Response to Committee request for information on PSAs
- Response from Department of the Environment, Heritage & Local Government to Committee query on climate change structures
- Chartered Institute of Environmental Health reports on climate change and obesity and housing stock

Agreed: That the information is incorporated into the Committee's climate change inquiry report.

7. Statutory Rules

SR 2009/254 – European Communities Environmental Protection – Groundwater Regulations (NI) 2009

Question put and agreed:

That the Committee for the Environment has considered SR 2009/254 – European Communities Environmental Protection – Groundwater Regulations (NI) 2009 and has no objection to the rule, subject to the ESR Report.

SR 2009/257 – The Smoke Control Areas (Exempted Fireplaces) (Amendment) Regulations (Northern Ireland) 2009

Question put and agreed:

That the Committee for the Environment has considered SR 2009/257 – The Smoke Control Areas (Exempted Fireplaces) (Amendment) Regulations (Northern Ireland) 2009 and has no objection to the rule, subject to the ESR Report.

SR 2009/256 – The Planning (Fees) (Amendment) Regulations (Northern Ireland) 2009

That the Committee for the Environment has considered SR 2009/256 – The Planning (Fees) (Amendment) Regulations (Northern Ireland) 2009 and has no objection to the rule, subject to the ESR Report.

8. Proposals for Secondary Legislation

SL1 – Digital tachographs – downloading of data

Agreed: That Departmental officials are invited to a future Committee meeting to brief members on this proposal.

SL1 - Mobile air conditioning systems in passenger cars and vans

Agreed: That a written briefing is requested from the Department.

9. Departmental consultations

The Committee considered the following Departmental consultations:

Reform of the Planning System:

Agreed: That a copy of the synopsis of responses is requested and that Departmental officials are invited to brief the Committee at the meetings on 8 October and 5 November.

Local Government (Finance) Bill:

Agreed: That a copy of the synopsis of responses is requested.

Consultation on the Retrofitting of Mirrors on Heavy Goods Vehicles:

Agreed: That a copy of the synopsis of responses is requested

DFT Consultation on Review of the UK Domestic Drivers' Hours Rules:

Agreed: That a copy of the synopsis of responses is requested and that Mr Seamus McMahon, Linwoods Bakery, is invited to a future Committee meeting to brief members.

Consultation on Private Member's Bill to end Dual Mandates:

Agreed: That members reply individually to this consultation.

10. Forward Work Programme

Members noted the revised Committee Forward Work Programme.

Members noted the DOE Work Programme.

The Chairperson suggested that due to the Committee's heavy work load it may be prudent to request a written briefing on the CAM Road landfill site planning application before seeking an oral briefing from the Department.

Agreed: That a written briefing on the CAM Road landfill planning application is requested from the Department

11. Correspondence

1. E-mail from Tom Ekin regarding the Clean Neighbourhoods legislation in Northern Ireland.

Agreed: That a copy of the e-mail is forwarded to the Department for comment.

2. DOE response to Letter from Newtownabbey Road Safety Committee in relation to meeting with Minister on 11th June 2009 regarding withdrawal of funding from the Road Safety Council.

Agreed: That a copy of the response is forwarded to the Newtownabbey Road Safety Committee.

3. DOE response to Committees request for further information on Drain Disposal for waste food and fats.

Agreed: That a copy of the response is forwarded to Caterwaste Products Ltd.

4. DOE response regarding submission to Committee from River Faughan Anglers Ltd, "Environmental damage caused by appointed by Government Departments".

Agreed: That a copy of the response is forwarded to River Faughan Anglers Ltd.

5. DOE response to correspondence from Mr David McNarry MLA, Deputy Chairperson for the Committee for Culture, Arts and Leisure townland names.

Agreed: That a copy of the response is forwarded to the Committee for Culture, Arts and Leisure.

6. DOE response to Mr David Gibson's e-mail dated 26th June regarding queries on his clay pigeon shoot.

Agreed: That a copy of the response is forwarded to Mr Gibson.

7. Memo from OFMDFM regarding Monitoring and Review Progress Report 2006-08 on Implementing the Gender Equality Strategy.

Agreed: That a copy of the report is forwarded to the DOE for comment on how they will deliver the actions identified for them.

8. Letter from DOE regarding their Business Plan 2009/10.

Agreed: That a Departmental briefing is requested for a future Committee meeting.

9. Letter from DOE regarding NIEA Corporate and Business Plan 2009 -12.

Agreed: That a Departmental briefing is requested for a future Committee meeting.

10. DOE response regarding Sammy Wilson's proposed meetings with RHA and FTA regarding the Goods Vehicles (Licensing of Operators) Bill.

Agreed: That a copy of the response is forwarded to the Road Haulage Association and Freight Transport Association for their information.

11. E-mail from Committee for Finance and Personnel regarding dates for Departmental returns for 3 remaining monitoring rounds in 2009/10 and the subsequent Ministerial statement on the outcome.

Agreed: That a Departmental briefing is requested for a future Committee meeting.

12. Letter from DOE in relation to the publication of Planning Policy Statement 18.

Agreed: That Departmental officials are invited to a future Committee meeting to brief members on this issue.

12. Any other business

The Chairperson informed members that Committee staff will be in contact finalising arrangements for the European Commission Office visit to Brussels on 4-6 October.

Mr Boylan raised the issue of the North/South Interconnector.

Agreed: That an update on the North/South Interconnector planning application is requested from the DOE.

13. Date, time and place of next meeting

The next meeting will be held on Thursday, 17 September 2009 at 10.30am in Room 144, Parliament Buildings.

The Chairperson adjourned the meeting at 1.15p.m.

Dolores Kelly
Chairperson, Committee for the Environment
17 September 2009

**Thursday 17 September 2009,
Room 144, Parliament Buildings**

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr John Dallat
Mr Danny Kinahan

Mr Ian McCrea
Mrs Dolores Kelly (Chairperson)
Mr Alastair Ross
Mr Peter Weir
Mr Daithi McKay
Mr Adrian McQuillan

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mr Nathan McVeigh (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr David Ford

The meeting began in public session at 10.32a.m.

1. Apologies

Apologies are listed above.

2. Minutes

The minutes of the meeting on 10 September were not agreed.

Agreed: That the Committee Secretariat check a recording of the meeting on 10 September and make the necessary amendments for further discussion at the meeting on 24 September.

3. Matters Arising

DALO letter on PFG 1st quarter monitoring 2009:

The Chairperson informed members that at the meeting on 2 July they asked that the Department provide the Committee with regular updates in respect of PSA Targets and a reply was included in members' meeting papers.

Agreed: That the Department is asked to clarify the criteria used to denote the 'amber' category and confirm that this is universally agreed across all Departments.

Record of members' attendance

The Chairperson informed members that they had been provided with a copy of Committee meeting attendance for the period September 2008 – August 2009.

Agreed: That the information is published on the Assembly website.

Departmental update on the Taxis Act:

The Chairperson informed members that they had been provided with a Departmental update on the Taxis Act which followed questions raised by the Chair and Deputy Chair at the meeting with the Permanent Secretary and Departmental Management Board.

Agreed: That the update is forwarded to Value Cabs, Fonacabs and the Belfast Public Hire Taxis Association.

Agreed: That a letter is sent to the Belfast Public Hire Taxis Association asking for their views on the implementation and enforcement of the Taxis Act.

Agreed: That two members meet the Department to discuss key issues.

Committee end of session report:

The Chairperson informed members that they had been provided with a Committee End of Session Report. The report details the main areas of work of the Committee from September 2008 – August 2009 including subordinate legislation, visits and Bills.

Agreed: That the information is published on the Assembly website.

4. Local Government (Miscellaneous Provisions) Bill – Oral Evidence Session – Belfast City Council

The following members declared an interest:

Dolores Kelly – Member of Craigavon Borough Council

Roy Beggs – Carrickfergus Borough Council

John Dallat – Coleraine Borough Council

Danny Kinahan – Antrim Borough Council

Peter Weir – North Down Borough Council, Vice President NILGA, member of Policy Development Panel A

Before taking evidence members considered a submission to the consultation on the bill from Mr James Whitten.

Agreed: That Mr Whitten is invited to give oral evidence to the Committee.

Belfast City Council officials briefed the Committee and answered members' questions on the Local Government (Miscellaneous Provisions) Bill.

Mr McCrea left the meeting at 11:15

The main areas of discussion were the timescale to implement the Bill, working relationships between Belfast City Council and NILGA / ARC21, the need to introduce key elements of the Waste Bill quickly and the creation of Statutory Transition Committees.

Mr McCrea rejoined the meeting at 11:25

Mr McQuillan left the meeting at 11.38a.m.

Agreed: That a letter is sent to the Department asking for information on the mechanisms used to inform local councils of local government reform.

5. Local Government (Miscellaneous Provisions) Bill – Oral Evidence Session – NILGA/arc21

The following members declared an interest:

Dolores Kelly – Member of Craigavon Borough Council

Roy Beggs – Carrickfergus Borough Council

John Dallat – Coleraine Borough Council

Danny Kinahan – Antrim Borough Council

Peter Weir – North Down Borough Council, Vice President NILGA, member of Policy Development Panel A

NILGA and arc21 officials briefed the Committee and answered members' questions on the Local Government (Miscellaneous Provisions) Bill.

The main areas of discussion were Statutory Transition Committees, the timescale of the Waste Bill, dissemination of information on local government reform and severance.

Agreed: That a letter is sent to NILGA asking how they are managing the balance of membership of Statutory Transition Committees.

Mr McKay joined the meeting at 12:08p.m.

6. Departmental briefing on the ePIC planning system

A departmental official briefed the Committee and answered members' questions on the ePIC planning system.

The main areas of discussion were the timescales of the ePIC system and the budget and expenditure for the project and the proposed launch date of the system.

Agreed: That a letter is sent to the Comptroller and Auditor General asking for the Epic project to be investigated immediately.

7. Inquiry into Climate Change update

The Chairperson informed members that they had been provided with presentations from the visit to AFBI Hillsborough on 2 September and a DSD reply on social housing standards.

Agreed: That the information is incorporated into the Committee's climate change inquiry report.

The Chairperson further informed members that they had been provided with a copy of a draft inquiry report.

Agreed: That further discussion of the report takes place at the end of the meeting in closed session.

8. Statutory Rules

The Chairperson informed members that the Examiner of Statutory Rules has passed comment on 2 of the Rules passed by the Committee at the meeting on 10 September:

- SR 2009/252 - The Environmental Liability (Prevention and Remediation) Regulations (NI) 2009
- SR 2009/254 – European Communities Environmental Protection – Groundwater Regulations (NI) 2009

The Examiner states that both sets of regulations are defectively drafted in one or more respects which has been acknowledged by the Department.

Agreed: That the Committee endorses the view of the Examiner and requests an update from the DOE as to the timescale for making the necessary amendments and to write to the Minister expressing disappointment at the defective drafting of these Statutory Rules in light of the amount of secondary legislation to be drawn up by DOE this session.

SR 2009/302 – The Motor Vehicles (Exchangeable Licenses) Order (NI) 2009

Question put and agreed:

That the Committee for the Environment has considered SR 2009/302 – The Motor Vehicles (Exchangeable Licenses) Order (Northern Ireland) 2009 and has no objection to this rule, subject to the ESR Report.

9. Departmental consultations

The Committee considered the following Departmental consultations:

Driver Certificate of Professional Competence – Improvements to Administrative Arrangements – synopsis of responses

Agreed: That the Committee is content for the Department to proceed with the policy.

Mr Weir left the meeting at 12:47

The Committee noted the consultation on Northern Ireland Multiple Deprivation Measure 2009.

Agreed: That no Committee response should be made

MERCURY – UK-wide consultation on UK-wide Statutory Instrument to implement an export ban of mercury and requirement for safe storage of mercury waste:

Agreed: That a synopsis of responses to the consultation is requested.

10. Forward Work Programme

Members noted the revised Committee Forward Work Programme.

11. Correspondence

1. Letter from DOE regarding funding of Bryson House's "Sort it Out" educational programme.

Agreed: That a copy of the letter is forwarded to the Bryson Charitable Group.

2. Letter from member of the public regarding an individual planning application

Agreed: That this letter is forwarded to the department for comment and to reply directly to the individual. A letter should also be sent to the individual informing him of this action.

3. E-mail from Dr Joseph Obi requesting a full governmental investigation into a car registration company.

Agreed: That a copy of this email is forwarded to the department for a direct reply to Dr Obi .

4. Memo from CAL Committee regarding Departmental revenue from proceeds of crime.

Agreed: That a copy of the memo is forwarded to the DOE for comment.

Members noted the following correspondence:

E-mail from the Environmental Audit Committee re their recent inquiry on climate change adaptation.

E-mail regarding Europe's World Newsletter #30 – Stuart Eizenstat on Obama's climate change options.

Letter from former Minister regarding a proposed distribution warehouse with associated car parking planning application T/2007/0656.

Letter from former Minister regarding Magheramorne Works and Quarry planning application F/2006/0131.

Letter from the Minister regarding current consideration of Draft PPS 7 Addendum "Safeguarding the Character of Established Residential Areas"

Letter from DOE regarding a delay on the consultation on The (draft) Environmental Protection (Controls on Ozone Depleting Substances) (Amendment) Regulations (Northern Ireland) 2009 and The draft Ozone – Depleting Substances (Qualifications) Regulations (Northern Ireland) 2009.

Letter from the department regarding a Committee request to be kept informed in relation to the progress of the work of the Department's topsoil working group.

Letter from RSPB regarding their new document "Think Nature – How To Give Life To Sustainable Development".

Planning reform booklet "Make the most of the opportunity" and NI planning reform: Third party rights of appeal (TPRA).

Committee on Climate Change Annual Report and Accounts 2008-09.

E-mail from The Participation Network, Children in Northern Ireland informing the Committee that their new website is now available.

Public perceptions on climate change in Northern Ireland 2009 report.

Members noted the following invitations:

Invitation to the Private View and launch party of CIWEM's Environmental Photographer of the Year 2009.

Rural Community Network "Enabling the Future by Considering the Past".

Public Service Events, "Project and Programme Management 2009 – Delivering Best Practice.

Sustainable Development Commission NI "Northern Ireland and the Transition to a Sustainable Economy"

12. Any other business

Mr Dallat raised the issue of a planning application for a super dump at Craigmore.

Agreed: That this issue is put on the agenda for further discussion at the meeting on 24 September.

13. Date, time and place of next meeting

The next meeting will be held on Thursday, 24 September 2009 at 10.30am in Room 144, Parliament Buildings.

The Chairperson adjourned the meeting at 12.54.p.m.

Dolores Kelly
Chairperson, Committee for the Environment
24 September 2009

Thursday 24 September 2009, Room 144, Parliament Buildings

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr John Dallat
Mr David Ford
Mrs Dolores Kelly (Chairperson)
Mr Danny Kinahan
Mr Ian McCrea
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mr Nathan McVeigh (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr Adrian McQuillan

The meeting began in public session at 10.33a.m.

1. Apologies

Apologies are listed above.

2. Minutes

The minutes of the meeting on 17 September were agreed.

3. Chairperson's business

Procurement methods:

The Chairperson informed members that a letter was sent to the Department in August regarding procurement methods used by local government divisions to appoint consultants or agencies, specifically with regard to reform of local government. A copy of the response had been included in meeting papers for consideration.

Agreed: That a letter is sent to the DOE asking for more information on this issue.

Meeting start time:

The Chairperson proposed that the Environment Committee meetings would start at the earlier time of 10.00am to facilitate those who have further business to attend after the meeting.

Agreed: That the Committee meetings will start at 10.00am starting from 1 October 2009.

Meeting with Minister on 5 November:

The Chairperson informed members that the Minister has agreed to brief on the planning reform consultation at the meeting on 5 November. The Minister has asked that he also briefs members on PPS21 at the meeting.

Agreed: That the Minister also briefs on PPS21 at the meeting on 5 November and that a request is made for the appropriate papers in advance of this meeting.

4. Matters arising

Amended Minutes from meeting on 10 September:

The Chairperson informed members that they have been provided with a copy of amended minutes from the meeting on 10 September for discussion.

Agreed: That members were content with the amended minutes.

Provision of Information to the Committee:

The Chairperson informed members following a meeting with the Permanent Secretary and Departmental Management Board, the Department had forwarded the following information:

- briefing on the Local Government (Finance) Bill, which had been previously received by the Committee in April and June 2009;
- a copy of the consultation document on nuisance high hedges, issued in August 2005, along with a synopsis of responses; and
- details of the provisions to be covered in, along with a timetable for, the Wildlife Bill.

DOE Update on planning issues around the building of slurry tanks:

The Chairperson informed members that at the meeting on 10 September the Committee agreed to request a written briefing on planning issues around the building of slurry tanks before deciding if an oral briefing from DOE and DARD officials was still necessary. The response had been included in meeting papers for consideration.

Agreed: That members were content with the response and no oral briefing was required

Declaration of interests:

The Chairperson informed members that her declaration of interest was included in meeting papers for information.

Craigmore Quarry (Garvagh):

The Chairperson informed members that at the meeting on 17 September Mr Dallat raised the issue of the planning application for a landfill site at Craigmore and invited Mr Dallat to speak on the issue.

Agreed: That further information in relation to the planning application is requested from the Department.

Agreed: That a letter is sent to the Environmental Health Department of Coleraine Borough Council asking for their views on the planning application.

4. Local Government (Miscellaneous Provisions) Bill – Oral Evidence Session – Omagh District Council

The following members declared an interest:

Dolores Kelly – Member of Craigavon Borough Council

Roy Beggs – Carrickfergus Borough Council

John Dallat – Coleraine Borough Council

Danny Kinahan – Antrim Borough Council, substitute of South Antrim council on Arc21

Peter Weir – North Down Borough Council, Vice President NILGA, member of Policy Development Panel A

Ian McCrea – Cookstown Borough Council

David Ford – Antrim Borough Council

The Chairperson informed members they had been provided with a paper from the Examiner of Statutory Rules on the delegated powers of the Bill along with a Bill timeline.

Omagh District Council officials briefed the Committee and answered members' questions on the Local Government (Miscellaneous Provisions) Bill.

The main areas of discussion were Statutory Transmission Committees, severance and governance.

5. Local Government (Miscellaneous Provisions) Bill – Initial clause by clause consideration

The following members declared an interest:

Dolores Kelly – Member of Craigavon Borough Council

Roy Beggs – Carrickfergus Borough Council

John Dallat – Coleraine Borough Council

Danny Kinahan – Antrim Borough Council, substitute of South Antrim council on Arc21

Peter Weir – North Down Borough Council, Vice President NILGA, member of Policy Development Panel A

Ian McCrea – Cookstown Borough Council

David Ford – Antrim Borough Council

The main areas of discussion were vesting powers, certified contracts and SWIF funding.

Agreed: That a letter is sent to the Minister to ascertain his views on the widening of vesting powers.

6. Forward Work Programme

The Chairperson informed members that they had been provided with an update version of the Committee Forward Work Programme for information.

Members noted that the Committee meeting on 22 October would take place in Derrygonnelly Field Studies Centre, Fermanagh.

7. Inquiry into Climate Change update

The Chairperson informed members that they had been provided with a copy of a draft inquiry report for further consideration.

Agreed: That further discussion of the report takes place at the end of the meeting in closed session.

Agreed: That the timescale for the final report to be published is extended to the end of November to allow for fuller discussion on recommendations and conclusions in the report.

8. Correspondence

Mr Ross left the meeting at 11.57am

1. Letter from World Wildlife Fund requesting the opportunity to brief the Committee on River Basin Management Plans.

Agreed: That Dr Claire Cockerill is invited to a future meeting to brief the Committee on this issue.

2. Members noted a letter from NIEL regarding Committee consideration of the Environment Liability Directive.

3. Letter from Finance and Personnel Committee Clerk regarding the monitoring of efficiency delivery plans from the Department of Finance and Personnel.

Agreed: That the committee requests a copy of the Department's efficiency delivery plan along with an indication of how it is progressing to date.

Members noted the following items of correspondence:

Press release from the Health Protection Agency "Still no basis for health effects from low level radiowaves, say biologists".

E-mail regarding NIEL News September 2009.

Press release from the Health Protection Agency "Scientists probe laptops' Wi-Fi emissions".

Update Letter from Department on the Minister's intention to launch the public consultation paper, "Reform of the Planning System in NI: Your chance to influence change".

Memo from Committee for Regional Development regarding NIEL information on proposals to reform the planning system

Memo from Committee for Regional Development regarding a DRD response to consumer council submission on draft river basin management plans.

Letter from Antrim & District Angling Association regarding a petition to save Northern Ireland's treasured trout resource.

Department of the Environment Resource Accounts for the year ended 31 March 2009

Members noted the following DOE press releases:

- Minister updates Assembly on planning reform
- Views sought from motorcyclists into roads safety issues
- Minister goes back to school with road safety message
- Poots launches the new Ulster Way route
- Kilkeel man found guilty of illegal waste offence
- Minister gives top marks to Armagh school

- Vehicle breaker fined £3000 for waste offences
- Mauve stinger jellyfish returns to north Antrim coast

Members noted the following invitations:

Invitation From Utility Regulator - "Information Event on Price Control 2010 to 2013 Draft Determination for NI Water"

Committee on Climate Change - "A strategy for Meeting Carbon Budgets"

Capita Interactive Seminar "Understanding the European Union"

Invitation for Chairperson to speak as guest speaker at the National Association of Councillors' Annual Conference

Chairperson invitation to meet with Quarry Products Association

12. Any other business

13. Climate Change Inquiry – closed session

Members discussed the conclusions of the draft report.

Agreed: That the timescale for the final report to be published is extended to the end of November to allow for fuller discussion on recommendations and conclusions in the report.

13. Date, time and place of next meeting

The next meeting will be held on Thursday, 1 October 2009 at 10.00am in Room 144, Parliament Buildings.

The Chairperson adjourned the meeting at 11.58p.m.

Dolores Kelly
Chairperson, Committee for the Environment
1 October 2009

Thursday 1 October 2009, Room 144, Parliament Buildings

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr John Dallat
Mr David Ford
Mrs Dolores Kelly (Chairperson)
Mr Danny Kinahan
Mr Ian McCrea
Mr Adrian McQuillan
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mr Nathan McVeigh (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr Daithi McKay

The meeting began in public session at 10.05. a.m.

1. Apologies

Apologies are listed above.

2. Minutes

The minutes of the meeting on 24 September were agreed subject to a minor amendment.

3. Chairperson's business

The Chairperson informed members that she met with the Rural Community Network on 22 September to hear their views on Planning Reform.

The Chairperson informed members that the visit to the European Commission and European Parliament will take place from 4 – 6 October. Members had been provided with a copy of the itinerary in meeting papers.

The Chairperson informed members that the Committee meeting on 22 October will take place at Derrygonnelly Field Studies Centre Fermanagh. Members should indicate their availability to Committee staff if they hadn't already done so. The RSPB had also written to the Committee asking for members to view some of their work in the area.

Agreed: That a letter is sent to the RSPB advising that, due to time constraints, the Committee will not be able to take up this invitation.

4. Matters arising

The Chairperson informed members that they had been provided with a Departmental response on Driver and Vehicle Agency's recruitment of enforcement officers as requested by the Committee at the meeting on 10 September.

Agreed: That an explanation for the moratorium on filling vacancies is requested from the Department and that information is requested on the timescale for re-introduction of the Goods Vehicles (Licensing of Operators) Bill and details of the existing legislation that the new enforcement officers would be working to.

The Chairperson informed members that they had been provided with a copy of the Departmental briefing note on ePIC from the meeting on 17 September when members decided to refer the project to the Comptroller and Auditor General.

The Chairperson informed members that they had been provided with copies of the PFG Delivery report on Public Service Agreements, the DALO letter regarding DOE performance on these

targets and a comparison table highlighting differences in the PFG report and the DOE performance update.

Agreed: That a letter is sent to OFMdFM asking for further information on the review of PSA 22 and that a letter is sent to DOE seeking clarification on the discrepancies around PSA 20.

The Chairperson informed members that they had been provided with a Departmental reply to the Committee's query on the DOE Gender Equality Strategy action plan.

Agreed: That a letter is sent to the DOE expressing disappointment with the unspecific and generalised targets for females.

Agreed: That a letter is sent to the DOE asking if a similar action plan is in place for disability.

Agreed: That a copy of the plan is forwarded to the Women's Ad Hoc Policy Group and the Equality Commission seeking comments on what actions can be taken to improve the plan.

Mr Ford joined the meeting at 10.28a.m.

Mr McQuillan joined the meeting at 10.32a.m.

The Chairperson informed members that they had been provided with a Departmental reply on September monitoring round bids as requested at the meeting on 10 September. The Committee had asked for further information on the urgent capital bids for work at Crawfordsburn Country Park and the Water Management Unit at Lisburn.

Agreed: That a letter is sent to DFP asking for the decision on treating the SWIF funding as capital money rather than resource is reviewed as the Committee is concerned with the implications of delays on potential infraction proceedings regarding waste.

The Chairperson informed members that they had been provided with a copy of the DOE infraction schedule. The Department agreed to forward a schedule on a 6 monthly basis.

Agreed: That, in future, the Department provides the Committee with a tabular comparison highlighting which issues are new and which issues have been dealt with.

Agreed: That a letter is sent to the Department asking for a detailed schedule on any issue facing article 228 proceedings and asking for information on the work the Department is carrying out to rectify the situation to the satisfaction of the European Commission.

The Chairperson informed members that they had been provided with a Departmental reply on the planning application for a landfill site at Cam Road. Members requested a written briefing at the meeting on 10 September.

Mr Dallat proposed the motion that the Committee hear the local residents' views before hearing from the Department.

The Committee divided:

AYES NOES

John Dallat Roy Beggs
Cathal Boylan Peter Weir

David Ford Alastair Ross
Adrian McQuillan Ian McCrea
Dolores Kelly Danny Kinahan

The motion therefore fell.

Agreed: That Departmental officials are invited to brief on this issue at a future meeting and that the local residents are also invited to brief members at the same meeting after the Department.

Agreed: That a letter is sent to the Minister seeking reassurance that the assurances that he gave to Cam Road residents in relation to the planning application would be kept.

Mr Ford left the meeting at 11.08a.m.

Mr Weir left the meeting at 11.08a.m.

Mr McCrea left the meeting at 11.08a.m.

The Chairperson informed members that they had been provided with a Departmental reply on the North/South Interconnector as requested at the meeting on 10 September.

Agreed: That a letter is sent to the Department asking for regular updates on the progress of the planning application on this issue.

The Chairperson informed members that they have been provided with a Research paper – comparison of Auditor General powers with the powers of the Local Government Auditor as requested at the meeting on 17 September. A member of Assembly Research and Library Services briefed members on the paper.

Agreed: That Assembly Research would provide further information on the one local council that does not have an internal audit process, proposals in the RPA in relation to the internal audit process and information on whether a Statutory Transition Committee has the power to veto a Local Government Auditor decision.

Agreed: That a copy of the Research paper is published on the Assembly website and forwarded to NILGA, NILGOSC and the DOE local government division for comment.

5. Local Government (Miscellaneous Provisions) Bill – Oral Evidence Session –James Whitten

The following members declared an interest:

Dolores Kelly – Member of Craigavon Borough Council

Roy Beggs – Carrickfergus Borough Council

John Dallat – Coleraine Borough Council

Danny Kinahan – Antrim Borough Council, substitute of South Antrim council on Arc21

Omagh District Council officials briefed the Committee and answered members' questions on the Local Government (Miscellaneous Provisions) Bill.

The main areas of discussion were ideas for recognition of councillors' work in local government, the timescale for a severance scheme and severance schemes in other UK administrations.

5. Local Government (Miscellaneous Provisions) Bill – Initial clause by clause consideration

Mr Ross left the meeting at 11.47a.m.

The following members declared an interest:

Dolores Kelly – Member of Craigavon Borough Council

Roy Beggs – Carrickfergus Borough Council

John Dallat – Coleraine Borough Council

Danny Kinahan – Antrim Borough Council, substitute of South Antrim council on Arc21

Ian McCrea – Cookstown Borough Council

David Ford – Antrim Borough Council

Mr Ford rejoined the meeting at 11.48a.m.

Mr McCrea rejoined the meeting at 11.49a.m.

Mr Ross rejoined the meeting at 12.05p.m.

The main areas of discussion were Statutory Transition Committees, severance packages and the functions of councils after the establishment of transition committees and co-option.

Mr Kinahan left the meeting at 12.17p.m.

Mr McQuillan left the meeting at 12.30p.m.

The Chairperson left the meeting at 12.36p.m. and Mr Boylan assumed the Chair.

6 Local Government (Miscellaneous Provisions) Bill – formal clause by clause consideration

The Chairperson informed members that they now needed to formally consider each clause of the Bill.

Clause 1. Functions to include power to enter contracts

The Committee agreed to the clause as drafted, subject to the removal of sub paragraph (3)

Clause 2. Certified contracts to be intra vires

The Committee decided further information was needed on this clause before coming to a decision.

Clause 3. The certification requirements

The Committee agreed to the clause as drafted.

Clause 4. Certified contracts: supplementary

The Committee agreed to the clause as drafted.

Clause 5. Special provision for judicial reviews and audit reviews

The Committee agreed to the clause as drafted.

Clause 6. Relevant discharge terms

The Committee agreed to the clause as drafted.

Clause 7. Absence of relevant discharge terms

The Committee agreed to the clause as drafted.

Clause 8. Interpretation of this Part

The Committee agreed to the clause as drafted.

Clause 9. Introductory

The Committee decided further information was needed on this clause before coming to a decision.

Clause 10. Control of disposals and contracts of existing councils

The Committee decided further information was needed on this clause before coming to a decision.

Clause 11. Directions: supplementary

The Committee agreed to the clause as drafted.

Clause 12. Consideration to be taken into account for purposes of direction

The Committee agreed to the clause as drafted.

Clause 13. Contravention of direction

The Committee decided further information was needed on this clause before coming to a decision.

Clause 14. Statutory transition committees: constitution

The Committee decided further information was needed on this clause before coming to a decision.

Clause 15. Statutory transition committees: functions

The Committee decided further information was needed on this clause before coming to a decision.

Clause 16. Power to modify existing legislation

The Committee decided further information was needed on this clause before coming to a decision.

Clause 17. Severance payments to councilors

The Committee decided further information was needed on this clause before coming to a decision.

Clause 18. Acquisition of land otherwise than by agreement

The Committee agreed to the clause as drafted.

Clause 19. Application of certain provisions to certain joint committees constituted as bodies corporate

The Committee agreed to the clause as drafted.

Clause 20. Regulations and orders

The Committee agreed to the clause as drafted.

Clause 21. Interpretation of this Act

The Committee agreed to the clause as drafted.

Clause 22. Commencement

The Committee agreed to the clause as drafted.

Clause 23. Short title

The Committee agreed to the clause as drafted.

Long title

The Committee agreed to the Long title of the Bill

7. SL1 – Mobile Air Conditioning Systems in Passenger Cars and Vans

The Chairperson informed members they considered this SL1 at the meeting on 10 September when they decided that they would like further information before making a decision.

Agreed: That the Committee is content with the proposal.

Members noted a copy of the second Examiner of Statutory Rules report.

8. Consultations

Consultation on draft River Basin Management Plans:

Agreed: That a copy of the synopsis of responses is forwarded to the Committee for Regional Development and that DOE officials are invited to brief on this issue at a future Committee meeting.

The draft Disability Discrimination (Transport Vehicles) Regulations (NI):

Agreed: That a response is drafted based on the evidence given to the Committee during the Committee stage of the Taxis Bill.

Consultation on the definition of "Significant Personal Injury" under the 5th Motor Insurance Directive (2005/14/EC):

Agreed: That a copy of the synopsis of responses is requested from the Department along with the list of targeted groups referred to in the consultation.

Consultation on retrofitting of mirrors to HGVs – synopsis of responses:

Agreed: That a letter is sent to the Department advising the Committee is content for the policy to proceed but has concerns around the costs being passed to the road haulage industry.

9. Forward Work Programme

The noted the updated version of the Committee Forward Work Programme for information.

Members noted that the Committee meeting on 22 October would take place in Derrygonnelly Field Studies Centre, Fermanagh.

10. Inquiry into Climate Change update

The Chairperson informed members they had been provided with a letter from the DFP Minister Sammy Wilson in relation to a Committee query on the funding options available to the Carbon Trust to assist the public sector to meet its carbon reduction commitments.

The Chairperson informed members they had been provided with a copy of Greenhouse Gas Emissions from Road Transport – Baseline Report which was forwarded by the Committee for Regional Development.

Agreed: That this information is incorporated into the final Committee report.

9. Correspondence

1. Letter from Michael Copeland on behalf of the RACKS residents group seeking a meeting with the Committee Chairperson.

Agreed: That more information is sought in relation to this request.

2. Rural Community Network request to brief the Committee and give evidence during the Committee Stage of the Planning Reform proposals.

Agreed: That a letter is sent to the Rural Community Network advising Departmental officials and the Minister will brief members on this issue at the meeting on 5 November and advising that they may wish to submit a briefing when the Planning Reform Bill reaches Committee stage.

3. Letter from D Engineering Ltd requesting the chance to brief the Committee on pyrolysis of poultry litter.

Agreed: That a copy of the letter is forwarded to the Committee for Agriculture and Rural Development and that further information is sought from D Engineering Ltd.

4. Request from Drumadarragh Residents Association to brief the Committee on PPS 18.

Agreed: That a copy of the letter is forwarded to the Department for comment.

5. Letter from DOE in reply to Cllr Tom Ekin's correspondence on the Clean Neighbourhood agenda.

Agreed: That a copy of the reply is sent to Cllr Ekin

The Committee noted the following items of correspondence:

Briefing from RSPB - Energy: A Draft Strategic Energy Framework for Northern Ireland 2009.

Northern Ireland Local Government Officers' Superannuation Committee Annual Report 08/09.

Planning Service Development Management Statistics Northern Ireland, 2009/10 First Quarterly Statistical Bulletin (April to June 2009).

Memo from Clerk to the Central Committee Office regarding the publication of members' attendance at Committee meetings.

Letter from RSPB regarding their "Safe and Sound" leaflet.

Members noted the following media articles and DOE press releases:

I want to leave environment in better shape says Minister Poots

Greens call on Poots to set five-year emission targets

Poots Delivers Road Safety Message

Minister Poots commits to Waste Management Strategy

Poots announces legislation on high hedges and clean neighbourhoods

Poots welcomes fall in Greenhouse gas emissions

Role of Transition Committees is crucial – Poots

Poots encourages motorcyclists to bike safely

Members noted the following invitations:

Invitation from RTPI to a series of events:

Update on approaches to open space

Retail and town centres conference

Planning and health in the community

Transport and development conference

Environmental Impact Assessments

10. Any other business

11. Date, time and place of next meeting

The next meeting will be held on Thursday, 8 October 2009 at 10.00am in Room 144, Parliament Buildings.

The Deputy Chairperson adjourned the meeting at 1.12p.m.

Dolores Kelly
Chairperson, Committee for the Environment
8 October 2009

Thursday 8 October 2009, Room 144, Parliament Buildings

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr John Dallat
Mr David Ford
Mrs Dolores Kelly (Chairperson)
Mr Danny Kinahan
Mr Ian McCrea
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mr Nathan McVeigh (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)

Apologies: Mr Daithi McKay
Mr Adrian McQuillan

The meeting began in public session at 10.07. a.m.

1. Apologies

Apologies are listed above.

2. Minutes

The minutes of the meeting on 1 October were agreed.

3. Chairperson's business

DOE progress on the Barroso Report:

The Chairperson advised members that they had been provided with a table showing DOE progress in relation to actions identified in the Barroso Report.

Agreed: That the report is forwarded to the Northern Ireland Environment Link (NIEL) for comment and included for discussion at a future meeting.

Brussels visit press release:

The Chairperson advised members that they had been provided with a copy of a draft press release for the Brussels visit.

Agreed: That the press release is issued.

4. Matters arising

The Chairperson informed members that they had been provided with a copy of a letter from the Department advising that they are proposing to make a Commencement Order under powers conferred by section 56 of the Taxis Act 2008.

Agreed: That a copy of the Order is forwarded this to public and private hire taxi organisations. That the Department is asked for an update of the timing of further commencement orders under the Taxis Act.

Mr Boylan joined the meeting at 10.11a.m.

5. Local Government (Miscellaneous Provisions) Bill – formal clause by clause consideration

The following members declared an interest:

Dolores Kelly – Member of Craigavon Borough Council

Roy Beggs – Member of Carrickfergus Borough Council

Danny Kinahan – Antrim Borough Council, substitute of South Antrim council on Arc21

Peter Weir – North Down Borough Council, Vice President NILGA, member of Policy Development Panel A

Ian McCrea – Cookstown Borough Council

David Ford – Antrim Borough Council

The Chairperson informed members they had been provided with a copy of the key issues emerging from the evidence sessions on the Bill for consideration.

Agreed: That members were content with the key issues paper subject to confirmation of the three voting mechanisms referred to.

The Chairperson informed members they had been provided with correspondence from the DOE and NILGA in relation to the RPA Communications Action Plan.

Agreed: That a letter is sent to the DOE asking that the Committee are copied into any further communication on this issue.

The Chairperson informed members that they now needed to formally consider the clauses of the Bill which could not be agreed at the meeting on 1 October.

Clause 2 - Certified contracts to be intra vires

The Committee agreed the clause as drafted subject to the amendments proposed by the Department.

The Department noted that the additional waste vires powers would be included through an amendment but not in this clause.

Clause 9 – Introductory

The Committee agreed the clause subject to a Committee recommendation that the clause is amended to reflect the concerns of members.

Clause 10 - Control of disposals and contracts of existing councils

The Committee agreed the clause subject to a Committee recommendation that the clause is amended to reflect the concerns of members.

Clause 13 - Contravention of direction

The Committee agreed the clause subject to a Committee recommendation that the clause is amended to reflect the concerns of members.

Clause 14 - Statutory transition committees: constitution

The Committee decided to refer the clause for further consideration.

Clause 15 - Statutory transition committees: functions

Mr Ross left the meeting at 10.45a.m.

The Committee decided to refer the clause for further consideration.

Clause 16 - Power to modify existing legislation

The Committee agreed the clause as drafted.

Clause 17 - Severance payments to councillors

Mr Weir joined the meeting at 10.49a.m.

Mr Ross rejoined the meeting at 10.50a.m.

The Committee agreed the clause as drafted.

Clause 1(3)

The Committee agreed the clause subject to the amendment proposed by the Department.

Agreed: That a meeting is held on Tuesday 13 October at 12.45p.m. to discuss the remaining clauses and to formulate Committee recommendations for amendments.

6. Departmental briefing on Planning Reform consultation

Departmental officials briefed the Committee and answered members on the emerging views from the Planning Reform consultation.

Mr Weir left the meeting at 11.05a.m.

The main areas of discussions were the timescale for Planning Reform, development management, enforcement, fees, funding of Planning Reform and a brief outline of the consultation period and feedback on responses.

Mr Ross left the meeting at 11.19a.m.

Mr Weir rejoined the meeting at 11.30a.m.

Mr Ross rejoined the meeting at 11.35a.m.

Mr Dallat joined the meeting at 11.39a.m.

Mr McCrea left the meeting at 11.45a.m.

7. Departmental briefing on marine issues

Departmental officials briefed the Committee and answered members on the need for Northern Ireland marine legislation.

Mr McCrea rejoined the meeting at 12.00p.m.

Mr Ross left the meeting at 12.15p.m.

The main areas of discussion were marine policy statements, timescales for marine legislation in Northern Ireland and UK, pilot projects, marine spatial planning and a marine management organisation.

Agreed: That a letter is sent to the Department requesting a flow chart for the introduction of legislation across all 4 UK jurisdictions and details of any policy discussions held at British/Irish Council level and with Scotland and the Republic of Ireland.

Agreed: That a letter is sent to the Department requesting a definitive list of the departments and agencies that an applicant has to go through to receive planning permission for a marine related activity.

Mr Kinahan left the meeting at 12.32p.m.

8. Briefing by Northern Ireland Marine Task Force on marine issues

Representatives from the Northern Ireland Marine Task Force briefed the Committee and answered members' on the need for Northern Ireland marine legislation.

The main areas of discussion were marine policy statements, timescales for marine legislation in Northern Ireland and UK, pilot projects, marine spatial planning and a marine management organisation.

Agreed: That the Northern Ireland Marine Task Force provides the Committee with a copy of their report into marine issues in Northern Ireland, copies of reports on the Scottish pilot projects in Clyde, indicative costs of pilot projects in Northern Ireland and information on successful marine projects globally.

Agreed: That a letter is sent to the Minister reflecting Committee concerns on the timescales for Northern Ireland marine legislation.

9. SL1 - The Nitrates Action Programme (Amendment) Regulations (Northern Ireland) 2009

Members considered the SL1 - The Nitrates Action Programme (Amendment) Regulations (Northern Ireland) 2009 and had no objections to the proposal.

10. Forward Work Programme

Members noted the updated version of the Committee Forward Work Programme.

11. Consultations

Draft Sustainable Development Strategy:

Agreed: That a copy of the consultation document is sent to Northern Ireland Environment Link for comment.

Stage One consultation on the transposition of the revised Waste Framework Directive:

Agreed: That a copy of the synopsis of responses is requested.

Marine Strategy Framework Directive:

The Committee noted the documents.

12. Inquiry into Climate Change update – closed session

Agreed: That the session on Climate Change update would be deferred due to time constraints.

13. Correspondence

1. Departmental response to the Culture Arts and Leisure Committee request for further information regarding Departmental revenue from proceeds of crime.

Agreed: That the response is forwarded to Culture, Arts and Leisure Committee.

2. Members noted Prof Barnett's report, Independent Review of Economic Development Policy in NI.

Members noted the following invitations:

Northern Ireland Government Affairs Group, 10th Birthday Drinks Reception

Public Service Events, Project and Programme Management 2009 – Delivering Best Practice

The Chairperson informed members she would be speaking on behalf of the Committee at the Developing Northern Ireland's Waste Infrastructure Conference at the Stormont Hotel on Tuesday 20 October.

Members noted the following media items:

"DARD Chair meets Minister on Planning Policy"

"Met Office warns of catastrophic global warming in our lifetimes"

"Stormont to appoint sustainability tsar"

10. Any other business

11. Date, time and place of next meeting

The next meeting will be held on Tuesday, 13 October 2009 at 12.45p.m. The next regular meeting will be held on Thursday 15 October 2009 at 10.00a.m.

The Chairperson adjourned the meeting at 1.11p.m.

Dolores Kelly
Chairperson, Committee for the Environment
15 October 2009

Thursday 15 October 2009, Room 144, Parliament Buildings

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr John Dallat
Mr David Ford
Mrs Dolores Kelly (Chairperson)
Mr Danny Kinahan
Mr Ian McCrea
Mr Adrian McQuillan
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mr Nathan McVeigh (Clerical Supervisor)
Mr Steven Mealey (Clerical Officer)
Dr Kevin Pelan (Assembly Research)

Apologies:

The meeting began in public session at 10.02 a.m.

1. Apologies

There were no apologies.

2. Minutes

The minutes of the meeting on 8 October were agreed. The minutes of the meeting on 13 October were agreed subject to a minor amendment.

3. Chairperson's business

The Chairperson informed members they had been provided with a note of a meeting she had held with Community Places.

The Chairperson further informed members that she had met with representatives of the Energy Savings Trust on Tuesday 13 October and members would be provided with a note of this meeting at the meeting on 22 October. The Chairperson informed members that energy saving week would begin week commencing 19 October.

Agreed: That the Chairperson publicises energy saving week on behalf of the Committee.

4. Matters arising

DOE reply regarding Efficiency Delivery Plan:

The Chairperson informed members that they had been provided with a Departmental reply to the Committee's request for a copy of the Department's Efficiency Delivery Plan along with an indication on how it is progressing to date.

Agreed: That a letter is sent to the Department asking for information on how the Department will address the pressures on the plan since the outcome of the September Monitoring Round.

DOE reply regarding Procurement Methods used by local government divisions:

The Chairperson informed members that they had been provided with a Departmental reply to the Committee's query on procurement methods used by local government divisions to appoint consultants or agencies.

Agreed: That a letter is sent to the Department expressing Committee concerns around the difficulties of new smaller firms getting on to the select tender list.

Agreed: That a letter is sent to the Finance and Personnel Committee asking for more details on their inquiry into procurement.

Agreed: That the Chairperson raises the Committee's concerns at the next Chairperson Liaison Group meeting.

Mr McCrea joined the meeting at 10.12a.m.

DOE reply to Committee query on Consultation on the definition of "Significant Personal Injury" under the 5th Motor Insurance Directive (2005/14/EC):

The Chairperson informed members that they had been provided with a Departmental reply to the Committee's request for a list of the targeted groups referred to in the consultation on the definition of "Significant Personal Injury" under the 5th Motor Insurance Directive.

Ministerial reply regarding defective drafting of Statutory Rules:

The Chairperson informed members that they had been provided with a Ministerial reply to the Committee's concerns around the defective drafting of Statutory Rules.

PSNI response to Committee query on enforcement of the Taxis Act:

The Chairperson informed members that they had been provided with a reply from the PSNI to the Committee's query on their role in enforcing the Taxis Act.

Carbon Reduction Commitment:

The Chairperson informed members that they had been provided, in confidence, with papers in relation to policy decisions relating to the Carbon Reduction Commitment.

Agreed: That Departmental officials brief the Committee on this issue at a future meeting.

5. Local Government (Miscellaneous Provisions) Bill –consideration of draft Committee report

The following members declared an interest:

Dolores Kelly – Member of Craigavon Borough Council

Roy Beggs – Member of Carrickfergus Borough Council

Danny Kinahan – Member of Antrim Borough Council, substitute of South Antrim council on Arc21

Peter Weir – Member of North Down Borough Council, Vice President NILGA, member of Policy Development Panel A

Ian McCrea – Member of Cookstown Borough Council

David Ford – Member of Antrim Borough Council

Mr Adrian McQuillan – Coleraine Borough Council

Mr John Dallat - Member of Coleraine Borough Council

The Chairperson informed members they had been provided with a copy of the draft Committee report for agreement.

Agreed: That the Committee is content with the Executive summary.

Agreed: That the Committee is content with the Recommendations.

Agreed: That the Committee is content with the Introduction.

Agreed: That the Committee is content with the Consideration of the Bill by the Committee.

Agreed: That the Committee is content with the Key issues

Agreed: That the Committee is content with the Clause by clause consideration of the Bill.

Agreed: That the Committee is content with Appendix 1 - Minutes of Proceedings relating to the report.

Agreed: That the Committee is content with Appendix 2 - Minutes of Evidence relating to the report.

Agreed: That the Committee is content with Appendix 3 - Written Submissions?

Agreed: That the Committee is content with Appendix 4 - List of Witnesses?

Agreed: That the Committee is content with Appendix 5 - Other papers submitted to the Committee.

Agreed: That the report is printed.

Agreed: That the minutes, and minutes of evidence, from the meeting on 15 October are incorporated into the final report.

6. Departmental briefing on the Waste Bill – synopsis of responses

The following members declared an interest:

Dolores Kelly – Member of Craigavon Borough Council

Roy Beggs – Member of Carrickfergus Borough Council and small landowner

Danny Kinahan – Member of Antrim Borough Council, substitute of South Antrim council on Arc21

Peter Weir – Member of North Down Borough Council, Vice President NILGA, member of Policy Development Panel A

Ian McCrea – Member of Cookstown Borough Council

David Ford – Member of Antrim Borough Council

Mr Adrian McQuillan – Coleraine Borough Council

Mr John Dallat - Member of Coleraine Borough Council

Departmental officials briefed the Committee and answered members on the synopsis of responses to the Waste Bill consultation.

The main areas of discussion were a single waste disposal authority, appeals, illegal dumping, the timetable for the Bill and waste contracts.

7. Briefing by Northern Ireland Environment Link on their report – The Way Ahead 2009

Representatives from Northern Ireland Environment Link briefed the Committee and answered members on their report – The Way Ahead 2009.

The main areas of discussion were the Sustainable Development Strategy, planning reform and third party right of appeal, climate change, PPS21 and sustainable transport.

Mr Ford left the meeting at 11.12a.m.

Agreed: That NIEL forwards copies of the reports mentioned during the discussion.

8. Statutory Rule

S.R. 2009/336 – The Motor Vehicles (Construction and Use) (Amendment) Regulations (NI) 2009

Question put and agreed:

That the Committee for the Environment has considered S.R. 2009/336 – The Motor Vehicles (Construction and Use) (Amendment) Regulations (NI) 2009 and has no objection to the rule.

9. SL1 - Contracts regulations to be made under the local government (miscellaneous provisions) bill

Members considered the SL1 - Contracts regulations to be made under the local government (miscellaneous provisions) bill and had no objections to the proposal.

10. Forward Work Programme

Members noted the updated version of the Committee Forward Work Programme and were reminded that the meeting on 22 October would take place in Derrygonnelly Field Studies Centre, Fermanagh.

11. Consultations

Permitted Development Rights consultation paper and consultant report:

Agreed: That a copy of the synopsis of responses is requested from the Department and that a letter is sent to the Department stating that the Committee would like to see the introduction of permitted development rights for non domestic small scale renewable energy development and microgeneration prior to 2011.

Mr Ross left the meeting at 11.30a.m.

DETI consultation on a bioenergy action plan for Northern Ireland 2009 – 2014:

Agreed: That the Committee Clerk drafts a response to the consultation for consideration at the meeting on 22 October.

DOE letter re consultation document on proposals for a future Exemptions regime under the Radioactive Substances Act 1993:

Agreed: That the Committee awaits a copy of the synopsis of responses before further consideration of the issue.

12. Correspondence

1. Letter from Department of Enterprise Trade and Investment regarding the Independent Review of Economic Policy (DETI and Invest NI).

Agreed: That this issue is considered further at the meeting on 22 October.

2. Analysis of sickness absence in NI Departments – 2008/09 (Executive Summary).

Agreed: That a letter is sent to the Department asking for more information on the measures it is taking to reduce absence levels.

3. Monitoring of Departmental Post Project Evaluations.

Agreed: That a letter is sent to the Department asking about progress on the outstanding three post project evaluations.

4. Members noted information on the issues discussed at the meeting of the Chairpersons' Liaison Group on 22 September 2009.

5. Members noted a briefing note from Environmental Protection UK October 2009.

6. Members noted a letter from the Utility Regulator regarding the draft determination summary document.

7. Members noted a letter from NILGOSC regarding the Local Government reform Joint Forum, Model Terms of Reference and Operating Arrangements for Local Consultation and Negotiation Forums at Transition Committee Level.

8. Members noted a letter from NI Audit Office regarding a report to the Assembly on the performance of the NI Planning System.

Members noted the following invitations:

Sustainable Development UK 2010 Conference - "Transition to a Low Carbon Economy".

The National Trust, "A Giant Walk".

Environmental protection UK, "Managing Closed Landfills: From Problem to Solution"

Environmental protection UK, "Nitrogen Dioxide: Time for Compliance"

Environmental protection UK, "UK Dispersion Model users Group Meeting 2009"

Members noted the following media items:

"Greens call for a halt to Lough Neagh incinerator"

"National parks must balance the needs of people and environment"

"Gearing up for expanding renewable energy market"

"Incinerator decision is likely soon – Poots"

Members noted the following DOE press releases:

Minister announces funding for Glenarm Regeneration Project

Farmer fined £3,500 for pollution offence

New rules announced on exchange of driving licences

14. Any other business

15. Date, time and place of next meeting

The next meeting will be held on Thursday 22 October 2009 in Derrygonnelly Field Studies Centre, Fermanagh, at 10.30a.m.

The Chairperson adjourned the meeting at 11.40p.m. and informed members that the meeting would now move into closed session for further consideration of the Committee's climate change inquiry report.

16. Consideration of draft climate change report

The following members were present for consideration of the draft climate change report:

Dolores Kelly, Cathal Boylan, John Dallat, Danny Kinahan, Ian McCrea, Adrian McQuillan, Peter Weir

The Committee was briefed by a member of Research on his paper 'Climate Change Obligations'.

Members then deliberated on the conclusions and recommendations in the draft report.

Dolores Kelly
Chairperson, Committee for the Environment
22 October 2009

Monday 23 November 2009, Room 144, Parliament Buildings

Present: Mr Roy Beggs
Mr Cathal Boylan (Deputy Chairperson)
Mr David Ford
Mr Danny Kinahan
Mr Alastair Ross
Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mr Nathan McVeigh (Clerical Supervisor)
Ms Antoinette Bowen (Clerical Officer)

Apologies:

The meeting began in closed session at 1.08p.m. to allow members to consider, and finalise, the draft Committee inquiry report into climate change

1. Consideration of draft Committee inquiry report into climate change

The Deputy Chairperson informed members they had been provided with a draft copy of the inquiry report, a list of the appendices and a motion to the Business Office.

The Deputy Chairperson further informed members that the Clerk would take members through each Chapter and sub-section of the main report to seek Committee agreement.

Agreed: That the Committee is content with the Membership and powers.

Agreed: That the Committee is content with the Table of contents.

Agreed: That the Committee is content with the Executive Summary.

Agreed: That the Committee is content with the Summary of Recommendations.

Agreed: That the Committee is content with Chapter 1.

Agreed: That the Committee is content with Chapter 2.

Agreed: That the Committee is content with Chapter 3.

Agreed: That the Committee is content with Chapter 4.

Agreed: That the Committee is content with Chapter 5.

Agreed: That the Committee is content with Chapter 6.

Agreed: That the Committee is content with Chapter 7.

Agreed: That the Committee is content with Chapter 8.

Agreed: That the Committee is content with Chapter 9.

Agreed: That the Committee is content with Chapter 10.

Agreed: That the Committee is content with Chapter 11.

Agreed: That the Committee is content with Appendix 1 - Minutes of Proceedings.

Agreed: That the Committee is content with Appendix 1 - Minutes of Evidence.

Agreed: That the Committee is content with Appendix 1 - Written Submissions.

Agreed: That the Committee is content with Appendix 1 List of Witnesses.

Agreed: That the Committee is content with Appendix 1 Other papers submitted to the Committee.

Agreed: That the Committee is content with Appendix 1 List of abbreviations used in the report.

Agreed: That the report is printed.

Agreed: That the minutes from the meeting on 23 November are incorporated into the final report.

Agreed: That members are content for the motion to be lodged with the Business Office.

Agreed: That members are content that the Department has prior sight of the report to enable the Minister to make a reasoned response at the debate on 7 December.

The Deputy Chairperson adjourned the meeting at 1.54p.m.

Cathal Boylan
Deputy Chairperson, Committee for the Environment

23 November 2009

Appendix 2

Minutes of Evidence

7 May 2009

Members present for all or part of the proceedings:

Mr Patsy McGlone (Chairperson)
Mr Cathal Boylan (Deputy Chairperson)
Mr Roy Beggs
Mr Trevor Clarke
Mr David Ford
Mr David McClarty
Mr Ian McCrea

Witnesses:

Mr Mike Thompson	Committee on Climate Change
Ms Katherine White	
Mr James Dillon	Sustainable Development Commission Northern Ireland
Mr Jim Kitchen	
Mr Alex Hill	Met Office
Professor John Mitchell	
Ms Frances McCandless	Northern Ireland Council for Voluntary Action
Mr Keith Brown	
Mr Brendan Forde	Department of the Environment
Mr Stephen Peover	

1. The Chairperson (Mr McGlone): We move to the Committee's inquiry into climate change. The first set of witnesses represents the Committee on Climate Change (CCC). I welcome Mr Mike Thompson and Ms Katherine White. Perhaps you could give us an overview of your submission, and then we will take questions from members on any points that require clarification or expansion. Please proceed with your evidence.

2. Mr Mike Thompson (Committee on Climate Change): Thank you. It is a pleasure to be here. Members should have received a pack of slides that we submitted. It will be helpful to follow those as we present the evidence.

3. The Chairperson: Can we check that members have those?

4. Ms White (Committee on Climate Change): The slides are in addition to our written submission, and give an overview of the Committee on Climate Change's recommendations in the report that we published in December 2008.

5. Mr Thompson: We will not cover the full report, but we will pick out highlights that are relevant to the Committee's inquiry, and that complement the written submission. The Climate Change Act 2008 set up the Committee on Climate Change to advise on three specified areas: the setting of carbon budgets; how to meet those carbon budgets; and monitoring progress against meeting those. The slides cover the three areas in that order.

6. The first slide lists the CCC's recommendations from our December report. Under the Act, we were asked to advise on a variety of issues based on our assessment of the science and the UK's international commitments, and taking into account the technical and economic feasibility of

different levels of targets. The first target is for 2050, and is for an 80% reduction in the UK's emissions of greenhouse gases, relative to the situation pertaining in 1990. Since the climate impacts of greenhouse gases apply to all gases, and to emissions from all sectors, that target should apply to all gases and emissions from all sectors, including emissions from international aviation and shipping. An 80% reduction is seen as a suitable UK contribution to a global deal to reduce emissions by 50% by 2050.

7. It is key for the CCC that such a global deal be achieved as soon as possible. However, we recognise that such a deal does not currently exist. Therefore, for the interim period, we have proposed an intended budget, running until 2022, for when such a deal is in place. When a deal is in place, the intended budget equates to a 42% reduction in greenhouse gas emissions below 1990 levels by 2020. That is 31% below 2005 levels. That can be met through a combination of emissions reductions domestically, and through purchasing credits for emissions reductions abroad. Until such a deal is in place, we should be prepared to move to the intended budget, and therefore be on track for our 2050 target.

8. However, just as the EU has a 20% target, pending a global deal, so too should the UK have an interim budget. That is the budget that the UK Government have accepted, and legislated for in the recent financial statement. That budget is for a 34% reduction in greenhouse gases, against 1990 levels, by 2020. That is a 21% reduction against 2005 levels. As it is key that the UK be on track to meet those long-term targets, the use of credits in meeting that reduction should be very strictly limited. Those are the recommendations that the CCC has put forward. The 80% target has now been legislated for by the UK Government, as has the interim budget.

9. The next slide deals with how those budgets can be met. Looking ahead to 2050, the key is to start by decarbonising the power sector, namely the generation of electricity. There are three key technologies that we can use to do that: renewable technologies, such as wind, marine, and bioenergy; nuclear; and, in the longer term, carbon capture and storage.

10. Once that has been achieved, or as that is increasingly achieved, we can roll out the use of power to sectors that are a little harder to decarbonise, and in which such technologies are not so readily available. Those are principally heat and transport. I have more detail on what we can do in those sectors, but we will move on to what we can do to meet the budgets until 2022. The Climate Change Act 2008 did not require the Committee on Climate Change to propose sectoral targets; rather, it required a budget for the UK economy as a whole. It is important that proposed targets be feasible and achievable. To assess that achievability, we have analysed how the budgets might be met across the various sectors and where abatement could come from.

11. The Committee has proposed three key criteria for assessing where that abatement action should happen. Those are the measures required on the path to 2050 to achieve long-term decarbonisation. They must be pursued, even though they are, in the short term, expensive. Measures must be pursued in areas where practical constraints are overcome and where abatement is definitely deliverable. Measures should be pursued in a way that minimises costs, so that the cheapest abatement measures should be picked up first.

12. Accounting for those three criteria, what options does that lead us to? In power generation, and in the absence of nuclear power and carbon capture-and-storage in the short term, renewables is a particularly attractive option, and we can also reduce coal-burning in the power sector.

13. In energy use, there is an opportunity to reduce demand through energy efficiency, particularly in buildings and behaviour change, which involves people turning down thermostats, switching out lights, and so on. In the longer term, there are opportunities in renewable heat

through the use of biomass and biogas in heating and in microgeneration to provide both electricity and heating.

14. In transport, there should be moves towards improved fuel efficiency; that is, a move towards a vehicle fleet that uses less fuel per kilometre and therefore emits less CO₂. Towards the end of the budget period at 2020, there should be increased hybridisation of vehicles, an increased roll-out of electric vehicles and, in the longer budget term, there can be increased use of biofuels within sustainability criteria. Our guide to that is set out in the Gallagher review of the indirect effects of biofuels production.

15. There are also opportunities in transport for behaviour change. Smarter choices could be made, including increased use of public transport and eco-driving. The Committee also looked at opportunities to reduce non-CO₂ gasses. We focused on agriculture and waste, in which there are opportunities to reduce nitrous oxide and methane emissions, which are also in the Kyoto basket of greenhouse gases.

16. In order to achieve those abatement measures, current policies and current policy intent are, according to our analysis, sufficient to deliver the interim budget. However, there is significant opportunity for policy strengthening, and that will be required to deliver the policy intent as stated. Use of renewables, improving fuel efficiency in vehicles, and many of the measures that were announced in the energy White Paper 2007 are required to deliver on that policy intent. Those measures must address both financial and non-financial barriers.

17. The costs of meeting the intended budget — the 42% reduction by 2020, on the way to meeting the 80% reduction by 2050 — are as follows. The headlines are that the costs of meeting the 2050 target will amount to 1% to 2% of UK gross domestic product (GDP), and a comparable cost globally. For meeting the 2020 target, the costs are lower: we estimate them to be less than 1% of GDP. There are also possible growth opportunities in various low-carbon sectors that are not allowed for in those GDP assumptions.

18. Where will that 1% come from? Essentially, there is a resource cost associated with moving to a low-carbon economy. To produce the same energy services with a lower carbon output entails higher costs in most cases. We have simply added up those costs and taken them as a proportion of GDP. The costs come mainly from electricity decarbonisation. Building wind turbines to generate electricity will be more expensive than burning coal, so that will come as a cost to the economy.

19. In other sectors — buildings, industry and transport — the savings that we make from energy-efficiency measures will roughly offset the more expensive measures required elsewhere in the sectors. Finally, the purchase of emissions credits in the EU emissions-trading scheme and of clean development mechanism (CDM) credits that will be required to meet the intended budget will come at a cost to the UK. Those funds will flow out of the country. That gives a total resource cost of about 0.3% of GDP.

20. There are a range of possible knock-on impacts of that as it works through the economy. We use a range of models to simulate that possible range. There is no consensus on which is likely to be the right model, so we report the full range, which is at a cost 0.3% to 0.8%, hence the headline figure of a less than 1% impact on GDP. The Committee on Climate Change has said that those costs are worth bearing, because they are less costly than what we think the impacts of climate change would be if climate change continues unmitigated.

21. The chart before the Committee illustrates high-level impacts of climate change. I do not propose to go into detail about that chart, which was taken directly from a recent Intergovernmental Panel on Climate Change (IPCC) report. The headline message is that as

temperatures increase, so do damage costs, and there will possibly be sudden changes. The worldwide distribution of those impacts will be uneven. Their size will depend on a lot of scientific uncertainty about which we do not know, and on a lot of socio-economic uncertainty with regard to the response to physical impacts.

22. Therefore, the committee has not tried to put a value on those in pounds or percentage of GDP. In the committee's judgement, however, the costs of unmitigated climate change are significantly higher than the costs of mitigating climate change.

23. That is, essentially, the committee's analysis at the UK level. For Northern Ireland, we have carried out a high-level top-down disaggregation of that analysis, accounting for differences in economic structure, population projections and transport patterns. That shows that Northern Ireland has, potentially, an opportunity to reduce carbon dioxide emissions by about two million tons. That is in the context of current emissions of about 22 million tons. That abatement potential is split across the various sectors in which emissions occur.

24. There is, relative to the UK, a slightly higher proportion of emissions from road transport and agriculture, which reflects the higher size of those sectors in Northern Ireland. The building sector has the largest abatement potential. Therefore, energy efficiency in Northern Ireland would be particularly important.

25. Many of the levers for unlocking those potential abatements will be reserved policies from the UK Government and the EU emissions trading scheme. However, there will be a significant need for devolved policy measures, too, particularly the promotion of energy efficiency in buildings and industry, development of a policy framework for microgeneration technologies, and a policy framework for agriculture and land use that focuses on climate change. There are also opportunities for supporting renewable energy sources in the power sector, and in supporting planning for low-carbon investments. Those eco-policy priorities are, essentially, for the entirety of the UK, but they allow for the different levels of responsibility that are devolved and reserved.

26. That, in essence, is our report from last year, and the advice that we have given. According to the Climate Change Act 2008, the Committee on Climate Change will this year provide its first annual progress report, which is due in September. So far, however, there is not a lot of progress to report with regard to emissions in the first budget period. Emissions data will not be available until next year.

27. The report will assess the Government's carbon budgets and the strategies that have been put in place to meet them. That will provide a framework for future monitoring by specifying a set of progress indicators, and it will identify policy priorities for Governments in meeting the targets.

28. The indicators are the key to the report, and they were discussed in the committee's written submission. They are based on a four-level hierarchy. The top level is emissions at a sectoral level; the second level is what drives those emissions, namely the level of energy demand and the carbon intensity of the energy supply; and the third level is the abatement actions that need to be rolled out in order to bring about changes in carbon intensity and energy demand such as investments in low-carbon technologies such as wind turbines and loft insulation, in infrastructure such as building off-shore grids for wind, and in rolling out charging points for electric vehicles.

29. Finally, the bottom layer that underpins all that are the policy requirements — to imply from what the Government are currently doing what is required to happen in order to meet the indicators. From that, we will create policy advice for all Governments.

30. The report will also include details on current issues, and those will follow on from our analysis last year. One such current issue is the impact of the credit crunch, on which we will comment later. Another is how to manage the power sector with increasing intermittent generation from wind. A third issue is how to tackle fuel poverty. Finally, we will address the demand for choices in transport, which our first report did not cover in detail.

31. Mr Beggs: Thank you for your most helpful presentation. You mentioned the cost of moving to a low-carbon economy. However, you did not refer to the fact that many people believe that we have already reached the peak oil level, and that considerable market pressures will lead to increased oil and gas costs. The supply of gas from Siberia could be at risk because of the unstable Governments in that region. I am curious about why you did not mention the cost of not moving to a low-carbon economy. Have you calculated that cost? I accept that there would be a cost in moving to a low-carbon economy. Equally, however, there would be a significant future cost in not doing so.

32. Mr Thompson: The figures that we presented to the Committee set the cost of moving to a low-carbon economy against the cost of not doing so. The costs are based on an assumption by the UK's Department of Energy and Climate Change (DECC) that the price of fossil fuels will increase to a level higher even than in 2008. The price, therefore, will be higher than at present. The analysis suggests that even taking into account higher oil prices and, consequently, higher gas prices, the move to a low-carbon economy will still incur a cost.

33. If the price of fossil fuel were to rise beyond those projections, the cost of moving to a low-carbon economy would decrease. An ancillary benefit of moving to a low-carbon economy would be a decreased reliance on imported oil and gas, which brings with it the benefits of having a secure energy supply.

34. Mr Beggs: You said that one of the biggest contributions that Northern Ireland could make was to reduce heating costs. If my memory serves me right, we are already significantly improving the insulation levels in buildings. Given that it is expensive to make retrospective changes to buildings, it is much better to introduce any improvements at an early stage. Will any improvements, beyond those that have been mentioned, be required in the next five to 10 years? Will we have to move any faster than outlined in the current timescale, which largely follows the GB model?

35. Mr Thompson: Energy efficiency in all buildings across the UK is improving. Opportunities probably exist to go further than that. The precise balance will come down to the exact cost and how easy it is to persuade homeowners and owners of commercial buildings to respond to the policy of increasing energy efficiency. Even measures that appear costly upfront may be less costly than other decarbonisation measures. I am not sure of the exact balance of the current policy. However, as far as energy efficiency is concerned, the more, the better.

36. The Chairperson: Is the consensus that the cost of doing nothing would be higher than the cost of prevention?

37. Mr Thompson: Do you mean the cost of allowing climate change to happen?

38. The Chairperson: Yes. I am talking about the economic, seasonal and human costs involved.

39. Mr Thompson: The Committee has not tried to calculate the cost as a percentage of GDP. It would be reasonable to judge that the cost of doing nothing would be greater than the 1% to 2% of GDP that action would require.

40. Mr T Clarke: Are you saying that doing nothing at all would cost a greater percentage of GDP, despite not having analysed the cost?

41. Mr Thompson: The costs of doing nothing as regards the impact on the climate are not straightforward to express in GDP terms, in the way that we can say that it costs more to use wind to generate electricity than it costs to burn coal. It is hard to say what the impact of changing crop patterns and changing weather patterns throughout the globe will have on UK GDP.

42. Mr T Clarke: I want to know, for the record, whether you can say that the impact will have a greater or lesser cost.

43. Mr Thompson: We are talking about different impacts. A direct comparison in that way is difficult, which is why the Committee has not tried to compare them in that way.

44. Mr T Clarke: Is it to do with costs? I am drawing on the Chairperson's question.

45. The Chairperson: The Committee has information before it today that refers to the Stern Report. The comparators included in that report say that the cost of doing nothing could cost us around 3% to 5% of GDP. That is what I was trying to tease out.

46. Mr Thompson: The Stern Report took a different tack, in that it attempted to quantify, in money terms, the size of the impacts that the science dictates as regards human welfare, ecosystems and so on. The view of the Committee on Climate Change was that expressing that in monetary terms was not necessary. It is a reasonable judgement to say that the cost to GDP of 1% to 2% for mitigating climate change is clearly worth paying if we look at the impacts alone, without trying to put a direct GDP number on that. The Stern Report stated clearly that mitigating climate change is cheaper than not mitigating climate change.

47. Mr T Clarke: I have a problem with how that figure was reached if a study has not been carried out to find out whether it will be more cost effective to do something about climate change as opposed to doing nothing. I do not think that it is fair to say that it is cheaper to do something.

48. Mr Thompson: It is not to say that it is cheaper; it is to say that it is a cost that the CCC believes is worth paying. That is a judgement based on our reading of the science and our reading of the impacts, and a judgement of how much is worth paying for those costs. We believe that it is worth paying more than 1% to 2% of GDP.

49. Mr T Clarke: There has been no cost analysis done on the difference between doing nothing and doing something. You are saying clearly that that has not been done. That is what I was looking for.

50. Mr Ford: The likes of the Stern Report has carried out that costing. The Committee does not need to reiterate anything that Stern has done.

51. The Chairperson: You cannot respond on the Stern Report, but I presume that you are acquainted with its findings, which would inform some, if not all, of what you are doing at the moment anyway.

52. Mr Thompson: Our report has built on the Stern Report, which came well before our report. We did not consider it necessary to repeat the findings of the Stern Report, which said that if we express those in GDP terms, the cost of action is lower than the cost of inaction. The line that

we are trying to go with in the report is that there is a cost in money terms — in GDP terms — to the UK economy and to any economy that pursues climate change mitigation action. That cost is worth paying against the impacts of climate change if we do nothing.

53. Mr Boylan: I want to talk about the issue of renewables. You have set out a budget, but the problem — probably for all the devolved Governments — will be the implementation of any planning policies. I am talking specifically about the renewables in the North. How will you impact on that and ensure that it is deliverable? We have gone through PPS 18, which deals with renewables, and we will not achieve those targets in reality if we do not look at renewables. We will sit here and talk about it, and it is nice to hear a report. However, in reality, is it the carrot-and-stick approach, is it all stick, or are there any incentives? Have you looked into that aspect, and how do we address that issue?

54. Mr Thompson: The Committee's role is to monitor Government progress in meeting carbon budgets. Whether precise renewables targets are met is, in itself, not an issue for the Committee. What is an issue is that in proposing how carbon budgets could be met, we have said that renewables are a very important part of that. As a result of that, yes, the Committee has an interest in whether renewables are being rolled out at the level that we think needs to be achieved.

55. In our December report, we did not specify what level that needs to be. We proposed two scenarios: one in which the level of renewables reached the target; another in which there was a lower level of renewables, but with nuclear builds to fill the gap. In September, we will set out a much more detailed timeline. As part of the hierarchy of indicators, the September report will set out a scenario for how many gigawatts of installed capacity of onshore and offshore wind should be seen each year until 2022. As part of that, we will have to identify, much more specifically than in the first report, where the sites are for that to possibly happen. We will not define which of those sites definitely need to go forward; however, it will be made clear that a large proportion of them will.

56. When it comes to what is required to bring that forward, in many senses, it is over to the Governments. It is not for the Committee on Climate Change to say what specifically needs to be done, but it is for us to say that something needs to be done. So far, we have said that we need financial support and non-financial support. Financially, the mechanism is the renewables obligation, and that needs to be strengthened to reach the levels of renewables that have been proposed. Non-financial support means removing the barriers on planning and transmission access. At the moment, we have not gone into those issues in any more detail. However, we may do in September.

57. Mr Ford: Procedurally, under the Climate Change Act 2008, your set-up gives you a responsibility to the Government. How do you apply that to the three devolved Governments in the UK?

58. Mr Thompson: Essentially, our responsibilities are applied by following what is set out in the Act. That requires us to provide advice to the UK Government, to publish advice on the basis of what the targets ought to be at a UK level, how those targets can be met, and what progress has been made to meet those. The legislation requires us to do that with reference to the different circumstances in England, Scotland, Wales and Northern Ireland. Our first report was very much focused on the UK as a whole. However, we looked at how the impacts of meeting the budgets could differ among the devolved Administrations, and at how the abatement potentials may differ.

59. Going forward, there is a clause within the Bill that allows each of the devolved Administrations, and the UK Government, to make ad hoc requests for advice from the

Committee. If and when those requests are received, there is a mechanism in place, through the sponsor group, which allows those requests to be considered, resourced and negotiated.

60. Mr Ford: At this stage, I take it that you have not received any specific requests from the Northern Ireland Administration?

61. Ms White: No.

62. The Chairperson: It is important for the Committee to learn what level of contact and collaboration the CCC has with each of the devolved institutions. Obviously, that is a big issue for the regional Governments. Can you tell us how that works? I am learning a lot from you today, and it is great to have you with us. Can you explain to us whether that mechanism has to rely exclusively on a request from the Department, or can you initiate contact? What is your current method of collaboration with our Department of the Environment, or indeed the wider Executive, which has the responsibility for climate change, be that through sustainability or otherwise?

63. Mr Thompson: The mechanism that I described is a formal request for specific advice from the CCC. Outside that, there are ongoing working arrangements between the secretariat of the committee, the various bodies in the UK, DECC, and the environment Departments of the devolved Administrations. We have regular contact with the Northern Ireland Department of the Environment; we meet every month or every six weeks. We use that as an opportunity to share information and analysis, and we generally have a co-operative relationship with what is being done at a working level.

64. Ms White: In addition to the specific ad hoc requests, we have an ongoing work programme that relates to the devolved Administrations. This year's progress report will look at aspects of recent trends in respect of emissions relating to Wales, Scotland and Northern Ireland. It will consider where we expect a strengthening of the policy framework to deliver the carbon budgets and where the levers for those policies should lie — whether they are to be reserved or devolved. An ongoing work stream relates to Wales, Scotland and Northern Ireland so that aspects relating to them do not have to be solely reliant on ad hoc requests through the official channels.

65. The Chairperson: Is that done on an ad hoc basis, rather than a formalised structure?

66. Ms White: Ongoing work is carried out, and the devolved Administrations can make formal requests. The regular contact that we have with the Department of the Environment in Northern Ireland relates to that ongoing work stream and the sharing of information that supports that.

67. The Chairperson: Do the devolved Administrations seek your advice and guidance on targets?

68. Ms White: They can; the Act contains provisions such that any of the national authorities can make requests for advice and information from the CCC relating to any targets that they set nationally and for their contribution to the UK's carbon budgets.

69. Mr Ford: Your evidence on the scenarios that are required to meet the carbon budgets identifies some of the key issues. However, it does not prioritise those scenarios. Turning off unnecessary lights is an extremely effective action; there is a zero cost per ton saved, even if the number of tons saved is fairly small. Have you done work to specifically set out how much cost is saved per ton across the areas of power generation, energy use, transport and non-CO2 issues?

70. Mr Thompson: Yes, we have done exactly that. The four sectors have a chapter each in our December report. Each chapter sets out emissions in those sectors, what we expect them to be in the future in a business-as-usual situation, and what the opportunities are for reducing those emissions. Those opportunities are presented based on how much carbon they can save and how much it will cost per ton of carbon that is saved. That analysis, which is at a UK level, is set out in quite a lot of detail in our December report.

71. Mr Ford: The analysis is at a UK level. Do you intend to extend that work?

72. Mr Thompson: We have extended it in that, based on the UK level, we have decided what the likely devolved level is. Given the data constraints, it would be difficult to extend beyond that to a similar bottom-up type of analysis at a devolved level. There is much more data at a UK level than there is for any of the devolved Administrations. Under our current plan, there is no intention to look at the devolved institutions in further detail.

73. Mr Ford: On the issue of power generation, what specific work has the committee done on issues such as the proportion that it is reasonable to expect for renewables, both on the 2020 and the 2050 level, allowing for factors such as the intermittency of wind? How far have you gone beyond the issue of wind into areas such as marine generation? Similarly, what assessment has been done of the short-term viability of carbon capture and storage (CCS), which seems to be held up as the long-term panacea? I see nothing in the long term for that.

74. Mr Thompson: We will provide more detail on all of those issues in September, particularly the intermittency of wind, which is a big issue. That is particularly important in respect of the 2020 targets. The committee sees nuclear energy as important, alongside wind energy. Nuclear is a non-flexible energy source, so intermittency becomes more of a problem when there is more nuclear energy. We will look at the 2020 targets to see what the opportunity is for those to co-exist and how the market may need to be structured in that scenario. That work is not yet complete so I cannot give you any more details; however, we will report further in September.

75. In the December report, we drew mainly on the existing documents that were published alongside the UK Government's renewable energy strategy, and particularly on a report by the consultants Sinclair Knight Merz (SKM). That report indicated that a level of wind penetration is quite likely and that nuclear would struggle to coexist in the power sector alongside a 32% roll-out of renewables. We are looking at that in more detail and may come to a different conclusion in September.

76. Marine energy is an important technology in our scenarios. At the moment, it is hard to define exactly how important that will be because it is a relatively young technology. It presents opportunities for learning and costs to come down. However, it will raise issues around planning consents and what can be rolled out. We have not defined precisely what will be required, but marine energy will have a role to play.

77. Carbon capture and storage will be an important technology in the longer term. Action needs to be taken to get to that, because it is not currently available. Beyond that, we did not say a great deal on that matter in the December report. Some projects are under way now that are looking at CCS in more detail. We will say more in September.

78. The Chairperson: September will be pretty important to us all then.

79. Mr T Clarke: I missed what you said about how important nuclear power is in respect of the overall target.

80. Mr Thompson: Nuclear power will probably play a fairly small role in the budgets up to 2022, because of the long lead-in times for building a nuclear plant. Even in the most ambitious scenario, it is hard to imagine a nuclear plant appearing before 2018. Beyond that, nuclear power is one of three key technologies for decarbonising the power sector. Keeping all three of those technologies on the table is the cheapest way to achieve that abatement. Therefore, we see it as an important technology for the longer term.

81. Mr T Clarke: By "longer term" do you mean reaching that target of 28% by 2050?

82. Mr Thompson: From 2020 to 2030, and from 2030 to 2050, nuclear power will have an important role to play.

83. Mr T Clarke: Surely, if we are buying into nuclear power at this stage, we cannot shirk our responsibility and should be looking at it seriously. Is that what you are saying?

84. Mr Thompson: Absolutely. Actions need to be taken now so that there are nuclear plants in 2020. In September, we will set out what those actions need to be.

85. Mr T Clarke: Some people frown on the use of nuclear power. If we put off taking any action until 2022, some people in this room who have made noises about not wanting nuclear plants might not be that concerned then. I am glad to hear you say that we should take action now as opposed to 2022, when some of us might not be on this Committee. I support the idea.

86. Mr Boylan: Are you trying to make a political point, Mr Clarke?

87. Mr T Clarke: Never.

88. The Chairperson: Thank you, Mike and Katherine, for your contribution today. Needless to say, you are welcome to stay and listen to the other witnesses' contributions.

89. The Committee will now hear evidence from the Sustainable Development Commission Northern Ireland (SDCNI). Members should note that the Sustainable Development Commission (SDC) is the Government's independent advisory body on sustainable development. It reports directly to the Prime Minister and to the First Ministers of the devolved Administrations.

90. Committee members have been provided with a summary of the Sustainable Development Commission's submission to the Committee's inquiry into climate change and a copy of the specialist adviser's comments. Giving evidence are Mr Jim Kitchen, who is the head of SDCNI, and James Dillon, who is the commission's communications and engagement manager. You are very welcome.

91. Mr Kitchen, you have 10 to 15 minutes in which to give an overview of the commission's work. After that, members may want you to answer some questions or clarify a few points.

92. Mr Jim Kitchen (Sustainable Development Commission Northern Ireland): If you will indulge me, Chairman, I wish to congratulate David Ford on completing the Belfast marathon on Monday. That is a significant achievement that requires a great deal of preparation, which provides me with the perfect metaphor for climate change and what needs to be done to tackle it. David Ford will know that he put a great deal into preparing for the race, starting by running one or two miles, and, eventually, over weeks and months of training, got up to 26 miles.

93. That is precisely what we need to do to address climate change. The targets are set for 2025 and 2050, but we need to start preparing this year if we are to get to the finishing line. I will stretch the metaphor no further, but it is not a bad way —

94. Mr McClarty: The rest of us are still preparing.

95. Mr Kitchen: There is a bewildering array of climate-change targets. There is the EU 20-20-20 package, which sets out ambitious plans for a 20% cut in greenhouse gases, a 20% contribution from renewable energy, and a 20% cut in energy consumption — all to be achieved by 2020. There are the UK Government targets, which the Committee on Climate Change efficiently laid out, so I will not repeat them. In Northern Ireland, we have included targets in the Programme for Government and in the sustainable development strategy for Northern Ireland. Those existing commitments are that we must reduce greenhouse gases by 25% of 1990 levels by 2025 and produce 12% of our electricity from indigenous sources by 2012. We are also seeking for the Government estate to be carbon neutral by 2015. Other important, supportive steps are outlined in my written presentation.

96. Those are, without question, very challenging targets. Northern Ireland has a proportionate role to play in contributing to the UK and EU targets. During its inquiry, I am confident that the Committee will hear many other bodies express similar sentiments about what Northern Ireland's targets should be. I will not speculate on what decision the Committee will reach. We support the idea of rolling five-year carbon budgets. More importantly, however, it is necessary to set out the policies and proposals that will enable Northern Ireland to deliver those budgets. I have my doubts over whether such plans can be put in place in time for their incorporation into the next sustainable development implementation plan, but they must be ready in time for the next Programme for Government.

97. To achieve carbon budgets, almost every Department in Northern Ireland has some role to play in delivering actions to mitigate climate change or to help us to adapt to live with its effects. Climate change, like sustainable development, touches most aspects of our lives.

98. In Northern Ireland, the Department of the Environment (DOE) has responsibility for climate-change policy, biodiversity and land-use planning. The Department of Finance and Personnel (DFP) is responsible for procurement, which has a big impact, the Government estate and building regulations. The Department for Social Development (DSD) runs housing policy and urban regeneration. The Department of Agriculture and Rural Development (DARD) has responsibility for all rural policy, and incorporates Rivers Agency and Forest Service. The Department for Regional Development (DRD) is in charge of regional development and, importantly, the regional transportation strategy. The Office of the First Minister and deputy First Minister (OFMDFM) houses sustainable-development policy. However, when it comes to implications for climate change, the Department of Enterprise, Trade and Investment (DETI), which is responsible for energy and economic development, is probably the most important Department.

99. If we are serious about tackling climate change, it is energy that we must tackle first. Of the 22 million tons of carbon dioxide equivalent (CDE) that is emitted in Northern Ireland each year, 75% comes from energy use and 21% from agriculture. The Sustainable Development Commission believes that a strong case can be made for combining the responsibilities for energy policy and climate-change policy in a single Department. If that were done, it would likely provide the best opportunity for encouraging the move towards a low-carbon economy to develop our commercial innovation into a low-carbon future.

100. The private sector, with the assistance of organisations such as the Carbon Trust and Invest Northern Ireland, is already making fantastic progress in that regard. Yesterday, I had the

privilege of judging the environment section of this year's Business in the Community awards for the private sector. Some of the entrants provided proof of Northern Ireland's excellence in that field. For example, the drinks company Diageo has cut its energy bills by £175 million, which represents a 40% reduction in real terms.

101. Michelin Tyre plc in Ballymena has cut its energy use by 27%, saving €2.1 million per annum. Pritchitts, a local company based in Newtownards, has invested £1 million in its energy-efficiency projects and is making annual savings of £2 million against its 1999 baseline. In the process, Pritchitts has cut its CO2 emissions by 70%. Those are only three examples from a large number of entries to that competition, all of which demonstrated a similar scale of energy and waste savings. For me, that is a very vivid demonstration of what is possible. That is the sort of experience that the public sector needs to draw on if there is to be any chance of achieving a carbon-neutral estate by 2015.

102. In the recent past, Governments in many countries have recognised the need to augment their public spending as one element of their interventions to tackle the global economic crisis. Committee members will be familiar with Franklin D Roosevelt's renowned New Deal of the 1930s. That was exactly such an intervention, involving a massive investment in public-sector infrastructure. Ideas based on what one might call New Deal thinking have been taking off around the world, with initiatives being considered or adopted in many countries, including South Korea, China and Australia, as well as in Obama's new Administration in the USA. The basic premise of those proposals is framed around the idea that a programme of public works must look to the future, must avoid the worst elements of what one might call the old-fashioned, extractive economy, and, instead, must focus its ambitions on the opportunities presented by the new, low-carbon economy of the future. In short, it is a "green new deal".

103. In Northern Ireland, a wide-ranging group of organisations, from business and civil society, is drawing up proposals for a "green new deal". We suggest that multiple benefits can be derived from targeting investments at initiatives that tackle energy security — the Committee on Climate Change mentioned that earlier — from creating low-carbon infrastructures and from offering ecological protection, most of which will help deliver some of the ambitions expressed in the Programme for Government. We are looking at cost and financing options, not merely going begging to the Executive with cap in hand. Financing options are being developed for a range of projects. First, an ambitious plan to retrofit existing houses is being explored. Rather than rely on the building regulations being introduced for new buildings, we need to retrofit the existing housing stock to a high energy-performance standard. The SDC has calculated that the average cost of refitting houses across the UK is around £11,000 a home. That will bring our standard assessment procedure (SAP) rating, which is an energy performance measurement, up to 81.

104. The second project involves a substantial investment in renewable-energy provision. A story in Tuesday's 'Belfast Telegraph' described Harland and Wolff's increased profits this year, which are partly down to the work that it did in assembling the Cleaner Energy Systems (CES) turbine for the offshore renewables industry. The third project is the reinforcement of the electricity grid. If we are going to have renewables, most of which will be in the west of the Province, the grid needs to be upgraded significantly to bring that energy to the east of the Province, where most people live. That also facilitates decentralised energy technologies.

105. Of course, we need to reduce transport emissions — we know how significant they are in contributing to Northern Ireland's CO2 outputs. That will be done through a combination of better public transport, investment in walkability and in cycling schemes, and better personal travel planning. We recognise that personal cars will be around for a long time to come, but we must facilitate a move towards more efficient cars.

106. A massive investment is needed in the energy efficiency of the public estate, with the intention of delivering low-carbon public services throughout Northern Ireland. Investment of that sort will result in benefits, such as reduced household-energy costs, which will free up resources for consumer spending and investment elsewhere.

107. Efficient use of energy will reduce Northern Ireland's reliance on imported fossil fuels, and that will alleviate our concerns about energy security and our exposure to what might be called the fragile geopolitics of energy supply. It will boost the availability of jobs in the innovative and fast-expanding environmental industries. It will make a vital and early contribution to the carbon-reduction targets in the Programme for Government. It will also help to protect ecological assets and improve the quality of the natural environment, which is a legacy to future generations.

108. In the coming summer, UK Ministers will make a series of policy announcements. A manifesto will be produced outlining the UK position for the United Nations' climate-change talks in Copenhagen in December. An announcement will be made on the new renewable-energy strategy for the UK, and a low-carbon industrial strategy will be rolled out. The Department for Transport will respond to the carbon budget, and a strategy to save heat and energy will be unveiled.

109. We see little evidence of similar policy-thinking in Northern Ireland. To be fair, however, we were impressed by the very good consultation paper on the draft strategic energy framework that DETI issued early.

110. Recently, the Department for Environment, Food and Rural Affairs (DEFRA) researched the best ways in which to create public support for taking effective action on climate change and energy. Unsurprisingly, one of its key conclusions was that, in order for them to act, people must believe that climate change will happen and that, if unchecked, it will have serious consequences. People must also understand what they can do to mitigate that risk. The DEFRA study suggests that two distinct types of messages and processes must be set in motion to create a shift in public attitudes: the delivery of an overarching narrative from leaders in Government; and a series of opportunities must be created for people to engage in, or take action on, climate-change issues.

111. The Committee's inquiry already provides an important springboard for that action. By presenting positive, can-do messages through the media and in the Assembly, Committee members can help to spur business, Government and the public into taking the actions that will begin to tackle the acknowledged threat of climate change.

112. Mr Boylan: Thank you for your presentation. The Committee has listened to only its second presentation, but I already have so much information in my head that I hardly know where to start. I welcome the fact that Mr Clarke may be about to build a nuclear plant in Randalstown to deal with the issue of climate change.

113. Mr T Clarke: Think of the jobs that a nuclear plant would create in Newry.

114. Mr Boylan: The main issue is that Departments must work together on policy. Apart from the budgets and other measures that will be required to address the issue, how prepared is each Department to deliver on policy? Anyone who travels on the M1 or M2 in the morning sees how many private vehicles are on the road. What difficulties do you foresee in reducing the number of private vehicles and in providing better public transport? Realistically, how can each Department deliver on policy?

115. Mr Kitchen: Departments in Northern Ireland are run in such a way that, in a sense, each exists within its own remit. As Committee members will know, it is difficult to get effective

interdepartmental co-operation on a number of issues. I acknowledge that officials work together on many issues, but it remains the responsibility of each departmental Minister to progress the work of his or her Department. Our argument is that a policy on climate change and energy will be more efficiently delivered if those two elements are under the one roof. That does not mean that all the other elements that I mentioned are not important. For example, DSD must deliver more energy-efficient social housing, and DFP must deliver on its responsibility for the Government estate.

116. Mr Boylan: We discovered only recently, and many people may still not know this, that even building standards differ for social housing and private housing. If one were to buy private housing and hand it over to the Department for Social Development or a local association to deliver as social housing, significant changes would have to be made, including to the buildings, as it would not be up to the required social-housing standards. I find it incredible that there are two sets of standards. It is ridiculous.

117. Mr Kitchen: DSD has put in place code level 3 from the 'Code for Sustainable Homes' for all its newbuild housing. Frankly, the Sustainable Development Commission would welcome a raising of that, but I understand that that is not the concern of the Committee. If we are to tackle the climate-change issues that we face in Northern Ireland, we will need to get above code level 3 for sustainable homes. We need the basic standard to be at least code level 4 and aim for much higher standards in the near future.

118. The ambition across the water is to have all housing move to zero carbon by 2016. Our building regulations are moving in that direction as well, but we have not yet declared by when we hope to move to zero carbon in Northern Ireland. If we follow the existing pattern, building regulations here will be implemented a year or so after they are in GB. However, those regulations apply only to new buildings. The fact remains that around 75% to 80% of existing buildings will still be around in 2050, which is the year by which the Government aim to have met all their climate-change targets. Unless we tackle the existing housing stock, commercial buildings and Government buildings, we will not get anywhere near an 80% reduction in energy consumption. Energy efficiency in buildings is a really big deal, and our colleagues from the Committee on Climate Change made that point well. Energy efficiency is the big win. The Carbon Trust's report on what to do about climate change in Northern Ireland reinforces that point.

119. To return to your question about transport, Mr Boylan, the Department for Regional Development is in the process of beginning to look again at its regional transportation strategy, and a consultation process will begin in August 2009. I know for sure that it is looking really hard at sustainable-transport options. Among those will be increased efforts to get people on to public transport, but it will not be easy to achieve that.

120. The Chairperson: I represent an area west of the Bann, and I have been told that many public servants, who are not particularly well, are travelling huge distances every day. They are not the high-flyers who live around Belfast, Holywood or Bangor. I have examined the supposed implications for decentralisation, one of which is be that instead of making a round journey of around 100 miles a day at a cost to themselves, the environment and their families, those public servants might be travelling one or two miles into the nearest town instead. It makes sense and is a simple way in which to do things. Have you given any thought to that?

121. Mr Kitchen: We have not been working on that as such, but I have every sympathy with what you say. More flexible working than exists at present is something that needs to be considered. Working in offices, as we do today, may not be the best way to work in future. Technologically, we are already most of the way there. There is no technological barrier to people working from home several days a week.

122. The Assembly has commissioned a piece of work on the possible relocation of public-sector jobs. I am sorry, but I do not know whether the Committee for Finance and Personnel has reported on that yet. Nevertheless, the situation in Northern Ireland is being examined. Within the time frame that we are talking about, it is fair to say that radical changes will be made to the way in which people earn a living.

123. The Chairperson: It ticks the boxes at no exorbitant cost to Government.

124. Mr Kitchen: It certainly does, especially if it were to become widespread practice, as opposed to the current practice having thousands of public-sector employees come into Belfast every day from, for example, the north-west, the north-east or your constituency.

125. Mr Boylan: I meant to raise the issue of using broadband access to work from home, but you have obviously taken that into account. Funding to do so is now available under EU directives, and that will alleviate some of the major issues over time. Given the fact that 35% of the population lives in rural areas, and that most of those people are isolated, the solution is not simply to spend all the money on major roads. It is to be hoped that that will be highlighted during the inquiry and dealt with in future.

126. Mr Kitchen: From recollection, transport accounts for around 30% of Northern Ireland's emissions. That figure is higher than it is in most other parts of the British Isles. It is a big issue that must be addressed.

127. Mr T Clarke: We seem to be pointing the finger at people who must travel by car to work. They do so out of necessity, rather than through choice. We do not have to look far to see that better transport systems operate in other parts of the UK. Funnily enough, transport is the responsibility of a Minister who belongs to the same party as the Member who asked the question. If Northern Ireland's transport system were improved, there would be better travel links for people, making commuting easier and also giving people a choice. At present, however, people who live in the west of the Province do not have that choice, because transport links are non-existent. Departments must make commitments to improve them.

128. If you permit me, Chairman, I wish to raise another point. I must say that the witnesses from the Committee on Climate Change let the Government get off scot-free. We talk about what everyone else must do but not about what the Government must do. We are sitting in a building that, I am sure, is not energy efficient. We talk about what people must do in their private homes between now and 2050, yet we have taken our eye off the ball when it comes to the Government estate, so I am glad that you have raised the matter.

129. Mr Kitchen: It is absolutely critical that leadership be demonstrated in all aspects of government. The Assembly considers Parliament Buildings to belong to its estate not the Government estate. The existing target in Northern Ireland's sustainable-development strategy is that the Northern Ireland Government estate will be carbon neutral by 2015. That is an insurmountable mountain to climb unless the Executive are prepared to spend a great deal of public money on carbon offsetting, which will not be acceptable.

130. Therefore, much more needs to be done with the Government estate — in all its manifestations. I do not simply mean Government buildings that house Departments, whether they be Dundonald House, River House or any other building. We need to consider the Government estate in the wider context of schools, hospitals, and so on. Every publicly funded building in Northern Ireland must be fit for a low-carbon future.

131. Many schools are being built under the investment strategy over the next 10 years. There is absolutely no point in building a school that will not be fit for a low-carbon future in 2050.

132. The Chairperson: Earlier, you outlined how many businesses are making great efficiency savings while reducing their effect on the environment. The public sector can learn many lessons from business. In many cases, it appears that business is way ahead of the public sector when it comes to being energy efficient. If a business saves money, it is being run well. If it saves money while helping to preserve the environment, that is fine in my book.

133. As part of our inquiry, it may be helpful for us to determine exactly what other Departments are doing to meet their Programme for Government commitments. That could be important. If it is OK with members, we might write to respective Departments to get updates from them on what they are doing.

134. Mr D Ford: Thank you for your presentation, Jim. To take up the point that Trevor Clarke made, if you examine the certificate at the front of Parliament Buildings, you will find that this 80-year-old building is significantly more energy efficient than the four-year-old Antrim Borough Council building, where Trevor and I spend the occasional Thursday afternoon. That illustrates the value of retrofitting — at least in some parts of the public estate.

135. The SDC is a UK-wide body. You have colleagues who work in Edinburgh and Cardiff. At times, you come across as though you are a fan of the UK Government, which is not a crime that I wish to accuse you of entirely. Are there similar problems in Edinburgh and Cardiff with the way in which the Government operate, or are there particular reasons why Northern Ireland lags behind the other devolved Administrations? Is it just us, or do the three devolved bodies' and the UK-wide commitments differ?

136. Mr Kitchen: That is a loaded question, Mr Ford.

137. Mr D Ford: It is intended to be.

138. Mr Kitchen: I will, of course, give you an answer. Very good progress is being made in Wales and Scotland on climate change, and on sustainable development more generally. The Scottish Government made a brave move, which was essentially to abolish Departments and have themes of government instead, one of which is to achieve "a greener Scotland". To that end, they have put great effort into addressing many aspects of the climate-change agenda and sustainable development. The Scottish Government's climate-change targets are significantly ahead of those for Wales and for the UK as a whole.

139. From recollection, the National Assembly for Wales is looking at 3% per annum reductions in emissions, which is similar to targets in Scotland and the Republic of Ireland. In Wales, Jane Davidson, the Minister for Environment, Sustainability and Housing, is charging ahead with that agenda. Her personal impact on driving the agenda in Wales has been significant. I do not know enough about how the structure in Wales works to delineate between here and there.

140. The more general point to be made is that a great deal more interdepartmental co-operation is needed. There are some very effective interdepartmental groups on certain themes — energy, for example — and more of that interdepartmental co-operation is needed to make the progress that we should be making.

141. Mr D Ford: Of course, the method of devolution in Scotland made it easier for them to do that. However, you seem to be saying that we need to be trying to have more interdepartmental co-operation.

142. Mr Kitchen: We can do it.

143. The Chairperson: Can you explain, please, how the mechanics of that might operate?

144. Mr Kitchen: The specific suggestion that we made is that the responsibilities for climate change, economy and energy should be under one roof. We should have a Department for energy and climate change, similar to what has been established in Whitehall with the Department of Energy and Climate Change (DECC). That would enhance the possibilities of putting investment into a future low-carbon economy, whereby the specialists in climate change and economic development would, one hopes, work seamlessly together. That is our aspiration.

145. The Chairperson: Your submission states that the Northern Ireland Audit Office could have a role to play in overseeing and measuring progress. How might that work?

146. Mr Kitchen: The responsibility of each Assembly Committee is to scrutinise, and that is an important element of its work. The Northern Ireland Audit Office could assist all Committees by providing them with access to specialist staff who are already skilled in auditing, who have established relationships with Departments throughout Government, and who would be able to provide you, as politicians, with expert assessment of progress against various targets, whether they be climate change, energy or sustainable development. That would then allow scrutiny Committees to make judgements.

147. The Chairperson: How do you feel about Northern Ireland's having its own carbon-emission-reduction targets?

148. Mr Kitchen: I want to see Northern Ireland have its own targets. I hope that the Committee on Climate Change, as a result of its having detailed scientific knowledge, will be able to advise on the setting of those targets. It is important that Northern Ireland make a proportionate response to the UK and EU targets, whatever they may be, while taking into account our different circumstances. We are impacted on in various ways, not least because we share a land border with another EU member state. That has some significant impacts on setting our targets.

149. The make-up of our economy is heavily agriculture-based, so the considerations for Northern Ireland are different from those that pertain to England, for example. Therefore, it is not just a question of read-across — 3% per annum might be a rule of thumb that we could consider, but I am sure that the detailed work that the Committee on Climate Change can assist us with will be of great value in helping us eventually to set targets for Northern Ireland.

150. Mr D Ford: You talked about the concept of a "green new deal". Some of the opportunities that you highlighted, as was said earlier, lay across a range of Departments. For example, the universities come under the Department for Employment and Learning (DEL), biomass comes under DARD and other aspects of energy comes under DETI. How do you see the concept of a "green new deal" being driven in Northern Ireland if it is adopted?

151. Mr Kitchen: We will have a number of audiences for the "green new deal", which is a range of thinking that I have described as coming from a Broad Church of civic society. Everyone is represented, from the business community, including the Confederation of British Industry (CBI) and the Institute of Directors (IOD), to the unions, including the Irish Congress of Trade Unions (ICTU) and UNISON, to the voluntary sector, including the Northern Ireland Council for Voluntary Action (NICVA). There are many other players. We will end up with something that is not only strategic in its ambitions but will come up with some ideas on how to finance the work, because the money will not exclusively come from Government funding — at least, we hope that it will not.

152. How will such a concept be addressed? We are still at the earliest stages of the thinking and of getting a report together, but, ultimately, we hope that it will be considered by the

Executive and other bodies that will help to formulate Executive thinking. Therefore, the Economic Development Forum (EDF) will be a key target audience in the near future, once we have got to the stage of being able to present more detailed evidence, drawn up by the experts in the group.

153. Mr Boylan: You said about not coming to the Executive to beg for money. I am sure that if our Ministers had enough money they would build all the roads or buy whatever was needed. From where do you envisage getting the finance? Is it through policies or new ideas? Innovation is another form of technology, so what role will it play? The economic conference is coming up, so will you expand a little?

154. Mr Kitchen: I cannot expand a great deal, because it is not one of my areas of expertise. There are people in the group who are putting together the financial packages that might be proposed, but that will be done in conjunction with institutions such as the banks — we will be talking to the banks to see what elements might be useful. One of the ideas that has been proposed, although I do not know how much of a runner it is, is something called a green bond. The SDC recently produced a report 'Prosperity without Growth?', which looks at some elements of financial restructuring. For example, during an economic recession, it is well known that people tend to save money. The Government are trying to get people to spend money to try to kick-start the economy, but people are nervous about spending money if they do not know whether they will have a job in three months' time. Therefore, their instinct is to save money. If you could offer a vehicle for that saving, which would be targeted at investment in a low-carbon economy of the future, be that renewable energies or other innovations, as Mr Boylan said, that might be a vehicle in which people could invest. If we make that a vehicle for folks in Northern Ireland, it could be a runner. It is too early to go into much more detail, I am afraid.

155. The Chairperson: I thank Mr Kitchen and Mr Dillon for giving evidence to the Committee.

156. The next witnesses to provide oral evidence represent the Met Office. Members should note that the Met Office is the UK's national meteorological service. It produces information that is used for safety of life and property. That information is also used for defence and civil aviation and to provide a wide range of products and services that are tailored to meet the needs of individual customers. Members have been provided with a summary of the Met Office's submission and the specialist adviser's comments.

157. I welcome Professor John Mitchell and Mr Alex Hill from the Met Office. It is great to have you with us. As before, the witnesses will present a brief overview of their evidence for 10 or 15 minutes, and then members will ask questions.

158. Professor John Mitchell (Met Office): Thank you, Mr Chairman, for allowing us to give evidence. I shall cover three topics, starting with the scientific basis for climate change. That is important, because, although most people here may accept that the climate is changing, not all of your constituents do. If you are to persuade them to make economic changes, and so forth, it is important that you are able to persuade them that climate change is happening and is an issue that must be dealt with.

159. Secondly, I shall talk about global climate change. That is really important in making the arguments for reducing emissions.

160. Finally, I shall talk about climate change in the British Isles, particularly in Northern Ireland, and its importance in respect of adaptation. When adapting something, one does not want to undercook or overcook it. For example, it is expensive to build barriers such as the Thames Barrier. One does not want to build barriers that are bigger than one needs, and, on the other hand, one does not want to construct a barrier that is too small because that will have

consequences. Intermediate stages, such as setting land aside, may be used when better information on climate change is available.

161. I shall start with the physical science aspect of the evidence for climate change. The recent increases in carbon dioxide, which is the main gas that drives climate change, are not part of a natural cycle. Measurements of carbon dioxide concentrations over the past 400,000 years show that there have been four ice ages, which have occurred during times of low carbon dioxide concentration. Interglacial periods occur during peaks of high concentration of carbon dioxide. We are currently in an interglacial period.

162. In interglacial periods, there are between 180 and 300 parts per million of carbon dioxide. Over the past 100 to 150 years, that has increased by around 30%, which is an unprecedented rate of increase. Some of the higher emission scenarios go well above doubling CO₂, so there is no doubt that those increases are not part of a natural cycle. The budgets of energy emission and carbon emission can be tied up with the increases in the atmosphere.

163. Carbon dioxide has a warming effect — a greenhouse effect. That statement is not based on complicated models, but on a simple understanding of physics that we learn in school. Carbon dioxide absorbs infrared radiation. The more greenhouse gases there are, the more infrared radiation is trapped, and the warmer the surface will become. Water vapour is the main greenhouse gas in the atmosphere, and, without the greenhouse effect, we would probably be in an ice age. There is no doubt about the physics of the greenhouse effect; it is reality. Although it is sometimes called a theory, it is a well-validated theory.

164. Using simple physics, a doubling in the amount of CO₂ would lead to warming of around 1°C. Because warming the atmosphere would increase water vapour, doubling CO₂ would increase that warming to around 2°C. That is based on empirical evidence and looking at observations from analogue evidence.

165. Some uncertainty comes in when the temperature and water content of the atmosphere is changed. It may lead to changes in clouds and wind. We have to design a model for that, and that is where some of the uncertainty comes. Even with that, a doubling of the amount of CO₂ would mean an increase in temperature of anything between 1.5°C and 5.5°C. Even the lower end of that scale is not an inconsiderable amount. Although there is uncertainty, a substantial amount of warming is expected due to the doubling of CO₂.

166. When simulated temperatures are modelled only to take account of natural factors, such as volcanic eruptions and changes in solar output, from 1900 to the present, we see very little change, particularly in the past 30 or 40 years. In fact, if anything, there has been a slight cooling. In the past 30 years, there have been three major volcanic eruptions and no increase in solar output has been measured. Unsurprisingly, natural factors do not explain the recent warming that has been observed.

167. When models include the effects of greenhouse gases and other pollutants, there is a much better match to the observed record, which is strong evidence that the warming that has been observed so far is due at least in part to the increased level of greenhouse gases. Other factors may have contributed, but the Intergovernmental Panel on Climate Change (IPCC) came to the conclusion that most of that warming has been due to greenhouse gases.

168. With respect to future global climate change, the IPCC model of predicted average surface temperatures between 2000 and 2100 produced results ranging from 2°C to 4.5°C above average pre-industrial temperatures. We can ignore the prediction of what would happen if we were able to restrict greenhouse gas levels to present levels, because that scenario would require an instantaneous 60% to 80% decrease in emissions.

169. The highest predicted average surface temperatures in the IPCC model will come about if we continue with business as usual. The best feasible scenario, which more or less predicts a levelling off of average surface temperatures, is produced by assuming an initial increase in emissions, followed by a decrease to below present levels. Those scenarios are based on quite a range of emissions. Putting them in perspective, we currently emit approximately seven gigatons of carbon a year, so the worst scenario would see that figure rise to approximately 25 gigatons a year, and the best would see carbon emissions fall to seven gigatons a year.

170. There are two points to take from the IPCC model. First, in the initial decades up to the 2030s, big changes to emissions will have little effect on temperatures because of inertia in the system. It will only be in the latter part of the century that the effects will begin to be seen. It is a bit like paying off one's mortgage: at the beginning, one sees little effect, but, as one approaches the end, it is paid off much more quickly. The message from the model, therefore, is that, if one wishes to reduce the rate of future temperature increases, the sooner one begins to reduce emissions, the better. The second point to take is that some climate change is inevitable, unless emissions are instantaneously reduced by 60% to 80%, which, I suspect, is impractical.

171. However, to the man in the street, a 2°C increase in average global temperatures above pre-industrial levels means little. Therefore, I shall specifically consider summer temperatures for southern Europe. The warm summer of 2003 shows up as a spike in the record. Before then, actual observations and model runs more or less coincide. In addition, we have several predictions for the future. If greenhouse gases had not been emitted over the past 150 years, the modelling evidence suggests that the chance of that very warm summer, which killed 30,000 to 40,000 people, and which particularly affected France, would have been lower by a factor of two to four. More importantly, by the 2040s and 2050s, the warming scenario predicted by modelling indicates that such a warm summer will become a one-in-two-year event, occurring every second year. By the end of the century, such a summer will become a comparatively cool event.

172. Although a 2°C warming does not sound like a lot, when one takes into account the fact that we are on land that warms more than the global average, that high latitudes warm more than the tropics and extremes increase more than the mean, you begin to get an impression of what a 2°C change means.

173. The IPCC predictions are fairly conservative. They include the science that we know and understand. Some less-well-established and longer-term changes could occur, and I have deliberately tried to separate what we are fairly certain of from what is more speculative. The problem is that people who are concerned about the environment accuse us of not stating the dangers sufficiently, and other people who are sceptical about global warming say that we exaggerate. Therefore, I have carefully separated what is sound science from the areas where it is less well-established, whereby more severe changes could occur.

174. The Greenland ice melt is one of the areas of greater concern. If all the ice in Greenland were to melt, the sea level would rise by approximately five metres. In the current projections, we treat Greenland as a slab of ice, so it would take several thousand years for it to melt. However, there is some evidence that the ice could start to collapse much more quickly. As the water percolates down into the bottom of the ice sheet, it lubricates the bottom and could lead more quickly to collapse. That could accelerate the rate of sea-level rise.

175. Another area of concern is methane clathrate instability. Methane is a very strong greenhouse gas, which is trapped in the tundra over Siberia, and it is also in some of the high-latitude oceans on the bottom of the sea bed. If temperatures were to increase sufficiently — and, again, this a much more speculative issue — the methane could be released, which would augment the warming that we have allowed for already.

176. A third area of concern is the Amazon dieback. There is evidence from modelling — and this is, again, why it is less certain than some of the other changes — that increases in greenhouse gases would lead to dieback in the Amazon rainforest, which would lead to a further release of carbon dioxide and other positive feedback.

177. I will not mention Antarctic sea ice, but I will talk about Gulf Stream collapse. That is particularly relevant to Northern Ireland, because we are just downstream from the Atlantic. There is no evidence from models over the next 100 years that the Gulf Stream will collapse, but there is evidence that it is slowing down. There are a couple of issues there. First, it means that the changes in the Atlantic temperatures are less than over the continent. In a sense, that is good news for Northern Ireland, because it is mediating warming.

178. The not-so-good news is that, if the ocean does not warm very much, but the land does, the moisture evaporates from the land, but there will be no compensating evaporation and rainfall off the ocean over southern Europe, into the British Isles and the rest of Europe in the summer. Therefore, there will not only be reductions in rainfall in the summer, but there will be increased evaporation, which causes issues for water storage. The good news is that winter rainfall tends to increase, but then there will be issues around how to store water, how to transport it, and so on.

179. Again, on the more speculative side, if we stabilise greenhouse gases today, it would include removing some aerosols, because, essentially, in reducing emissions, one cleans up other emissions. We estimate that there will be a 75% chance of the Greenland ice sheet melting over time, but it will not happen immediately. There will be a 20% chance of a global temperature increase of 3°C, which would lead to a lot of damage in the tropics, particularly in the Amazon rainforest. That, again, is a model-dependent result. If the temperature were to increase by 4°C, there would be a real issue of releasing methane from the tundra, and the Met Office is studying that issue. Those are the possible global changes. Therefore, there is an argument for reducing emissions. It is obviously a global problem.

180. Furthermore, if the climate is going to change — and I think that I have shown that some change is inevitable — what do we need to adapt to? Scientifically, that is a much more difficult problem, because it means predicting not just what will happen globally, but what will happen locally. We have got ourselves into this issue, and we have established to a fair degree of certainty that a changing climate continues to change. However, it is much more difficult to predict regional changes. There are some well-established global patterns, such as rainfall tending to decrease in high latitudes over southern Europe.

181. Therefore, changes in temperature vary from southern Europe to northern Europe. Most models show that, in winter, the British Isles, including Northern Ireland, experience an increase in temperature. In summer, that regional decrease in temperature will move northwards. That will have a fairly large-scale effect, and that is why we are predicting reductions in rainfall this summer.

182. The other problem with regional changes is that smaller scales have a lot more year-to-year natural variability. Everyone says to me that climate change is going to happen anyhow, and that is quite right. However, we are now looking at the changes above the level of natural variation. Of course, the uncertainties in modelling become greater.

183. Having said that, in 2002, the United Kingdom climate impacts programme (UKCIP02) produced scenarios that predicted rises in temperature. Those predictions will be updated in early summer 2009, but I cannot tell you what they will show. However, I can say that the mean changes are not very different from the changes shown in the UKCIP02; nevertheless, there are some subtle variations.

184. In winter, the temperature rise in Northern Ireland will probably be less than 2°C, whereas in the rest of British Isles, particularly in south-east England, the temperature will rise by 3°C or more. Temperatures changes are greater in the summer. In Northern Ireland, the temperature will probably rise by about 2°C or 3°C, and in south-east England it will probably rise by about 4°C or 5°C. That is dependent on a fairly high emissions scenario. I should state that those temperature predictions depend on what we do to address the issue of emissions.

185. Changes in temperature are relatively easy to predict; however, it is much more difficult to predict variations in rainfall. In the document that I provided to members, there are two graphs that illustrate the percentage change in summertime rainfall in England and Wales from 1980 to 2100; however, the levels of rainfall could be true for Northern Ireland, too. One graph shows the year-to-year summertime change and the other shows the 30-year summer mean change. My point is that, even in the present day, from year to year there can be a 50% plus or minus variation in rainfall. Therefore, it is much more difficult to predict and detect changes in rainfall.

186. The graph illustrating the year-to-year summertime change indicates that at the beginning of 1980 there were high rainfall events and that perhaps towards the start of 2100 there will be more low rainfall events. To clarify, however, the graph illustrating the 30-year summer mean changes has been compiled using the same information from a number of different model predications and has averaged those over 30 years. That graph shows a much clearer decrease in rainfall. It is difficult to detect decreases in rainfall from year to year. However, from looking at planning infrastructure, particularly reservoirs, it is possible to notice a change in rainfall.

187. On top of that, there will be an increase in evaporation. Year-to-year changes in rainfall are likely to be small, but over a period of time, it is possible to notice a difference; that is important. One particularly wet year does not prove that summers are getting wetter. Similarly, a dry year does not prove that it is getting drier.

188. Finally, it is likely — and this is really conservative scientific language — that the effect of human emissions of greenhouse gases on the climate has already been detected. The odds are something like 9:1. Scientists tend to be cautious, but if I were a betting man, I would say that those are good odds. The climate will continue to change with considerable regional effects.

189. The UK climate impacts programme of 2002 produced a single model prediction and rolled that out. I have said that there are uncertainties between models. What we have tried to do in the forthcoming UKCIP scenarios is to estimate the range of uncertainty in those predications, so whereas in the previous one we just had one single prediction, we are now looking at an estimated probability distribution of uncertainty.

190. Some people may simply want to consider the most probable prediction. However, people seeking more complicated applications may want to look at the range of probabilities. That is something that will come out in the next few months. The forthcoming prediction models will have a degree of sophistication, and the Met Office can help people to understand those.

191. The Chairperson: Professor Mitchell, thank you very much for that very comprehensive overview and articulation of your point of view.

192. Mr McClarty: Thank you for your presentation; it was extremely interesting. You started off by saying that some of our constituents would not believe in global warming or climate change. I do not think that we have to go very far outside this Building to find people who do not believe in that. You have given us a model for the past 400,000 years. There are others who believe that the world is not more than 10,000 years old.

193. Mr I McCrea: Hear, hear.

194. Mr McClarty: Books tell us that in the middle ages and in Roman times, people in the north of England grew their own grapes, and made their own wine. To grow grapes requires higher temperatures than we currently experience in this part of the world. How can you say with certainty that the increase in temperature as predicted is not cyclical?

195. Professor Mitchell: Professor Lamb, who used to be at the Met Office, was one of the pioneers in looking at non-instrumental records; things like records of grapes growing in places where they do not grow now. That is indirect evidence.

196. The issue is that there are changes, and those changes tend to be natural. They tend to be larger locally than when you average them out. To give a simple example, one of the things that affects our climate, particularly in the west of the British Isles, is how strong westerly winds are blowing. In looking at records from the past 40 or 50 years, one can find a period in the 1940s or 1950s when those winds were less strong than they are now; we had more easterly winds; and our climate was drier and sunny.

197. In looking to the 1960s, 1970s and 1980s, those winds were stronger. The records for Scotland in particular show a huge peak in rainfall, which may look like global warming, but it is not. It is natural fluctuation. Over the last decade or so, that has been less, and that peak has come down.

198. There are natural fluctuations, and the models will produce those. We try to validate them on a seasonal, inter-annual, and decadal timescale back as far as records exist. Once one averages the reconstructions globally, it is very hard to find anything that competes with the current warming, let alone with a one- to two-degree rise in the future.

199. There have been and tend to be changes regionally, but often one area is warmer while another area is colder. When there are strong westerly winds, for example, it may be warmer in winter where we are, but it is colder in other parts. There tends to be compensation around the globe.

200. My confidence is in the physical arguments. If there is an increase in greenhouse gases, there is an increase in heat and, therefore, temperature. It is a simple argument. Other things may be going on, but patterns such as the one in the graph that members have been given, in which the curves represent the changes with and without natural effects, show that it is not just a global pattern; it is a spatial pattern.

201. The warming is greater over the land than over the sea. It is greater in high latitudes. The vertical distribution of the warming shows that the warming is in most of the atmosphere, and the cooling above, which is due to the increased carbon dioxide. There are a number of factors that show that warming is consistent with that increase in carbon dioxide. Physically, if you heat something, it will get warmer.

202. Mr McClarty: In those days, why did the high temperatures not have an effect on ice caps, for instance?

203. Professor Mitchell: If it was not global, it would not affect ice caps. One of the theories behind ice ages is the changes in orbital variations. In the northern hemisphere, the orbital variations were such that we tended to get more sunshine in summer. There is evidence, down in the Sahara, that the monsoon was stronger, because there is a stronger land/sea contrast, there were grassland hippos in the Sahara, and so on. We can reproduce those climatic conditions in models.

204. That is the second factor that gives me confidence: when one changes the orbital parameters, one can start to reproduce some of those changes in climate, although not in detail and not exactly. That is why we have to be very careful about the regional detail in the predictions. On a global scale, there is no doubt in my mind.

205. Mr McClarty: Fascinating and frightening at the same time.

206. Professor Mitchell: I do not want to be alarmist; I am just trying to present the science as it is. We say that science progresses and things may change, but, currently, the evidence is very strong. "Very likely" is quite a strong term for a scientist to use.

207. Mr T Clarke: I am not as old as Mr McClarty, so I do not want to go back 400,000 years; I just want to go back to the past two years. I am a bit sceptical. Although I share everyone's concerns about climate change, the Met Office has predicted Indian summers for the past two years, but that has not happened. What is your scientific response to that?

208. Professor Mitchell: I am glad that you asked me that. It is unfortunate that we do not have the diagrams in colour, but if we go back to the previous diagram, the year-to-year variations are in the black curve, which you may not be able to distinguish from the red curve. You see it in the observations and in the model. Year to year, we see quite big variations in temperature and rainfall. In fact, rainfall can swing from plus 50% to minus 50%, which is due to changes in atmospheric circulation with the wind coming from the north, the south, and so on, and that is much more difficult to produce than the warming effect of greenhouse gases. We are attempting to predict how the dynamics of the atmosphere will change, which is a much more difficult problem than what happens if the atmosphere is heated.

209. In the short timescale, I agree with you that the skill in seasonal forecasts, particularly in the summer, is low. We accept that, and that is something that we are trying to improve. Nevertheless, it can be better in the winter. We are not trying to predict that year-to-year variability in the climate forecast. We are looking at the longer term. Essentially, there is the band of variability, which is the difference between the warm and the cold summers that we experienced without climate change.

210. Basically, as the greenhouse gases warm, the range over which that goes produces an average increase in temperature, but there is still year-to-year variability. There will still be hotter summers and colder summers, and there will still be wetter summers and drier summers. It is predicting a different aspect of the atmosphere. If one heats something, it will warm. However, it is much more difficult to say what the weather systems will do within a year.

211. One of your colleagues said that it is like economics — it is chaotic — and that is quite right. Trying to predict the longer-term year-to-year evolution is chaotic, but not the effect of heat over a longer time. That, essentially, is the difference.

212. The Chairperson: You are saying that we are going to have global warming because of the increase in greenhouse gases, and that man is the single largest contributor to those gases. That is the longer-term projection from the Met Office.

213. Professor Mitchell: That is correct. Predicting 10 years ahead is difficult because, as you say, the year-to-year variability is quite big. It is not until the warming due to greenhouse gases is so big that you sift it up, that it can be detected. Even more difficult is rainfall, which is why I show that rather abstruse picture, which shows a lot of year-to-year variability. Projecting changes in rainfall is more difficult and more subtle.

214. Mr T Clarke: Should I go out and buy shorts and T-shirts for this year? You have got it wrong for the past two years. What about this year?

215. Professor Mitchell: This may sound slightly defensive, and I do not mean it to, but it is a probability prediction. We are saying that, for this year, the factor is about 2:1 that it is more likely to be warmer than colder.

216. Mr Alex Hill (Met Office): I would say 60:40. There is a 60% chance of it being warmer than average and a 40% chance of it being colder.

217. Mr T Clarke: In light of that response, could that also play into people's fears that there might be a 60:40 chance of climate change? You are supposed to be the experts — the people who bring us the forecasts and tell us what is happening. I do not mean to be rude, but for the past while the Met Office has not always got it right. I can understand where the scepticism is coming from.

218. Professor Mitchell: I understand that. It is because people are familiar with the weather forecast predicting 24 hours ahead, when the Met Office is quite 80% accurate. In doing that, it follows an individual weather system through. However, as that forecast is run out over a longer period, one starts to lose the skill, and by 10 to 20 days, the skill is lost.

219. In the tropics, in particular, is the phenomenon that is known as El Niño. That has the effect of heating the tropical oceans, particularly the Pacific Ocean, and they stay warm for a year or so. That is where seasonal forecasts are valuable. El Niño will move all the rain belts round, and that is why there are occasional droughts in northern Australia and Java and rainfall in Peru, which is unusual. Subsequently, the weather conditions flip back again.

220. That change is evident over the years, so there is predictability. Once it starts, one knows what will happen next. Unfortunately, that does not have a great influence in our latitudes. That is why the seasonal forecast is more difficult. The accuracy of the seasonal forecast depends on the area that is being forecast and the cause of the change. The change in respect of greenhouse gases is well understood, and it is inevitable.

221. The Chairperson: Thank you for attending the Committee meeting and providing us with information. We will take a break and return at 12.40 pm.

The Committee was suspended.

On resuming —

222. The Chairperson (Mr McGlone): We will now hear evidence from the Northern Ireland Council for Voluntary Action (NICVA), which is the umbrella body for community and voluntary organisations in Northern Ireland. In its role as the voluntary-sector development agency, NICVA seeks to represent the interests of community and voluntary organisations throughout Northern Ireland. Any of us who has worked in that sector will have come into contact with NICVA. It acts as a catalyst to promote innovation and new approaches to the challenges of social need. It works for justice, equality and dignity throughout society by promoting opportunities for community participation in the essential decisions that affect people from all backgrounds. A summary of NICVA's submission to the inquiry can be found in members' packs, along with the specialist adviser's comments.

223. Frances McCandless is NICVA's director of policy. You are very welcome indeed; it is good to see you again. You have 10 or 15 minutes to give the Committee an overview of your evidence and then members will ask questions.

224. Ms Frances McCandless (Northern Ireland Council for Voluntary Action): Thank you for the invitation. I am delighted to be here representing NICVA. We very much welcome the Committee's inquiry, which is extremely timely, particularly in the run-up to December's Copenhagen summit on climate change. It is important that Northern Ireland, along with other parts of these islands, turns its face to climate change. The council welcomes the inquiry's terms of reference, because they are focused on action, costs, and what can realistically be done. It is important to move from debating whether climate change is happening to talking about what can be done, when it can be done and what it will cost.

225. NICVA works on climate-change issues in two major coalitions. We are not climate scientists or economists. We represent community and voluntary organisations across Northern Ireland. There are more than 4,500 such organisations, of which 1,000 are NICVA members. We work with member organisations that have climate experts, and with organisations in disadvantaged communities that are starting to be strongly affected by issues associated with climate change.

226. This is a social-justice issue between generations and within generations. We want a Northern Ireland in which people will not be disadvantaged by the impacts that might result from a changing climate. Our sister councils in Scotland, England and Wales also work on those issues, because we see climate change as a pressing social issue. It is not a niche scientific or environmental issue but a huge social and economic issue for Northern Ireland.

227. It is important that we look at mitigation, — reducing carbon emissions and slowing the rate of climate change, which is happening — and at adaptation, which is getting ourselves ready to deal with the consequences of climate changes that can be confidently predicted. We work, as I said, in two coalitions. One is the Climate Change Coalition (Northern Ireland), which is about to change its name to Stop Climate Chaos. The coalition includes environmental organisations that are expert in climate change; development agencies that are concerned about the global impact of climate change and the effect of our actions on people in other parts of the world; health bodies; housing bodies; and trade unions. The membership shows that climate change is a broad area of concern and goes well beyond the environment.

228. NICVA is also a part of the Northern Ireland Climate Change Impacts Partnership (NICCIP), which includes Government bodies; employers' representatives; engineering professionals; health and environmental representatives, and businesses. The partnership is about adaptation and preparing Northern Ireland for the changes that are happening. It is important, therefore, to look at both of those agendas.

229. The Northern Ireland Climate Change Impacts Partnership has made a submission to the Committee's inquiry. Last year, however, it carried out research to find out how much people on the street in Northern Ireland, people in the Assembly and people in decision-making roles in Government bodies knew about climate change, and who thought that they could act and were prepared to act.

230. The study found that 62% of the public believed that climate changes had already had an impact on them. There is a consensus among all those questioned that over the next five, 25 and 50 years, climate change will have an increasing impact on Northern Ireland. Twenty-six of the 28 MLAs who responded to the survey believed that the Assembly could have a positive impact on reducing the impact of climate change. Members therefore clearly envision a role for you in that. Eighteen of the 24 MLAs who responded to another question thought that their

constituents were willing to make lifestyle changes, yet 89% of those constituents said that they were willing to make lifestyle changes.

231. People are, therefore, much more ready and willing to make change than is customarily thought. In my experience of working with groups and communities, people are making change and are out ahead. We heard earlier that businesses are out ahead. That is often the case with communities, too, and they are looking for leadership from you and from the Executive.

232. According to the survey, 48 out of 55 key local council and central Government decision-makers said that priorities other than climate change were ranked much higher, and that that was holding them back from acting. Among members of the public who responded, 80% said that they would be prepared to install renewable-energy technology if it were financially viable, and 24 of the 28 MLAs who responded said that the amount of energy generated from renewable resources should be increased.

233. Overall, there is overwhelming support for action, especially from the public. Therefore, politicians need not be timid about climate change. People are already acting, and they want more leadership and support. Climate change is a key leadership and governance issue for Northern Ireland, and we want to see the Assembly take the lead.

234. Climate change should set the context for society and the economy, not the other way around, because there are finite scientific limits. We must consider other things in that context, and relate all other decisions to that. Climate change presents us with challenges and opportunities, particularly economic opportunities. It is not all about costs; it is about real opportunities to take Northern Ireland's development to a different place. We are a small region, and we can integrate elements well if we try. We could be a world leader on some climate-change issues. For example, when the Stern Report was released, Northern Ireland could have thought about modelling the report's vision, taking advantage of the economic opportunities that it outlined; and modelling some of the costs. In a region the size of Northern Ireland, we can still do that.

235. Climate change is an issue that affects every Department and public body. We are delighted that the Committee of the Environment is taking the lead, but, as witnesses have already stressed today, it is an issue that cuts across all 11 Departments. It will be very difficult for one Committee to have much leverage over the other Departments. We think that tackling climate change will require a great deal of sideways working among Committees and, hopefully, following on from that, among Departments.

236. The Climate Change Act 2008 does not set specific emission-reduction targets for any of the devolved Administrations. However, with the Committee on Climate Change's help, Scotland has gone ahead with setting its own target. We think that the only way in which Northern Ireland can play a fair and proportionate role, as the Committee's terms of reference state, is to make specific commitments for Northern Ireland. We know that Northern Ireland's emissions are proportionately high in some areas, particularly in the areas of transport and agriculture. There are reasons for that. As we have heard, transportation in rural areas is very poor, and people rely on their cars. However, we need to try to think about solutions to those problems. We cannot use the reasons as excuses.

237. Northern Ireland's initial commitments, in keeping with UK legislation, should include local, legally binding targets for reducing carbon emissions. That target should be an 80% reduction by 2050 in emissions from 1990 levels. We would like to see those targets contained in a piece of primary legislation — a Northern Ireland Act — so that they are binding commitments. The Assembly and the Executive should clearly state their support for an international climate-change agreement to limit global warming to no more than 2°C, the threshold beyond which

temperature increases can lead to unpredictable and potentially dangerous changes. That support is particularly important this year, in the lead-up to the Copenhagen conference. If there is such a Northern Ireland Act, we want it to provide a framework for all the actions to be taken, and all the benchmarks agreed.

238. As I said, we should be considering mitigation and adaptation. Some very good work has been done on that, as I am sure you know, by the Scotland and Northern Ireland Forum for Environmental Research (SNIFFER). The forum has completed two pieces of work to which I draw the Committee's attention. In 2007, SNIFFER considered what is already happening. We have seen flooding, farms ruined, businesses lost, houses damaged, lives disrupted. We need to be preparing to adapt to what is already happening. That first SNIFFER report highlighted adaptation responses in areas such as biodiversity and habitats, agriculture, forestry, fisheries, water resources, coastal and flood-risk management, buildings, construction and planning, business, insurance, transport, energy and health.

239. All public-sector procurement, especially the strategic investment strategy, which currently stands at £15 billion over the next 10 years, must be proofed to ensure that it has robust adaptation components built into it. It does not make sense to build an infrastructure that will be with us for the next 20, 30 or 40 years, if it is not robustly adaptable to what the climate will look like at that time, particularly for things such as flood risk. Adaptation, in a sense, is not amenable to targets. It is no good saying that 70% of newbuilds should be adaptable — 100% of newbuilds must be adaptable; otherwise, we will end up having to redo them, because they will simply not be fit for purpose.

240. The most recent piece of work carried out by SNIFFER was on the impacts of climate change, which is of particular importance to NICVA. The impacts of climate change will be differential, hitting some people harder than others. Already, Northern Ireland has a very high proportion of people living in poverty and in fuel poverty, people with lifelong, limiting illnesses, and communities that have poor connections and poor resilience in general. Those are the people who will be hit hardest by climate change and its effects. We must think about what we are going to do for those groups of people. I draw the Committee's attention to that report, which was published earlier this year.

241. We must ensure that what we do by way of adaptation does not conflict with what we do by way of mitigation. If the summers get hotter, one does not install air-conditioning systems, which use carbon-based fuels. We must ensure that the adaptation agenda does not conflict with the mitigation agenda; that we are not making things worse through short-term fixes.

242. As to necessary actions and a route map, to reach the long-term targets that should be set at 80%, we need intermediary benchmarking targets. The Programme for Government targets are not sufficiently stretching if we are to keep up with UK legislation. At present, the Programme for Government commits to reducing greenhouse-gas emissions by 25% below 1990 levels by 2025. We heard from the Committee on Climate Change that we should be talking about a 42% reduction, and not even within the same time frame but four years sooner — by 2020. We need a plan to get from here to 2020. As the Committee has said, we cannot leave it until 2019 before we start doing something about it. We would like to see the next Programme for Government set intermediary targets for emissions between now and 2020.

243. As Jim Kitchen said, we need legally binding five-year carbon budgets to keep up with developments in UK legislation. That is the only way in which we will get there step by step. We need to plan a managed transition in our economy and society to move us away from our carbon dependency. It needs to be done in stages, and five-year budgets would be a start. As Jim Kitchen has said, a 3% target, which is the UK target, would be a good starting point. We also recommend that the Committee on Climate Change, under the ad hoc procedure that was

mentioned earlier, be involved in setting those targets. It is currently doing that in Scotland, and it would be able to give advice and help in Northern Ireland in setting carbon budgets and setting targets and benchmarks.

244. In its terms of reference, the Committee asked about impact assessments. No one wants to add to the long, long list of impact assessments that every policy currently has to undergo. However, we feel that this is absolutely vital and such a key issue that new policies and spending programmes should have some form of climate-change impact assessment; otherwise, we simply will not know how the spending will stack up and the impact of new expenditure.

245. If we go down the carbon-budgeting route, it will have an impact on fuel poverty. The point of carbon-budgeting is to reflect the true costs of carbon and to reduce its use. That means that the price of carbon, in the short term, will rise. Those already living in fuel poverty will feel the impact even more strongly. Energy-efficiency measures will go a huge way towards ensuring that their costs do not go up as much as they could, but we need to be realistic. If we are to set carbon budgets — the report of the Committee on Climate Change contains interesting figures on this — we need to consider how we will compensate and help out those homes that are on low incomes and that are already in fuel poverty. We do not want the actions that we take in one part of Government to exacerbate the circumstances with which people are already struggling in another area.

246. We would like to see responsibilities for delivering targets allocated in a Northern Ireland climate change Act and identified in individual public service agreements for each and every Department. As we heard earlier, almost every Department is implicated in the actions that will need to be taken; it cannot simply be left to the Department of the Environment. The climate change unit's own public service agreement should commit it to providing a key advice and information role. Clearly, however, the unit will not have a delivery role to play in many of the mechanisms that do not sit within the Department of the Environment.

247. We feel strongly that immediate action is required. I have said that we cannot wait until 2019; but we really cannot wait until 2010 or 2011. We have to start thinking about it now. The scientific advice is that emissions should peak no later than 2015 or 2016, so we cannot leave it too long. The longer that that part of the curve continues to rise, the greater the level of carbon is emitted, and the greater the overall long-term damage. There is a big time constraint, and we cannot ignore it.

248. We want to see a short-term route map provided by the action plans that accompany the sustainable development strategy. Jim Kitchen said that the timescale might not allow for that. However, those action plans can provide a way, within the framework of a piece of primary legislation, of setting out short-term goals, targets and steps.

249. Critically, we need to ensure that we decouple growth from resource use. We are 99% dependent on fuels that are based on carbon and come from outside Northern Ireland. Even if there were no global warming, we would need to think seriously about the fact that a pipeline from Russia supplies most of our gas. We cannot afford to compete in the global markets, and we do not have the energy security that we need. For no other reason than that, we need to decouple our social and economic growth from fuels that we cannot produce here.

250. We and many others, as you have heard, advocate a "green new deal" package for Northern Ireland. That has already been raised with the First Minister and the deputy First Minister. NICVA, the Irish Congress of Trade Unions, the Confederation of British Industry, the Institute of Directors and others will submit a paper to the Economic Development Forum in the near future. We will look at financing mechanisms, because we recognise that there are massive

resource restraints on the public sector and that, after next year's comprehensive spending review, that picture is likely to look worse, rather than better.

251. Therefore, we are not being unrealistic about such a scheme but are trying to be creative about how it might be financed. The need to bring jobs here can be allied to the need to cut carbon dependency, which can be a win-win scenario for Northern Ireland. That needs leadership, which we would like to see coming from the Assembly and the Executive.

252. In our most recent response to the Programme for Government, we highlighted that the renewables sector in Germany supports 170,000 jobs. That figure is for renewables alone, and there are spin-offs from all the related technology development. We would like to see a little bit of that kind of job creation in Northern Ireland.

253. In answer to your question about secondary legislation, as I said, we would like to see primary legislation in the form of a Northern Ireland climate change Act with legally binding targets. Measures that could be considered for inclusion in secondary legislation include a tax on plastic bags, which has been very successful in the Republic of Ireland. Much of the task is changing the hearts and minds of the public — measures that look as if they will initially be painful usually turn out not to be a huge problem for people and become the normal way of doing things. It is worth thinking about whether we can get some quick wins on issues such as that.

254. We would like to see this Committee work with other Committees to ensure effective scrutiny on climate change across all Departments. I will also comment on the role of the UK Committee on Climate Change. When it reports, it will do so to the UK Parliament and the Northern Ireland Executive simultaneously. We would like that report to be presented to MLAs so that it is open to scrutiny and so that Northern Ireland's performance on the UK targets is openly reported in the Assembly. We would also like the Executive's response to that report to be presented to the Assembly, as that would provide a much broader and more open forum for scrutinising Northern Ireland's performance.

255. We would like to see both quantitative and qualitative measurement of climate-change impacts, because sometimes we will need to know not just the numbers but the case studies of how different types of people in different communities are feeling the impacts. We also suggest that public opinion be measured, because sometimes action is not taken because the public are deemed not to be ready. However, the public are sometimes more advanced than we imagine. Therefore, it is useful to have indicators of how people are thinking about climate change and how willing they are to make changes at any given time.

256. Finally, I emphasise the leadership role — we think that the Committee has a particular role to play in ensuring that the public receive accurate and credible information, and in building changes in public opinion. It was perfectly legitimate for politicians to lead the way in influencing public opinion and then legislate on issues such as drink-driving, domestic violence and the wearing of seat belts. It is even more important that the Committee take action on that issue and try to change how we as a society view what we need to do to address the problem.

257. The Chairperson: Frances, thank you for that comprehensive overview.

258. Mr I McCrea: I thank you for your presentation. For someone who claims not to be an authority on the issue, you gave us plenty of information.

259. At the start of your presentation, you mentioned some of the MLAs who had responded and said that credit was not given to people for taking the lead on climate change. I regard some of the steps that the community is taking to be more to do with efficiencies rather than climate

change. The knock-on effect of those steps benefits the environment. Funding is a major issue, and you talked about the comprehensive spending review and what future Budgets hold for Northern Ireland. I wonder from where we are going to get the money for energy-efficiency schemes. I agree that 100% of newbuilds should be energy efficient.

260. People want energy-efficient homes, because they think that they will save money by keeping heat in the home. Sometimes, I think that people overemphasise the climate-change element to such schemes, because, in reality, people are mainly motivated because they are saving money. One comment that you made about renewable energy was whether schemes would receive financial aid. That is the important part for me.

261. I have no doubt that that there are people — I have spoken to people — who are very much into the climate-change element and act for that reason. However, the majority of people acts out of self-interest. There are knock-on effects, including the financial aspect and the issue of renewable energy.

262. Ms McCandless: That is a very important point. In a sense, it does not matter why people are taking action, as long as they are acting. It is the outcomes that matter.

263. In a project across the road from our office in north Belfast, a group of community organisations have come together to reduce their carbon footprint. They have changed their electrical appliances, made their buildings energy efficient and changed their travelling habits, and they have saved a great deal of money as a result. However, they started to talk about the issue because they have a link with a school in Mozambique, where climate change is a big problem. Therefore, they acted for two reasons and got really tangible benefits. Some people would act for the former reason, and others for just the financial benefits, but, in a sense, the reason does not really matter.

264. Various creative ways are being explored to find the money. Jim Kitchen, for example, spoke about a mutual savings bond, which would, potentially, give a better rate of return than commercial savings products. There are also equity release schemes that allow homeowners to install renewable technologies and to borrow the cost against the equity in their properties. The outlay would be paid off as the savings in the bills come through, and, if legally viable, the debt could stay with the property rather than with the owner. All those options are being explored at present by people who know a lot more about them than me.

265. However, we are hoping to provide such creative solutions, because if we do not have the money, it is difficult to make the switch. We know that we might make savings in the long term, but there is still a need to be able to invest up front. It is a real shame that we have lost the grants that provided homeowners with up to 50% of the cost of installing renewable technologies, because many more people were, I believe, ready to act, and they would act again if they were given that little incentive. Putting in 50% of one's own money is still a great deal of money, but just getting a little push is helpful.

266. Mr McClarty: Thank you for that presentation. As you say, it does not really matter why people act, as long as they do act. I was interested in your statistical information and surveys, although those surveys probably have to be qualified. Most people will say that it is a good idea to do something about global warming. However, when it affects them, it is a completely different matter entirely.

267. One example is the erection of wind turbines — people are happy as long as they do not impinge on their view. We heard earlier that we should be seriously considering nuclear power. How many people in Northern Ireland would put their hands up for a nuclear power station in their area? Those statistical facts from the surveys must be taken with a pinch of salt.

268. Ms McCandless: You are absolutely right to be cautious about the surveys. However, it is interesting to see how many people have acted and put their own money into such schemes. When one sees the number of people who recycle, go out of their way to make lifestyle changes, or put their own money into renewable technologies, that gives a much clearer indication of what people are willing to do.

269. People have been shelling out of their own pockets to make a change on some of those fronts even without 100% grants. That gives a clear signal that people are ready to do something, and a little nudge and a policy framework that gives them an incentive to act would probably bring about a huge step change in what people are prepared to do.

270. Mr T Clarke: I agree wholeheartedly with what Mr McClarty said about some of the projects. I promised the Chairperson that I would not mention one such project again, so I will not mention it. However, I wish to mention another project.

271. You spoke about people investing their own money. We have a project outside Glenavy in which businesses want to invest their own money to make renewable energy from incinerating chicken litter, yet there are politicians in the Senate Chamber who cannot take the hard decision to support that application. Such a project would make a positive environmental contribution, but there are politicians present who could not support that.

272. The Chairperson: You are stretching the issue of climate change a wee bit there.

273. Mr T Clarke: It is incineration: energy from waste.

274. Mr Boylan: Thank you for your presentation. I also thank Mr Clarke, who always takes his opportunity to speak about that matter.

275. Public buy-in is needed — collectively as opposed to individually. Legislation can be set for guidelines, targets and the policy itself, and everyone may adhere to it, but we do not want to have to beat people into submission to get them to do so. In the past 18 months, there has been a strong awareness of the climate-change issue. That may not be the case in some Departments, but there has been an awareness in the rest of the public domain. How can the gap be bridged to incentivise people to try to address the issue?

276. Ms McCandless: An important first step is that, instead of saying do as I say, not as I do, an example should be set at the Assembly and in public buildings, schools and hospitals across Northern Ireland. The wind turbine that people see from the motorway as they drive past Antrim Area Hospital is an incredibly powerful example of that in operation in the real world in Northern Ireland. Such things change people's minds and normalises it so that becomes part of what we see around us all the time.

277. Practical steps can be taken, such as rates reductions for people who have good insulation or who have introduced renewable technologies into their homes. Those kinds of measures would not cost enormous amounts of money, but they would send out a clear signal. Small grants, through which a small amount would be paid from the Government purse, with the public paying the rest, could be the tipping point to get people to make a difference. Measures as simple as having bus lanes can help. As you know, when a bus whizzes past someone who is sitting stationary in their car, it sends out signals to people.

278. If people are surrounded by strong legislation that leads them to think that things are being done fairly, that the impacts are being felt by everyone and that Government are genuinely behind it, the small signals sometimes add up to a message that the world is changing and that people need to behave differently. If Government and business are making changes, people will

think that they should make changes to their lives. Not all of that costs a great deal of money: some of it is about setting an example; some of it is about showing what is possible; and some of it is about giving a little bit of seed funding to encourage people to go the extra mile.

279. Mr D Ford: Thank you, Frances, for that presentation. It was extremely useful to have input from a body such as NICVA, following on from the fairly detailed scientific content that we heard earlier. I remind Trevor Clarke that some of us are trying to find a more green solution to the problems with chicken litter than something that is only 15% energy efficient and might threaten the Ramsar status of the site.

280. Mr T Clarke: Fifteen per cent is better than nothing.

281. Mr D Ford: Some of us are looking for something better.

282. You referred to the paper that is being done by NICVA, ICTU and business groups on the "green new deal". You also talked about issues such as how fuel poverty should be dealt with. Will that paper address the issue of how fuel poverty will be dealt with if a true price is to be put on carbon? What is the timescale for that? I am looking for a few hints of what will be in that paper before I see it.

283. Ms McCandless: It has not been written yet, so I cannot give you too many clear hints. NICVA, ICTU and the CBI will bring it to the Economic Development Forum, of which we are a member, but it will come from the wider group that Jim Kitchen mentioned earlier, which includes energy experts, finance experts and strategic-infrastructure experts. The paper will be realistic in tackling issues of fuel poverty, because that will be a key issue for us. If we tackle energy as one of our first big carbon issues, we will have to think about fuel poverty.

284. I understand that a paper will be ready to go to the Economic Development Forum by the summer, if not before then.

285. Mr D Ford: It would be useful for us to see it as soon as we can.

286. You mentioned impact assessments. I agree that it is easy to have too many of those, but have you given any thought to how a climate-change impact assessment might operate alongside the other assessments that we need for public policy?

287. Ms McCandless: That is a really difficult issue, because one does not want to propose a hierarchy of impact assessments. However, any impact assessment must be meaningful. We worry that, because they are so numerous, many of the current impact assessments become tick-box exercises. The issue is too big and too complex for that to happen.

288. I cannot envisage exactly what the impact assessments would look like, because I am not an expert on how policy is made in each Department. However, they must be strategically positioned in the existing set of impact assessments and granted great importance. The impact assessments must be set in such a way that they are not merely a procedural exercise. They must ask difficult questions about what impacts — positive or negative — any policy or spending priority is going to deliver. Otherwise, they would be a meaningless waste of everyone's time.

289. Mr D Ford: In the presentation, you referred to the climate change unit in the DOE as being the centre of expertise. It was suggested earlier that energy responsibilities and climate-change responsibilities should be brought together under the one Department. What is your response to that suggestion?

290. Ms McCandless: This morning was the first time that I heard that suggestion, but, off the top of my head, I must say that it would seem to make sense.

291. The Chairperson: Frances, thank you very much for taking the time to be with us today. It was a very useful session.

292. Owing to time pressures, we must now move rooms. We will suspend momentarily and reconvene in Committee room 144, where we will hear from the Department of the Environment. Thank you.

The Committee was suspended.

On resuming —

293. The Chairperson (Mr McGlone): We are now joined by the permanent secretary of the Department of the Environment, Mr Stephen Peover; Mr Brendan Forde, who is head of the Department's climate change unit; and Mr Keith Brown, who also works for the climate change unit. You are very welcome.

294. We had a fairly extensive evidence session earlier. I do not know whether you and your officials were listening or whether you have been apprised of the details, but we had useful and informative discussions. It was certainly a learning curve for me.

295. We will now hear from the Department. The Department of the Environment's climate change unit works closely with the Department for Environment, Food and Rural Affairs (DEFRA), the Department of Energy and Climate Change (DECC) in London and with other colleagues in the devolved Administrations in Scotland and Wales. We have a summary of the Department's submission and a copy of the specialist adviser's comments.

296. If you were listening earlier, you will know that you have between 10 and 15 minutes to give an overview the Department of the Environment's position and then members can ask questions or raise queries.

297. Mr Stephen Peover (Department of the Environment): I know that the Committee is already running over time; I may not really need 15 minutes to cover everything. Brendan Forde will talk about the submission, which members will have had a chance to read. I heard a fair bit of the earlier sessions; however, Brendan and Keith listened to the whole session and picked up on some issues that we will comment on.

298. First, the Executive's key priority of encouraging economic development in Northern Ireland must be considered in the context of the Committee's broad terms of reference and how the issue of economic development, which a number of people have raised, impacts on environmental issues generally, from natural-resource use, to waste production, to climate change. Therefore, the issue is how that priority sits with the other priorities, such as avoiding — or adapting to — climate change. We welcome the Committee's input.

299. The Chairperson: What was your point in respect of that?

300. Mr Peover: How one reconciles continuing economic development with environmental priorities.

301. The Chairperson: Do you not mean to ask how the Government do that?

302. Mr Peover: Not just Government, but the question is how society can do that.

303. The Chairperson: It is usually Government that deals with such matters.

304. Mr Peover: Northern Ireland in the last three years has seen considerable underdevelopment of its resources. However, in contrast to that, we have seen some considerable expansion in economic development. There have been increases in construction, for example. We are now facing a recession.

305. The views of the Committee on Climate Change on the impact and costs of climate change are predicated on there being continued economic development over the next 20 years. However, there are a lot of economic variables involved in that. There are expectations in this society of change and development in prosperity after a period of 30 years of underdevelopment here. How will that be reconciled in the mind of the public with responding to climate change?

306. Some of the points that have been made to the Committee concerned people's attitudes. I do not know if any members were at the Northern Ireland Local Government Association (NILGA) conference last year in Derry. There was an Ipsos MORI presentation about polling of the public in England, whereby a vast majority of the public — more than 90% — recognised that there were serious environmental issues to be faced. However, when asked what they were personally doing to respond to those issues, less than 10% said that they were changing their lifestyles to respond to those challenges.

307. The Chairperson: Perhaps you did not hear all of it, but we heard positive things from businesses about how they were making savings and increasing their profitability by taking extra measures to help meet their commitments on climate change. It was very heartening for us to hear that view from businesses. We also heard from the voluntary sector about issues such as innovations, schemes and leadership. We are here today to listen to evidence from the Department in order to get an overview. I know that you and your colleagues are anxious to provide that overview. It would be helpful for us to hear that from the Department.

308. Mr Peover: I am trying to pick up on some of the points that were raised in discussion with the Committee. Frances McCandless from NICVA raised the issue of people changing their lifestyles. That is a key component of any environmental change, and that must be borne in mind. However, there is evidence from a respected polling organisation that people will say that they recognise the problem, but very few people are taking action to respond to that problem.

309. The Chairperson: We will hear ample evidence, from all sorts of quarters. When the Department has time to consider that comprehensive evidence, it will have plenty of time to respond. We hope that it does respond, and we will welcome that response, but today I would like to remain focused on the submission that the Department is making to the climate change inquiry.

310. Mr Peover: I thought, having heard the earlier submissions, that you wanted us to respond to them.

311. The Chairperson: No; I was contextualising it for you. You still have 10 or 15 minutes if you wish to give us an overview.

312. Mr Peover: I shall let Brendan discuss the submission that we sent to the Committee, and then we will be happy to take questions.

313. Mr Brendan Forde (Department of the Environment): The submission to the inquiry is fact-based, in the context of the way in which the Department of the Environment and Government generally in Northern Ireland respond to the climate-change agenda. The key European commitments were mentioned in earlier evidence sessions. The position that is agreed at the UN conference in Copenhagen in December will be critical.

314. DOE, through its UK connections in relation to policy, is in regular contact with the Department for Environment, Food and Rural Affairs and the Department of Energy and Climate Change in relation to the EU emissions-trading scheme, and other European initiatives.

315. The targets have been well rehearsed this morning, including the 20% target to which the EU has already committed, and the 30% target, if there is a deal at Copenhagen. A round of negotiations took place in April, dealing with the subject of adaptation, the importance of which was mentioned in some of today's latter evidence sessions. A White Paper on how key strategic aspects of adaptation should be progressed has been produced by the European Commission, and is currently under consideration by the Council of Ministers.

316. To put all of that in perspective, the role of DOE is in co-operation with Whitehall, which takes the lead. All of the European policy developments, discussions and consultations take place at a member-state level. Whitehall takes the lead. The next tier of commitments and drivers that provide context for our policy development comes from Whitehall policy commitments. DOE has been involved in UK discussions on all aspects of the UK Climate Change Act 2008 — which has been referred to in great detail — and all of its component parts, including the independent Committee on Climate Change.

317. As was referred to by the Committee on Climate Change this morning, we have constructive arrangements and regular meetings at which we share what is happening in Northern Ireland, and the committee tells us where its analysis is going and what it is intending to do.

318. Another aspect is enabling powers for trading schemes. Part of the UK Climate Change Act is provisions that allow the development of the carbon reduction commitment, which is a new capping and trading scheme that will potentially run from 2010. We have engaged at official level with the committee on a number of occasions in relation to the various consultations there have been on that.

319. In a sense, I am repeating what has been outlined by the committee this morning. However, coming down the hierarchy from Europe to the UK level and then to the Northern Ireland context, the key target for us, which — it is important to say — is not a statutory target, is that the Northern Ireland Executive are committed to reducing greenhouse gas emissions by 25% against 1990 levels by 2025. That is the collective responsibility of the Northern Ireland Executive. The Executive gave policy agreement to the Climate Change Act, which was also given legislative consent by the Assembly. The latest consultation on the carbon reduction commitment has indicated that the Executive are committed in principle to bringing in the UK carbon reduction commitment, which is the new cap and trading scheme.

320. Those are all the big-picture elements for us. The DOE's contribution to those is the day-to-day relations that we have with the Committee on Climate Change, of course, and some of the outworkings in respect of adaptation in relation to a new UK risk assessment that will produce its findings by 2011. Northern Ireland officials are closely involved in that process at the minute. The ultimate outcome should be an adaptation programme for Northern Ireland. That is timely and, as the Scottish and Northern Ireland Forum for Environmental Research (SNIFFER) report referred to earlier was produced in 2007, will be helpful in updating progress on a natural five-year cycle.

321. We input to policy developments in England, as I have referred to. A particular area of responsibility is the greenhouse gas emissions inventories. We are responsible at the Northern Ireland level for the production of figures in consultation with DECC and some outside consultants. We have also done some independent work to try to project those emissions out to the 2025 timeframes, so that we can monitor where we are against those.

322. With respect to adaptation, we were a party in the production of the SNIFFER report that was produced in 2007. Our involvement in adaptation has included setting up the Northern Ireland Climate Change Impact Partnership. As has been said today, that group has provided independent evidence of its own. There are also various planning aspects that DOE is involved in, which are not particular to my unit within the Department of the Environment. However, as you will appreciate, matters such as PPS 18 on renewables and PPS 15 on flooding are relevant and pertinent to our role.

323. In conclusion, there are big EU and UK policy drivers. The DOE makes a contribution towards Northern Ireland's efforts to meet its obligations. Thank you.

324. The Chairperson: Is that it?

325. Mr B Forde: Yes.

326. The Chairperson: Are there any questions from members?

327. Mr Boylan: Thank you for the short presentation. Stephen, having listened to your initial comments, I suppose it is all about attitude — it is about being positive or negative. I will put it in positive or negative energy terms, as we are talking about climate change. You talked about economic growth. I discussed that in relation to some of the earlier presentations, and I am glad that you referred to PPS 18, because you are talking about economic growth in a situation in which there are proper policies in place.

328. The Department should take the lead on that. I might be totally wrong, but are you suggesting that, in the current economic crisis, we should be talking about climate change as opposed to economic growth and about whether one overrides other? That was my interpretation. The Department's response has been pitiful. The Chairperson and I are the only two Committee members who have met you. I do not think the Department was going to make a response on that matter, but perhaps I am wrong.

329. The Chairperson: The issue has been raised on a number of occasions.

330. Mr Boylan: It has been raised on a few occasions.

331. Bearing in mind what you said about economic growth, let us take the Department's role for what it is and look at the issue from a policy point of view. We are working on policies. The Department's responsibility is to develop policies that the Committee can then look at. We should be cognisant of the need for newbuilds and of promoting that throughout the whole of the North. Would you not agree that the Department, along with the Committee, has a key role in trying to drive that?

332. I am slightly disappointed; however, you are right to say that you are entitled to your opinion. It is about attitude. Whether we like it or not, the public clearly recognise that there are issues. Sometimes, it is necessary to incentivise people; it is about the carrot as well as the stick. We need to look at that, and we must work in tandem. Thankfully, the Committee's inquiry will be able to contribute in some way.

333. Mr Peover: Perhaps I confused you, Chairperson. I was trying to say that the Executive have an overall priority to enhance the economic development of Northern Ireland and that that needs to be reconciled with proper levels of environmental protection in respect of land use and resource use. That has to be set in the context of a sustainable development strategy, about which Jim Kitchen spoke. There is a broader canvas against which that is painted. The issue is about persuading people that economic development can be reconciled with social and environmental protection and that those things can be pulled together. That is what I was trying to say.

334. The Committee's inquiry will be particularly helpful in bringing those issues to the fore. It will also help to persuade those people who recognise that there is a problem but who are not yet prepared to do anything about it, personally or professionally, that action is necessary. That is a real feature of life: people will the end but they may not will the means. They see what they want to do, but they are not prepared to make the sacrifices to get to that point.

335. We mentioned a couple of planning policies in particular; however, the handling of planning applications in general in Northern Ireland, and the policy that underpins those, throws up real issues for all of us. You are quite right to say that planning needs to be addressed as part of the process, and we recognise our responsibility as a Department to deal with that.

336. In addition, a number of witnesses who spoke today emphasised the cross-Executive nature of this whole business. This is a matter for all Departments, not just one. We cannot speak on behalf of our colleagues in the other Departments; however, we will work with them. We have the responsibility of co-ordinating PSA 22. However, a number of other Departments are responsible for achieving the objectives set out under PSA 22.

337. A number of other Departments contribute in general to the Programme for Government objectives of dealing with the current situation. That is the rationale behind our submission. We are not trying to limit our responsibilities; rather, our Department is directly responsible for a lot of areas. However, we are part of a wider system.

338. Normally, as happens with inquires, the Committee will produce a report, to which we will respond. In that sense, it is not appropriate for us to try to limit the area of operation by saying, from the outset, what our policy is or what the limits within which we operate are. We will certainly take on board the Committee's report in due course. We will give it serious consideration and respond to it. We do not want to try to pre-empt the report's findings by commenting in detail about we think the situation is or should be.

339. The Chairperson: I presume that you will have views on the situation, as we request them.

340. Mr Peover: Sorry; which situation?

341. The Chairperson: You have just said that you do not want to pre-empt any views that we might have.

342. Mr Boylan: I was not confused by your comments either, Stephen, and, with no disrespect, I am sure that the public will not have been confused.

343. The Chairperson: I was not confused either.

344. Mr Boylan: We see it as a cross-departmental issue; one only has to follow the media to see that. We can do our bit to alleviate the problem by looking at the Department's policies, and, in the round, we should be looking at that.

345. Mr Peover: The Department has relevant policies. We deal with environmental protections, areas of special scientific interest (ASSIs), biodiversity and planning policy. The Department acts as an organisation in its own right on a range of policies. We also work collectively with other Departments on broader issues such as climate change. As a Department, we have few levers in affecting that; other Departments have more levers.

346. Mr Boylan: In your opening remarks, you should have talked about ASSIs in regard to climate change as opposed to economic growth. That would have been a more appropriate starting point.

347. The Chairperson: Your climate change unit is pivotal to the issue. You touched on that earlier. It would be useful to hear what initiatives you take with other Departments on climate change and in addressing their remit. I know that Brendan Forde's unit is well-informed on that and has collaborated well with other jurisdictions in informing them and driving the issue. The climate change unit at DOE has responsibility for those matters. Because of the cross-cutting element, I am anxious to hear how, as the host Department with responsibility for climate change, you reach out to other Departments and how you take the initiative on those matters with colleagues on the Executive and with their departmental remits.

348. Mr Peover: Frances McCandless mentioned the Northern Ireland Climate Change Impacts Partnership. We are involved in that with other Departments. We act as the link with sister Departments in Whitehall. We are also responsible for aspects of the PSA. The Executive have agreed a mechanism for reviewing and taking forward the commitments that were made under the Programme for Government. We will act as the host Department on PSA 22 and bring together other Departments to contribute to that to ensure that progress is made on the cross-cutting objectives.

349. The Chairperson: I am trying to establish not what will be done but what has been done up to now. The climate change unit has been in place for a considerable time. I am sure that Mr Forde can provide practical examples of the initiatives that you take with the other relevant Departments to advance and champion the cause of climate change as it is your remit and responsibility to do.

350. Mr B Forde: A recent example is the use of land for agriculture. We are conscious of the report by the Committee on Climate Change, which will provide further analysis on that issue. We are in strong contact with our colleagues in DARD and in the Agri-Food and Biosciences Institute (AFBI), which is the science part of DARD, over the research that they are doing. We are involved in connecting them to the researchers in DECC and the Department for Environment, Food and Rural Affairs, who are equally progressive in some of those matters.

351. The Chairperson: What does liaising and co-ordinating with scientists mean to me, the ordinary "five eight"?

352. Mr T Clarke: What does the Department's day-to-day activity directly have to do with the climate change inquiry?

353. The Chairperson: I am trying to establish —

354. Mr T Clarke: We seem to be wasting a lot of time on what the Department is doing, rather than feeding into what the inquiry is about. I am getting a bit frustrated. This meeting has run over time. This is the fifth presentation, and seven are scheduled for next week, so I will not certainly not be attending that meeting.

355. The Chairperson: As Chairman, I am entitled to seek detail from the Department.

356. Mr T Clarke: I am here to listen to an inquiry. I am retiring at this stage.

357. The Chairperson: It is an inquiry, and you are entitled to do that. We are trying to establish from the Department the practical outworkings of what is going on. Mr Forde, please continue. I am sorry for that intervention.

358. Mr B Forde: In practical terms, the Department's work is concerned with trying to reduce emissions from agriculture, which represents well over 20% of emissions in Northern Ireland. That is far greater than the average amount of emissions in the UK, where emissions from agriculture represent around 7% of emissions.

359. Therefore, we are keenly interested in finding more efficient ways to till the soil and capture greenhouse gases in the soil through various horticultural approaches. That would benefit not only the farmer through greater efficiency, but the environment through lower emissions.

360. With regard to contacts with other Departments, we are aware that this is a live agenda as far as the Committee on Climate Change is concerned. We realise that there is a possibility of a win-win, with financial efficiency and environmental benefits. Due to the fact that agricultural emissions represent such a high proportion of Northern Ireland emissions, achieving targets for carbon dioxide emissions in agriculture would have greater impact and benefit than if the same measures were introduced in England.

361. The Chairperson: Now that climate change has become an issue, what about Departments such as DETI with regard to renewable energy technologies?

362. Mr B Forde: The Department is in daily contact with DETI about various aspects of the EU climate change and energy package, a large part of which is concerned with renewable energy technologies.

363. Mr Peover: We are also in discussion about the SNIFFER report on adaptations. The DOE commissioned the SNIFFER report, which is available to all Departments. That report contains recommendations that are directed at Departments and at others.

364. The Chairperson: Forgive my ignorance, but who follows up on the SNIFFER report and makes sure that its recommendations are carried out?

365. Mr B Forde: Historically, that report was part of the sustainable development strategy, and DOE's role was to provide advice on what the impacts of climate change would be across the various sectors. As part of the sustainable development implementation plan, it was identified that Departments and public bodies had to take that advice and apply it in a way that best suited their own business requirements in the knowledge of what those impacts might be.

366. Mr D Ford: We have just had a useful example from Brendan when he talked about working with DARD on influencing or advising. I am concerned about the coherence of approach. As I understand it, the Programme for Government simply commits the Executive as a whole to a 25% reduction in carbon emissions by 2025. Apart from the fact that that is an inadequate target, it is also not a phased target.

367. Brendan said earlier that the Programme for Government, quite correctly, is non-statutory and requires collective Executive responsibility. Whose responsibility is it to ensure that we get anywhere with that target?

368. Mr Peover: It is the Executive's responsibility as a body corporate. Reporting mechanisms have been put in place to require Departments to respond, and to say what they are doing to implement the commitments in the Programme for Government.

369. Mr D Ford: As I understand it, your responsibilities are to report on what actions the DOE has taken to meet that target.

370. Mr Peover: There is a bit more to it than that. The DOE has oversight for certain public service agreements. Each PSA is allocated to a lead Department, and we have responsibility for those. The Executive have only recently agreed a mechanism under which the lead Department will take a particular role in monitoring and implementation, and bring together the various Departments that are part of the process.

371. Mr D Ford: You said "monitoring and implementation", and that is where I am getting lost. Can you monitor what other Departments are doing?

372. Mr Peover: Yes, and report.

373. Mr D Ford: You can report. Is it the case that you cannot enforce anything even though this particular PSA is your Department's responsibility?

374. Mr Peover: That is the responsibility of the Executive. The Executive have given a commitment that they will do something, and that is the mechanism by which they do it. We will report to the Executive, and if there is not sufficient progress and implementation, then it is for the Executive to decide what needs to be done next.

375. Mr D Ford: Is that the same Executive that took responsibility for sustainable development away from the DOE and tucked it into a corner of OFMDFM?

376. Mr Peover: I believe that that was done by the Secretary of State, rather than the Executive.

377. The Chairperson: You say that if you conclude that something has not been done satisfactorily by a Department, it then becomes the responsibility of the Executive. How does that mechanism work to bring that situation to the Executive's attention? Is that your responsibility?

378. Mr Peover: No. OFMDFM gathers the monitoring returns on all of the PSAs from each lead Department, and it will then advise the Executive on the adequacy or otherwise of Departments' responses.

379. The Chairperson: Have you carried out a monitoring return recently?

380. Mr Peover: Yes; we do them on a quarterly basis.

381. Mr D Ford: The DOE has responsibility for the co-ordination of the PSA. Does that include giving specific advice to other Departments and other public agencies on how they should play their part in reaching the 2025 target?

382. Mr Peover: Yes, where it is relevant to do so. The main purpose of Brendan's unit is to give advice.

383. Mr D Ford: I understood the example that Brendan gave of advice to DARD was at a more general level. Who tells DRD that its responsibility is to cut carbon emissions by x percent by 2015 as part of the overall 2025 reduction target, which we trust will be somewhat larger than 25%?

384. Mr Peover: There is a ministerial responsibility; there is an agreed strategy in the Executive, and each Minister is then responsible for his or her Department's action under the PFG. Therefore, it is a Minister's responsibility to drive activity in his or her Department. We will certainly provide advice, but it is not for us to drive another Department's work.

385. Mr D Ford: I accept that. However, the problem is that it does not appear to be anyone's responsibility. I appreciate the difficulties that you have as permanent secretary of the DOE, but I am trying to establish what is not happening.

386. Mr Peover: We operate within the political system that exists; we will work the system to the best of our ability, and we will certainly support our colleagues. However, the Northern Ireland Executive has corporate responsibility on the issue, because of the structures that we have.

387. Mr D Ford: Are you aware of that corporate responsibility being assumed through the setting of specific annual or five-yearly targets towards 2025 anywhere within the structure of Government, other than the relatively informal advice that Brendan's unit gives?

388. Mr Peover: No, but I am not close enough to other Departments to know their activities. In earlier evidence to the Committee, reference was made to the work being done in DETI on the energy strategy. Such work is an important element, but DETI is the Department to comment on energy matters and DRD is the Department to comment on transport.

389. Mr D Ford: As permanent secretary of the Department with overall co-ordinating responsibility for this particular PSA, you do not have that level of detail and cannot tell me where anyone in the system of Government does have that level of detail?

390. Mr Peover: The Executive only recently agreed the arrangements for monitoring, and they are yet to be fully embedded. When those arrangements are embedded, I should be in a better position to tell you how Departments are progressing against their PSA targets.

391. Mr D Ford: If the embedding of those arrangements happens at the same speed as the appointment of a sustainable development commissioner for Northern Ireland, we will not hold our breath for progress during the course of this inquiry. However, thank you for your help.

392. The Chairperson: In your submission Mr Forde, you referred to obvious EU and UK policy directives. I know about the SNIFFER report, but do you have any policies on climate change that have been initiated here, as opposed to those that are done in collaboration with the UK or EU?

393. Mr B Forde: Although it is not the responsibility of my Department, the target for the Government estate to be carbon neutral by 2015 is a Northern Ireland target that was set in advance of similar commitments that have since been made by other parts of the United Kingdom. That is an obvious example.

394. Mr Peover: Another commitment in DOE is to be carbon neutral by 2012, rather than 2015. Although it is a broad issue, waste management is important in that context, because the recycling of waste is an important element in the reuse and prevention of waste. We were the

first region in the UK to have a comprehensive waste strategy, which has been revised. We were the first region to have comprehensive waste-management plans for each of our areas. All the Departments have waste-management action plans, and we bring those together to feed back into the Strategic Waste Board, which the Minister chairs. Therefore, there are examples where we are ahead of other regions in the UK in our actions.

395. The Chairperson: We heard earlier from the Committee on Climate Change, and I am sure that Mr Forde listened to that, because it was very interesting. Will the DOE ask the Committee on Climate Change for assistance in developing the sectoral targets for Northern Ireland?

396. Mr B Forde: As the Committee on Climate Change made clear, that facility does exist.

397. We have to compete against UK, Scottish and Welsh demands. Although it may not have been referred to in the evidence, at the moment matters relate mostly the UK situation in relation to carbon targets and so on. However, we have not closed our minds. We have not yet made any specific requests, but I imagine that we will in the future.

398. The Chairperson: That answers my question. Thank you for your time today, Mr Peover. I thank you and your officials for being with us.

14 May 2009

Members present for all or part of the proceedings:

Mr Patsy McGlone (Chairperson)
Mr Cathal Boylan (Deputy Chairperson)
Mr David Ford
Mr Tommy Gallagher
Mr David McClarty
Mr Ian McCrea
Mr Daithí McKay
Mr Alastair Ross
Mr Peter Weir

Witnesses:

Mr Mark Ennis	Confederation of British Industry
Mr Nigel Smyth	
Ms Lynsey Orr	Energy Saving Trust
Mr Noel Williams	
Mr Charles Anglin	British Wind Energy Association
Mr Gary Connolly	Irish Wind Energy Association
Mr Michael Walsh	
Mr Michael Doran	Royal Institution of Chartered Surveyors
Mr Liam Dornan	
Mr Tom McClelland	
Ms Nuala O'Neill	Institution of Highways and Transportation
Mr Herbert Bailie	
Mr Geoffrey Perrin	
Mr Philip Robinson	

Mr Gavin Rafferty
Mr Brian Sore Royal Town Planning Institute
Mr David Worthington

399. The Chairperson (Mr McGlone): The Committee has with it Confederation of British Industry (CBI) director Mr Nigel Smyth and Mr Mark Ennis, who is a director of Airtricity, but who is today representing the CBI. Both are very welcome.

400. Members already have the CBI submission, which they have read. You have 10 to 15 minutes to provide the Committee with a further, supplementary overview of the CBI's perspective, as a very important player, on economic and employment prospects, job creation and other matters — the good things about the economy. Some very refreshing evidence from representative groups has been heard, particularly last week. I am looking forward to hearing the CBI's evidence. I thank both witnesses for taking the time to attend.

401. Mr Nigel Smyth (Confederation of British Industry): I am the director of the CBI; my colleague Mark Ennis is a previous CBI chairman and a current council member. He is also director of communications at Airtricity. We hope to keep our opening remarks to less than 10 minutes, after which we will answer questions. I welcome the opportunity to be here.

402. The CBI has taken the issue of climate change very seriously. Our task force in 2007 resulted in the major document to which the Chairperson has referred. The CBI believes that climate change is a serious risk and, as such, business wants to do everything possible to mitigate that risk. We believe that the UK's 2030 targets are achievable at a manageable cost, but the 2020 targets will be difficult to achieve. It is also fair to say that many of the initiatives and responses that will be required in the next 10 years will deliver an economic benefit, particularly around the area of energy efficiency. Our detailed work includes cost curves that illustrate the most economically effective return and the most costly initiatives that are required.

403. An area of the CBI's work to which I will return later involves road maps. We are delighted that the Committee has identified that in its terms of reference. We have an international working group, we have an adaptation group, we are looking at the whole of carbon reporting and, as I said, we are looking at our recently published road maps.

404. From the perspective of Northern Ireland business, another key driver has been concerns about possible cost rises and the volatility of fossil-fuel prices. In the whole area of peak oil, there is very strong evidence. We have experienced that in the past 12 months. We are in the middle of the worst recession for six decades, yet oil yesterday cost more than \$60 a barrel. Many members of the CBI are questioning where oil and gas prices will be when we come out of this recession in two to three years' time. Northern Ireland is very vulnerable; we import approximately £2 billion worth of fossil fuels a year. There is a significant risk and dependence upon those fuels.

405. Our submission emphasises the importance of the Executive focusing on those areas that they can influence. There are particular challenges in Northern Ireland. The transport sector has seen a significant growth in car ownership and use in recent years. The power sector, although a challenge, presents significant opportunities, particularly for onshore wind projects.

406. Interestingly, at a UK level, the CBI did not feature agriculture, but, clearly, it is a much more significant part of the Northern Ireland economy that probably faces significant challenges in how it addresses its emissions. Difficulties in the agriculture sector may mean extra work must be done in other areas. We believe that targets must be set in Northern Ireland. We must

monitor our existing position, because in order to take effective action we must know where we are going and what we are trying to achieve.

407. I referred to the road maps that we have established. I have circulated a summary document to the Committee. In the past four weeks, the CBI has published on its website four very detailed road maps covering four key areas — transport, power, buildings and industry. In total, those will save about 117 million tons of carbon across the UK. Transport, power and buildings are very much the biggest chunks. Hopefully those road maps will be helpful to the Committee. Colleagues in the CBI nationally can offer further help and technical assistance to the Committee.

408. As we state in our submission, boosting renewable energy in the energy mix is critical. Likewise, energy efficiency must be significantly increased across the building sector, whether that is in domestic buildings, in commercial buildings or across the Government estate. In the area of transport, 50% of the reductions that are to be made by 2020 are likely to come from technological developments in the car industry and the use of biofuels, and a further 30% will come from eco-driving and a greater utilisation of public transport.

409. We suggest that the Assembly and the Executive work with the UK Committee on Climate Change on the issue of agriculture. The CBI has not done much work in that area. We highlight the area of public procurement as a key area, able to drive change. We highlight the opportunities that the low-carbon economy creates for industries in Northern Ireland and the importance of having the right skills base to support the development of that industry.

410. It is important that we move to a low-carbon future in a cost-effective manner. From a business perspective, Northern Ireland's competitiveness must be maintained. The energy-efficiency arena offers opportunities for businesses, for consumers and even for Government. Even in the next few years, we need to be considering the longer-term consequences. After 2020, as the whole power-generating sector becomes low-carbon to achieve the targets for 2030 and beyond, a significant amount of electrification will be used in the heating of homes and for transport. In the next few years, thought will need to be given to planning for that.

411. Mr Mark Ennis (Confederation of British Industry): By 2030, Europe will be dependent on imports for 95% of its oil, 85% of its gas and 60% of its coal. We are at the end of a long gas pipeline from Russia, and we are increasingly reliant on gas as an environmentally friendly fossil fuel. Therefore, it is imperative that we develop our natural resources, which are renewable. Some people will say that I am bound to say that because I work for Airtricity, but I am not here to represent the company; I am here as a businessperson in Northern Ireland.

412. I am interested in delivering whatever energy resources we can, first from a security standpoint and also from that of climate change, and doing so in a cost-effective way. There are a couple of keys to that. It requires the setting of targets by sector. Mr Smyth has mentioned the main sectors. Northern Ireland will face a challenge in meeting any improvement in the agriculture sector and even in the transport sector, because car usage has increased enormously in recent years.

413. Even with the introduction of electric cars, the use of biofuels and so on, there will still be a huge challenge. That challenge will fall to two sectors: the power sector and the efficiency sector, most importantly in buildings. Those challenges must be taken up to encourage investment, given that we are now competing across Europe in trying to encourage investment in climate change.

414. For instance, we have made a number of presentations to the Centre for Competitiveness to encourage Northern Ireland businesses to get involved in the renewables sector. To

encourage that, we need clear goals from Government and clear cross-departmental and cross-party leadership, and we need a clear regulatory framework, whatever it is to be. We have some concerns that some of the regulations that are being put forward, particularly by the Department of the Environment, will not be conducive to achieving the lowest-cost delivery of those targets.

415. The Chairperson: Can you expand on that last comment?

416. Mr Ennis: Planning policy statement (PPS) 18 is being delivered to the Assembly, and it has supplementary planning guidance that effectively puts a constraint on the height of wind turbines. Effectively, that means that a piece of legislation that is closely focused on one particular aspect condemns Northern Ireland to inefficient generation, because that is what removing height causes. Many of us may be familiar with the turbine in Bangor. If you stand under that, or even a couple of miles back from it, and look at another turbine in a different context that is 20 m higher, you will not be able to tell the difference. All turbines are substantial structures, so that constraint is unhelpful.

417. The Chairperson: We shall probably hear more about that in the next submission. Thank you both for your presentations.

418. Mr Boylan: The car industry is a multi-million-pound industry. There are 900,000 private vehicles in the North. In trying to lower emissions, how can we encourage people off the roads and onto public transport? Can you elaborate on how we can take that forward in the next 10 or 15 years?

419. Mr Smyth: As I mentioned, we have produced a detailed summary on transport. I will pick out a couple of figures from that; for example, 50% of reduction in fuel emissions will be driven by technical development in the car industry. We have moved from 198 grams per kilometre in 1997 to around 150. The target for 2020 is 98 grams per kilometre. That will take a certain amount of carbon out of emissions. There will also be a 5% or 10% use of biofuels.

420. Certainly, I accept that we must encourage more people onto public transport. We have stated in various submissions that we support public transport. However, it must be safe and affordable. We strongly support the rapid-transit system that has been proposed for Belfast. Clearly, that must be done, and efforts and resources must be focused in urban areas where the population is concentrated. Therefore, you must focus resources at Northern Ireland's key cities in order to bring that modal shift into play.

421. Other transport issues include vans, commercial vehicles, low-rolling tension in tyres, and so on. Several other technical developments are coming along. Again, Government procurement can insist on and try to encourage some of those required behavioural changes. Beyond 2020, what we are looking at is hybrid electrification. We have seen a strong commitment to electrification in the Republic of Ireland. Northern Ireland needs to think about building the right infrastructure now to support that and the costs that will be associated with it.

422. Mr Ennis: To introduce electric cars, an infrastructure must be rolled out that will allow users, effectively, to plug in and play — whatever happens to be the design of the car. A number of companies, including my parent company, Scottish and Southern Energy, have brought together industry members such as Stagecoach and Arriva — a range of players — to start to develop and examine properly electrification of transport.

423. I recommend that instead of trying to reinvent the wheel, Northern Ireland should feed off what is being done elsewhere and try to adopt it here. There are many opportunities for local industry. Northern Ireland has some of the best electronically literate brains in the United

Kingdom. We should try to apply that knowledge, create business from it and join that type of group.

424. Mr Boylan: You have focused on urban areas where there are large populations, which is fair enough. You say "go nuclear", which, obviously, does not apply to Mr McKay and me. You are correct that many young people here are trained to work with new technologies and in innovative ways. We encourage that. What is the situation as regards working from home in rural areas? Where do we stand on broadband, decentralising jobs and encouraging people to work from home? Where do you see that in the future? What can you offer?

425. Mr Smyth: We have commented in our reports that during the next five to 10 years, homeworking will increase. There is no doubt about that. Broadband is well positioned for that in Northern Ireland. Clearly, we need to move to the next generation. We certainly accept that homeworking will increase, which will take demand off vehicles.

426. We also need to ensure that we have the right information. For example, I suggest that it is much more efficient for four people to travel from Magherafelt to Belfast in a hybrid car than to use public transport. A bus may travel to Belfast at full capacity in the morning, but return empty. That is merely speculation; I do not know the numbers. We must get a better understanding of the numbers before we make decisions. Clearly, we support trying to get people to use public transport. I referred to urban areas because those areas have the population density to make that meaningful. Having buses travelling around the countryside relatively empty does not sound particularly efficient. Again, we need better information on that in order to be able to understand the implications.

427. Mr Gallagher: I agree with you about the importance of a low-carbon future. You went on to talk about opportunities. [Interruption.]

428. The Chairperson: Someone's mobile phone is on. Please switch off all mobile phones, because they interfere with the sound system. I remind you that the proceedings are being recorded.

429. Mr Gallagher: You talked about targets and opportunities for business and Government. Will you elaborate on the opportunities for business in a low-carbon future? You also mentioned leadership. All organisations have to improve all the time. What are your thoughts on the Assembly's leadership on the development of that low-carbon future?

430. Mr Smyth: The CBI has not done a lot of detailed work on business opportunities. We are aware of the work that Invest Northern Ireland has done, and we referred to that in our submission. Many companies in Northern Ireland are involved in low-carbon industries. The most obvious are the likes of Harland and Wolff and Glen Dimplex. A range of small companies in Northern Ireland are also involved in low-carbon industries. There is also a significant amount of research ongoing.

431. We would like to see opportunities for all of those. There is not a week goes by that I do not receive an email about a low-carbon-related event. We are running our own event next week, which will be attended by representatives from 40 companies. The Carbon Trust and other organisations are also involved in looking at ways of bringing those companies together and how they can develop and take advantage of the market opportunities that will be developed in the years ahead.

432. Mr Ennis talked about leadership. There needs to be a firm commitment that we are serious about the direction in which we are going. Reducing carbon emissions is a cross-departmental issue, and buy-in from many Departments is required, particularly if we are going to do it cost-

effectively. We cannot have a situation where some Departments go off on a strong tangent and other Departments are reluctant to move at the same time. Competitiveness is key, and whether that is achieved will depend on how we invest in renewable energies, for instance. It is imperative that planning policies that are supportive of developing wind power are in place, because we have potential for competitive advantages, and we need to make the most of those.

433. Mr Ennis: On 19 May I am delivering a talk on job opportunities that will arise from the climate change requirements. I can give you a couple of examples, but I will be happy to submit my presentation to the committee, if you think that that would be helpful.

434. The Chairperson: When and where is your event?

435. Mr Ennis: It is a breakfast seminar on 19 May. People usually think that it is about the building of turbines. It is wrong to think that, because there are lots of people doing that already. There are a lot of things inside and around a turbine. For instance, one of our local companies, Lagan Construction, does a lot of good work and is probably one of the leads in building roads around wind farms.

436. Local companies are involved in the development of new waste-treatment facilities that do not involve incineration or landfill. I am involved with Re3, which is a new autoclave technology that is driving new development. There is lots of that. I know that you are pressed for time this morning, but I will be happy to deliver my presentation to the Committee.

437. The Chairperson: Last week, we were provided with riveting information about the innovation and leadership that is being shown by the private sector, when, on the other hand, the public sector is dithering and not co-ordinating its efforts or even being aware of what to co-ordinate. We heard that Michelin in Ballymena cut its energy use by 27% and saved over £2 million. Pritchett's in Newtownards invested £1 million in energy-efficiency projects, and made annual savings of £2 million by cutting its CO2 emissions by 70%. We heard that from the Sustainable Development Commission. That is innovative work, and it is a win-win situation. It is refreshing and enlightening to hear that.

438. Mr Ford: I certainly think that the road map is an extremely useful document. Unfortunately, so much of what the CBI does is UK-wide, and we are keener to hear about the Northern Ireland opportunities. As regards the climate change targets, you said that the agriculture industry and the high dependence on private cars are problems in Northern Ireland. Have you done any work on achieving gradual targets of 2% or 3% per annum, as opposed to just setting targets for 2012 or 2020?

439. Mr Smyth: Our summary document is split into short, medium and long term. We have policies for most of these issues for 2010-12, 2017 and 2018 respectively. That is the stance that we have taken. I accept that those targets are UK-focused and that the references to nuclear power are not applicable to Northern Ireland. However, in the longer term, nuclear power might be used in the next 10 years in Northern Ireland, so do not rule it out. We have not got the resources locally to do more detailed work at a local level. Those phased targets are now available publicly.

440. Mr Ford: Leaving aside the issues of nuclear power and onshore wind energy, which has already been established here, has any work been done on the other renewables that will be introduced over the next 10 to 20 years in Northern Ireland?

441. Mr Smyth: We have not done any work on renewables. I am conscious of speaking out of turn; however, some of the other witnesses today might mention a group that is looking at how to make buildings in Northern Ireland energy efficient. Government will need to invest

approximately £300 million per annum for 10 years. That will create 9,000 jobs, cost £2.7 billion and deliver an economic return of £3.4 billion. The big issue is how to finance it. How do you get people to invest in cavity wall insulation — payback for which takes between three and four years — or other forms of insulation? There are a lot of small technical barriers.

442. On the way here, I was telling Mr Ennis that I finally got round to putting cavity wall insulation in my house last year. That work is subject to control under building regulations, but I just went ahead and did it, because I could not be bothered with the hassle of that. There must be hundreds of other people thinking that, too. It is nonsense; lots of small barriers prevent people from making very sensible decisions that will get them attractive paybacks. The payback for some other renewable products takes significantly longer, and we need incentives, such as reduced rates and various things, to try to encourage a change in behaviour.

443. Mr Ennis: I am more attuned to what is happening as regards renewables. From a Northern Ireland perspective, after onshore wind, offshore wind is probably next in line, and wave or tidal power is after that. Northern Ireland is 10 years or more away from using wave and tidal power. I am quite close to a number of developments in that field, and the production of such a facility is probably 10 or 12 years away. In the short term, we should focus on wind energy. However, we also have tremendous marine resources and good institutions.

444. Leadership is about pulling together the intellect that is tied up in our universities with the business and political community into a single focus. I think that we can deliver and be world leaders in a number of technologies.

445. The two big differences generally between the UK and Northern Ireland are the agriculture sectors, which we made reference to, and the transport sectors, because we have a young population who drive more cars. Those differences mean that the power sector and the building-efficiency sector will have to absorb and meet the required policy targets. The initiatives that Mr Smyth mentioned and the need to deliver renewable technologies in the power sector will be the two key drivers over the next 10 years. Those are big challenges.

446. Mr Smyth: In the short term, the other obvious area is biomass energy from the waste sector. Again, that is close to being put on the market, if it is not already on the market. Overall, that will still play a relatively small part in power generation. We are very supportive of encouraging activity and ensuring that we have the right planning policies that will encourage biomass energy from waste.

447. Mr Ford: When you spoke about leadership, you also referred to the fairly challenging target of having a carbon-neutral Government estate. Is that challenging, or is it impossible?

448. Mr Ennis: It is doable, but it will take a lot of leadership from around this table. That will be key. It would be a huge example to others. That is the sort of leadership that we need. In the context of delivering something on carbon emissions, it might not be a lot, but it is very significant in respect of symbolism, leadership and showing a direction. It is achievable, but it will be very difficult.

449. Mr Smyth: It also depends on how one defines "carbon-neutral" and so on. That is a big issue. It also depends on whether they are looking to buy in carbon in various things. That would be a cheap way out.

450. Mr McKay: What sort of incentives do you think there should be in the private sector for businesses to invest in renewable energy, not only on a larger scale but on a small scale as well? The Chairman has already mentioned the example of Michelin. We visited Michelin last week. It is seeking planning permission for a number of wind turbines on site that will produce 10% of its

energy needs. That decision was brought about by market pressure, rather than by any incentive from Government. Energy costs for Michelin here are far greater than at their other factories and sites across Europe. What sort of incentives should we provide for businesses, particularly in places like North Antrim where there is a lot of wind potential? Secondly, how do we compare with other areas and other states on research and development? Do you feel that we are being left behind? Is there a need for more investment in that field?

451. Mr Ennis: For large companies, the key driver is energy cost; that is what has driven energy efficiencies. Michelin is a very good example of that. If we are to create a greater demand to go down that route, there is a need for incentives. In view of the financial crisis, we can also help ourselves. The construction industry has suffered, in particular. We should give incentives for roof and wall insulation or anything that drives energy efficiency. We can help that by giving a small grant towards the product itself or a rates rebate for small businesses. They could get a discount on the rates if they reach their carbon targets. That will cause them to do two things: measure their carbon emissions, and do something about it. It is a win-win situation, because it will reduce costs for those businesses. That is an exciting way to go forward in the short term.

452. As regards R&D, we are well behind Scotland, which has taken the lead. Alex Salmond in particular has taken a leadership role in trying to promote Scotland as the renewables Mecca for Europe. Even compared to the Republic, our research is behind. However, we have the capability to catch up and the natural resources to encourage that. It goes back to the linkage between institutions, business and politicians: we must all pull together. R&D is a key area where we can see some positive new industries emerging in Northern Ireland. The waste industry and biomass is another area where we can take the leadership role. There are opportunities, but they have to be grasped.

453. Mr Smyth: Through the Carbon Trust, there are loans of up to £400,000 for industry. That is good, but it does not go far enough. Over the last 12 months, we have argued that there are two additional barriers. One barrier is regulation: it has taken Michelin four years to get through the whole process. Anyone who wishes to put in a reasonably sized wind turbine has in the first place to get planning permission for a trial turbine, which takes 12 months. All these barriers are additional.

454. Another barrier is the payback periods. They are still long, and we are strongly supportive of some kind of capital grant assistance to encourage that investment. I have spoken to a number of consultants who have commissioned by Invest Northern Ireland to look at those opportunities and try to get a better understanding of the barriers and of what sort of leverage they can have to support that. We are supportive of that, and not just with respect to wind power, although that will be a key area for companies based in rural areas.

455. On the R&D side, through the Irish Business and Employers' Confederation (IBEC)/Confederation of British Industry joint business council, we are trying to bring together the research by the universities. Most of the universities on the island of Ireland have research going on in the area of renewables. We are trying to see whether we can bring some of those people together to find out whether there are additional synergies on the back of that. There is a lot of activity and a lot of potential. A lot of it is probably medium to longer term, but we need to encourage people to invest in it.

456. Mr McKay: You mentioned Invest NI. Do you feel that it is doing enough to encourage businesses to go green?

457. Mr Smyth: I believe that it is. It is a fairly active section. It has been running a lot of green events, and it has just produced a very significant document. The industry has already done a lot, because of the cost pressures. The CBI's road map addresses issues such as motors,

compressors, and a whole range of other things, and Invest NI will be running specific workshops on those areas across Northern Ireland. I am sure that it can always do more, but, to be fair, green issues have been featuring prominently in Invest NI's work over the past couple of years.

458. Mr Ennis: I sit on the board of INI, so I am glad that Mr Smyth answered that question. A renewables team has been set up in INI to focus on that issue.

459. The Chairperson: You mentioned working with IBEC and the universities and trying to co-ordinate efforts there. Clearly, it is one of those areas where one would expect the Government to have some input and to show some leadership with business and with the intellectual capacity that you referred to. That sort of stuff should also work its way into our inquiry. We often hear about joined-up Government, but the more we probe, the more we find out that it is not very joined-up. However, if some common sense was applied, we would have a better desired outcome. That issue has been popping up at various stages throughout the inquiry to date. Everyone is doing their own thing and doing it well, but, with a bit more co-ordination, it could be done a bit better.

460. Mr Smyth: We are at an early stage. We have identified a project, and we are going to do something. However, we are concerned that each of the university research teams is dependent on short-term funding of two or three years. Therefore, we do not know whether they are willing to share and to try synergies, because of the whole area of competition. That is where the Government could play a role in the medium term: to try to encourage more collaboration between universities and businesses. Part of our role would be to try to get businesses to be more aware of what research and development is coming out to ensure that it is relevant to the marketplace. Therefore, hopefully, there will be some synergies that we can identify over the next 24 months.

461. The Chairperson: Thank you very much for that refreshing overview of where business is coming from.

462. One of our witnesses from the Wind Energy Association has been involved in a car accident; I trust that he has not been injured. He is coming along anyway, so I hope that he is not in a bad way.

463. We move to the next evidence session. We will hear from the Energy Saving Trust (EST), which is an advice centre that offers free comprehensive advice and support on how energy can be saved in the home, on low-carbon transport and on renewable technologies, as well as tips on saving water and waste, and ways to save money, as well as the environment. It operates across the North, with offices in Belfast, Enniskillen and Derry. A summary of the trust's submission to the inquiry is provided in members' packs, along with the specialist adviser's comments.

464. Noel Williams is with us today. I apologise, but I do not know your colleague's name.

465. Ms Lynsey Orr (Energy Saving Trust): My name is Lynsey Orr, but I will not be giving evidence.

466. The Chairperson: It is good to have you with us. You will have 10 to 15 minutes to give us an overview of where you are coming from and to expand on the submission that you provided to us. Then we will have a question-and-answer session.

467. Mr Noel Williams (Energy Saving Trust): Thank you. It is a pleasure to be here. As you stated, I presented written evidence to the Committee in February, which covered what the

Energy Saving Trust is trying to achieve. A chart was included in that evidence, which showed the specific benefits in respect of the domestic sector and the need for the provision of advice and support to reduce transport emissions. I hope that our evidence provided useful background on where we need to be in order to meet the energy and climate challenges. Together, those highlight the practical measures that we need to take if we are to achieve an equitable share of the climate-change targets that have been set by the Government. I have briefed several members personally, and I am happy to offer a fuller one-to-one briefing at any stage, if any members wish.

468. The Committee's terms of reference sought:

"To identify initial commitments for Northern Ireland that will ensure it plays a fair and proportionate role as part of the UK in meeting climate change targets."

469. The Energy Saving Trust believes that a regular series of targets must be set — a point that was mentioned by previous witnesses — for the reduction of greenhouse gas emissions in Northern Ireland. Within that, the sectors — namely housing, transport, and waste — which concern the trust, need to be targeted.

470. There are practical issues associated with setting targets. One can opt for a five-year target, as in the Climate Change Act 2008, or a one-year target, as in Scotland and Wales. That type of targeting creates practical difficulties in that there could be unusual weather or difficulties with finances at the time such as the current credit crunch. Whichever option is chosen, we need to set a fair and proportionate target for us to meet the climate-change targets, and that needs to be based on a full analysis of the actual and realistic potential for emissions reductions here.

471. The detailed analysis in the recent Committee on Climate Change report should be used to guide us in setting targets. However, although the Committee on Climate Change talked about the potential for reductions on a UK-wide level, its report did not break down that potential for Northern Ireland, and I am not aware of any specific Northern Ireland analysis that does. Given that the potential for emissions reductions, at least in the household sector, varies greatly across all UK countries, such Northern Ireland-specific analysis work will be vital if we are to determine a fair and proportionate level of targeting for us.

472. I would like to outline some of the trust's views on emissions reduction targets for the household, transport and waste sectors. When considering targets for the residential sector in Northern Ireland, it is important to take into account the fact that it is more cost effective to deliver carbon savings in the household sector than in any other sector. The potential for improvements to the housing stock across Northern Ireland must also be taken into account, as must the conclusions of the Committee on Climate Change that if the UK is to meet climate-change targets, emissions from existing housing stock will need to be reduced considerably.

473. The Committee on Climate Change's analysis highlighted the fact that one key feature of the sectors covered, particularly the residential sector, seemed to be the scope for significant energy-efficiency improvements. The scope for such improvements is massive. Renewable energies will come, but it will not be a case of the cavalry saving us tomorrow. We must do something about energy efficiency now, and do it big style. Significant energy savings are possible in housing because that can be done at low cost, nil cost and at even negative cost, as up-front investment would be quickly recouped and deliver a good return.

474. What is the potential for improving the housing stock here? The energy efficiency and microgeneration technologies here are different from those in the UK as a whole. There are a range of reasons why that is the case. One reason is the number of households that are on gas.

In GB, 95% of households are on gas, but only 122,000 homes here. The gas network has to be extended to the rural areas of Northern Ireland, around Lough Neagh, for example. We must make sure that, by 2020, we are not still at 70% on oil, but that 70% of us are on gas.

475. The other 30% of people should be using renewables, and moving forward so that renewables can take a bigger share.

476. We do not deal with big energy generation; we deal with domestic and consumer transport. However, if ever I see a saving for us, it is in getting people to use gas. Some of you might remember from one of our "green barometers", that 17 of the 26 Northern Ireland council areas — not the councils, the areas — made up the bottom 17 of approximately 600 local authorities in the United Kingdom. Of course they did, because they are using oil. If those areas were to use gas, they would become much more competitive.

477. The Chairperson: I hope you do not mind me interrupting, Mr Williams. I live in on the shores of Lough Neagh in County Derry. Some people would say that where I live is out in the wilds, and it is a fairly isolated and rural area. As for the prospect of me having gas, I do not see it. We have already heard information about the reliance on gas as an energy source. There are all sorts of uncertainties and worries about the ultimate source of that gas and around how long it might last. Supplies may run out, and there are some political uncertainties, especially in Eastern Europe. Have you any ideas or views on the sourcing of gas supplies?

478. Mr Williams: We are at the end of the pipeline. The island of Ireland makes up 1% of the land mass of Europe, 1% of the population of Europe, and uses 1% of the energy. However, we are still at the end of that pipeline. Natural gas is going to be with us for some time, and there are potential fields off the south of the Republic of Ireland, and off the north-west of Donegal. However, it will be some time before those come on stream, if, indeed, they do. Gas is going to be around for a while, and although it would be nice if renewables could come charging in to save us tomorrow, there is still a lot of development to be done. The grid is not ready yet.

479. I applaud what CBI and other organisations are doing, but we need to stop using the worst fossil fuels. If you consider natural gas the best fossil fuel, carbon emissions from oil are 32% worse, and from coal, 58% worse. In the interim, we need to use our gas supply, extend the gas network, and incentivise it where necessary. That way, Chairman, your own home could be sucked into a gas system that goes round all rural Northern Ireland. We can then swap gas across the border as well.

480. The Chairperson: Thank you very much. Please continue.

481. Mr Williams: The Committee on Climate Change, which the Department of Energy and Climate Change (DECC) at Westminster dealt with, concluded that if we are to meet our climate-change targets, emissions from our housing stock need to be reduced by 80% by 2050, and all buildings need to be as close as possible to zero emissions by 2050. That is a big ask. Information from the Committee on Climate Change suggests that Northern Ireland is likely to reduce emissions from its housing stock at a different rate. Of course it is, and I have just tried to explain the reasons why. That is why we need interim targets. There is no point in setting a long-term target; to achieve this, we need to set interim targets. We recommend that the Executive undertake more detailed analysis, which we definitely need.

482. I scribbled down some notes when Nigel Smyth was speaking. He talked about savings in the domestic sector. A civic forum is debating the potential for a "green new deal", the housing aspect of which I have done some work on with a colleague from the Housing Executive. Although it is not definitive, I will give you a quick analysis of some of the things that could be done. There are 75,000 homes that need cavity wall insulation; 75,000 homes that have solid

wall insulation; 500,000 homes that need their lofts topped up to the right level of insulation; and 150,000 oil boilers that need to be upgraded. I hope that I am not boring you, but I have a couple more figures. By 2020, we need 250,000 gas conversions, 55,000 wood-pellet boilers, and 200,000 solar and water panels, if we are to get to where we want to be.

483. We need 50,000 ground or air heat pumps. The cost of those measures amounts to £2.6 billion over the next 10 years or so, but they will result in savings of £3.7 billion and 7.3 million tons of carbon. I am sorry to have to give members all those figures, but Nigel Smyth prompted me. It is all very well for me to try to cover these issues, but we need a proper analysis.

484. It is important to take account of the Committee on Climate Change's analysis that there is potential for reductions in the road transport sector here. Interim targets must be set. We can achieve big wins in Northern Ireland right now. We can choose the lowest carbon emitting vehicles in their class, which will reduce our carbon emissions by 25%, or drive the most efficient vehicle, which will reduce carbon emissions by 15%. We would not expect Mrs Jones and her five children to get into a Mini, but she can choose the most efficient car in its class. People who normally drive to work alone could reduce their carbon emissions by 50% by sharing a car with someone else. That figure would, obviously, rise if the car were shared by three or four people. Taking the bus instead of the car also reduces emissions on a journey by 50%. Longer-distance journeys on alternative transport could reduce emissions by up to 85%. All those figures are contained in my written submission, but it is important to highlight them. Of course, if we all decided to walk or ride a bicycle, we would reduce our emissions by 100%.

485. It is important to understand the need for investment in low-carbon infrastructure. The CBI talked about that; it is about individual behaviours and what people can do if they receive the proper advice. Some members who also sit on the Committee for Regional Development will know that I have addressed the matter with that Committee. We must try to make a modal shift. People will not move off the current mode if the infrastructure is not there. Electric points and hydrogen points were mentioned earlier. One cannot drive an electric or hydrogen-fuelled vehicle over the border without having those facilities down there. Those points must be introduced on the islands of Ireland and GB.

486. Finally, I will touch on the issue of waste. Over the past six months, the Energy Saving Trust has been running waste pilots, which are outlined in our advice offerings. We developed those pilots in partnership with the Waste and Resources Action Programme (WRAP). The four pilots deal with food waste, home composting and recycling, and are based in Northern Ireland, Wales, the north-east of England and London. The early results are positive; we gave advice on waste to more than 10,000 people between June and October 2008. Waste advice is a natural part of what we offer, and we will roll that out in all our advice centres in 2009 and 2010. We look forward to sharing that data with the Committee and any other interested people. We have developed a route map; I could talk about that now, but, given the time constraints, I will be happy to answer questions.

487. The Chairperson: Thank you very much. You mentioned the Energy Saving Trust's guidance. I would be grateful if you could provide the Committee with anything that could be of benefit to constituents.

488. Mr Williams: We will do that. Copies of the guidance are being prepared for MLAs as we speak.

489. The Chairperson: That is excellent.

490. Mr Ross: A large part of your role is to give advice to households about saving energy. We all use a lot of energy on electrical products at home. The Committee heard evidence from BT;

phones use a lot of power, as do Sky boxes, LCD TVs and dishwashers. Do you think that manufacturers are doing enough to reduce the amount of energy that their products use?

491. That obviously impacts on ordinary people living with their families, as that is their main use of energy. Anything that saves families energy and, ultimately, money is welcome. Are companies doing enough to reduce the use of energy, or have you had any discussions with companies about that issue?

492. Mr Williams: The short answer is no, they are not. The Energy Saving Trust is working with a raft of companies, and it has over 3,000 products that people might see when they are out and about that display the "energy saving recommended" logo. However, 3,000 products is not enough, and we want it extended to PCs, Playstation 3s, and the like, and we are working with people who manufacture those products. We are working with people all the time, including B&Q, Currys and vehicle manufacturers.

493. Mr Ross's question referred to people's behaviour. We carried out research in Northern Ireland — not in GB — and, together with the Housing Executive, we talked to 3,000 homeowners and discovered that behaviour was a big problem with those products. That is why I put my marketing into the same pot as the Housing Executive, and you may have seen our advertisement, 'The power to save is at your fingertips'. Those are not statistics from somewhere else; they are hard facts from Northern Ireland, and we are trying to change people's behaviour. We want to do that in the home and in transport.

494. Mr Ross: I recently bought a dishwasher and it has the EST logo on it. What can the Assembly do to encourage individuals to buy products that are more energy efficient? What incentives could there be for individuals to buy energy-saving products as, ultimately, their main concern will be the long-term cost?

495. Mr Williams: I would argue that the Energy Saving Trust is there to provide that advice to the consumer. We do not get involved in business; we leave that to the Carbon Trust. We look at the domestic situation and offer consumer advice. We have a free phone line because, if the consumer is to act, he or she needs free, impartial and reliable advice. The Committee could do that by suggesting some additionality to what we do already. If you want us to do something, phone us or send an email and ask us whether we have thought of doing something. I might well come back and say that your idea would be great but I would need a few extra pounds to provide that additionality. The Assembly can show its support by supporting the work of the Energy Saving Trust, because people are realising that it is a one-stop shop.

496. When the Minister for Social Development sent out her letter advising people about their £150 fuel payment, the Department advised those people to ring the Energy Saving Trust if they had any queries. That is one way in which we can provide additionality.

497. Mr Ross: You said that you work with a range of product manufacturers. Do you have a list of those energy-efficient products and their energy ratings that could be made available to the Committee?

498. Mr Williams: I can provide that list to the Committee.

499. Ms Orr: The list is available on our website.

500. Mr I McCrea: The Energy Saving Trust gives advice on how to save energy. The knock-on effect of people saving energy will be the effect on our carbon footprint and on climate change. My point is not specific to the Energy Saving Trust, but I am concerned that some organisations may say that if people save energy, they will save the climate. I have not heard the message

that people are generally concerned about the climate when they are considering saving money by buying energy-efficient products. The knock-on effect is doing what we have been discussing.

501. I am concerned that people are being used as facts and figures to highlight what the impact of the use of energy-saving products will have on climate change. In reality, those people are only interested in saving money for themselves. That is good, and people will jump at any energy-efficiency savings, if there are financial incentives.

502. Alistair spoke about what the Executive could do. During last week's Committee meeting, there was a discussion with some witnesses around finance and the cost to the Government. They were looking at other means of finding money for looking into renewables, and so forth. Have you considered alternative ways of finding finances for that? As you will be aware, the Budget is finite; therefore the cost will have to be borne by someone. At the end of the day, that someone will be the taxpayer.

503. Mr Williams: To answer your first point, there is a win-win situation. There are those people who are more worried about putting a meal on the table than the climate; that is their concern. Rather than save energy, we are trying to tell those people to stop wasting it. If you are not wasting energy, you are not wasting money, and are therefore more able to put a meal on the table. Their perspective is: to heck with the climate.

504. We carried out some research here in 2006 with the Housing Executive. That research showed that 80% of the 3,000 people surveyed said that they knew climate change was happening, but half of them said that they could not be bothered doing much about it. My job is to make them do something about it. If someone saves money by saving or not wasting energy, they are helping to save the planet. That is a win-win situation.

505. Turning to funding, the good news for the Northern Ireland Executive is that they do not fund the Energy Saving Trust. The Westminster Government fund the Energy Saving Trust, and they take that responsibility seriously, because they want to look after all of the UK. They fund me, my staff and the advice centre. I told one Minister recently that if she wanted to take that portion of the money, I will just close up and go and look for another job. She told me not to do that, because the Ministers were very happy to take our advice at no cost to the Executive. There is no direct cost to you.

506. As I told Mr Ross, however, a bit of additional funding would do no harm, and we could do a bit more for you. This resource comes in at no cost to the Executive, but I will be looking to you to perhaps do a bit more as we go forward.

507. Mr Boylan: Thank you for your presentation. I want to talk about housing stock and energy efficiency and to see whether you have any detail on the current position. There are two elements to insulation; cavity insulation and loft insulation. I also want to talk about what we can do about policy.

508. Recently, we have seen that there seem to be separate guidelines for the adaptation of social housing, as opposed to private housing. The Minister for Social Development recently commissioned the purchase of some private housing stock, which now has to be adapted. We now have to get policy on adaptation right. It is easy to say that all newbuilds should be more energy efficient and adapted, but what information are you getting from the public in relation to the housing stock itself; particularly the social housing that you are dealing with?

509. Mr Williams: We would like to see some key actions to address the route map for the domestic sector, such as the development of a forward-looking strategy for emissions reductions from the housing sector. If we are to achieve an 80% reduction in carbon emissions by 2050 —

and I do not want to over-emphasise this point — targets are needed. Interim targets are also needed so that we can measure how well we are doing.

510. A programme of public engagement is also required — a buy-in on the technologies and policies to affect the emissions reductions. If we cannot persuade the public to buy in, we will not achieve a win-win situation.

511. Barriers exist — someone mentioned cavity-wall insulation. Changing from an oil-fired to a gas system requires building permission. The erection of a wind turbine involves planning issues, which delays the process. Triggers must be reviewed in the next update of the Northern Ireland building regulations. For example, adding a loft or an extension are good triggers to upgrade a home.

512. The Committee has heard of the energy performance certificate (EPC) that is needed by someone selling or renting out a house so that the tenant or purchaser can see the state of the house. The EPC allows the purchaser of a house to make a decision based on the type of information that a potential car-buyer may consider — rather than a costly gas guzzler, they may prefer something that is cheaper to run. The EPC does that for the home.

513. If we were brave, we could further say that all the recommendations on an EPC must be carried out. Therefore, if a house is sold in 2016 or 2017 and the energy performance certificate indicates that this or that are bad, it would be mandatory to rectify those faults before that house can be sold or rented. That policy issue could be considered. A variety of incentives and awareness-raising activities could be developed around people's behaviour. I have talked about that because people's behaviour is crucial.

514. A Committee member asked about incentive levels. The trust has found that, in housing, a 30% incentive is good, whether that incentive is for renewables or insulation. The Reconnect programme of a couple of years ago offered a bigger incentive than that, but I believe that those days have gone. We are seeking incentivisation at the appropriate level so that there is a buy-in from the householder.

515. Mr Boylan: Local analysis has been talked about. At the start of the whole process, the Committee on Climate Change was mentioned. This Committee is concerned about the North being left out of the loop by not having anybody specifically from this area involved. How far down the road of local analysis are we? Who will be called on to conduct that? How is all that tied together to identify and analyse local need? Where does the trust see that?

516. Mr Williams: In costing that with the Housing Executive, I sucked in my resource from London, where I can call on 200-odd people. I may not know some of the facts being sought, but I know of a man or a team of people who do.

517. The Energy Saving Trust is happy, as a company, to invest in Northern Ireland by doing that research, and I offer the trust's input to all of the consultations. For example, the renewable energy strategy consultation is coming up. There was the scoping study before that. Those are very important consultations, which we address big style, if I may use that colloquialism.

518. The trust ensures that Northern Ireland is embraced in a consultation such as the heat and energy saving strategy, which is the major one that has just been completed by the Department of Energy and Climate Change. However, more locally, specific work must be carried out, and I believe that the Committee should, perhaps, go down that road.

519. Mr Ford: Much of the conversation has focused on the issue of incentives and the trust's public-awareness activities. It is fine that the trust can give advice. The example of

incentivisation that was given involved the EPC and the fact that if a problem was noted on the certificate, a house could not be sold. That sounds to me more like a stick than a carrot, and I thought that carrots were incentives. A while ago, one could not attend a public event without being given a low-energy light bulb, which sold the message. I presume that the trust is about to give me an A++ rated fridge for free. How does it incentivise in order to get the message across beyond the current, minimal level of light bulbs?

520. Mr Williams: We moved well away from the free light bulb and giving advice on draughtproofing and cavity-wall insulation two years ago. Being energy efficient is no longer good enough; the trust is now looking at the whole issue of sustainability. Therefore, renewables and the use of personal transport must be embraced. I would incentivise the purchase of an A++ fridge by pointing out that in its first year it will save £28 in electricity.

521. Therefore, in two or three years' time, the additional £40 cost will have been paid off. As time goes on, energy will undoubtedly become more expensive, and, therefore, that machine will become even more valuable. It will last for 12 years before it rusts away or its owner decides to upgrade. That is the message that we are trying to get across, but trying to relay the benefits to people is a hard old paper round.

522. Mr Ford: Presumably we are still not getting that message across terribly well because that machine sits in a shop costing £40 or £50 more than the alternatives.

523. Mr Williams: We are working to try to get the information to the public. We work in partnerships with Tesco, Ariel, and Marks and Spencer. Members may remember the Energy Saving Week two years ago, when Ariel ran a campaign promoting washing at 30 degrees, and kids played Gaelic football dressed up as washing machines, and so forth. We are trying to get the message across to kids and, using the "pester" factor, into schools. The commercial sector is the territory of the Carbon Trust and the CBI, but we are happy to work with the employee-engagement programmes of big companies. We work on the basis that someone who saves energy at home may do so at work too, and vice versa. Incentivising is a hard old paper round, but we are trying.

524. The Chairperson: Thank you for coming and giving your time today, Mr Williams. You were amply supported by Lynsey.

525. We must move on, because lunch has been ordered for 1.00 pm. The next witnesses are from the British Wind Energy Association (BWEA) and the Irish Wind Energy Association (IWEA). The British Wind Energy Association is the trade and professional body for the UK wind and marine renewables industry, and it claims to be the leading renewable-energy trade association in the UK. Its primary purpose is to promote the use of wind power offshore and onshore in and around the UK. The Irish Wind Energy Association is the national association for the wind industry in Ireland. Its primary purpose is to promote the use of wind power in Ireland and beyond as an economically viable and environmentally sound alternative to thermal or nuclear generation.

526. Members have been provided with a summary of both associations' submissions and the specialist adviser's comments. The witnesses are Charles Anglin and Michael Walsh from the BWEA and Gary Connolly from the IWEA. Mr Walsh, I heard that you were involved in a car accident; I hope that you are well and that not too much damage was done.

527. Mr Michael Walsh (Irish Wind Energy Association): I am very happy to be here.

528. The Chairperson: Good.

529. Thank you all for attending the Committee today. As you will have seen from previous presentations, we would like you to give an overview of your submission, which should last approximately 10 or 15 minutes. We already have your submissions, and Committee members will have had time to read them.

530. Mr Gary Connolly (Irish Wind Energy Association): Thank you very much. We greatly appreciate the opportunity to make our oral presentation to the Committee. I must first make a minor correction to your introduction. I am a representative developer who operates in Northern Ireland. In common with many developers in Northern Ireland, I hold dual membership. Charles Anglin is the director of communications for the British Wind Energy Association, and Michael Walsh is the chief executive of the Irish Wind Energy Association.

531. It will be helpful to give the Committee an overview of the structure of wind industry in Northern Ireland. It is an extremely healthy industry, and a significant number of developers, including us, of differing size and origin, operate in the Province. Northern Ireland is a unique region, in that it is affected by what goes on in Westminster and on the island of Ireland as a whole. For example, the Northern Ireland renewables obligation (NIRO) is specific to Northern Ireland and came from Westminster policy, whereas we operate in a single electricity market, which is an all-island matter.

532. As I said, most of the developers who work in Northern Ireland hold dual membership, in that we are members of the BWEA and the IWEA. The BWEA has been working successfully in partnership with us to represent our interests and ensure that our message reaches bodies such as the Committee for the Environment.

533. As was mentioned, the British Wind Energy Association is the primary representative body for the wind, wave and tidal industries in the UK and has more than 500 corporate members. The Irish Wind Energy Association is the national association for the wind industry on the island, and it is keen to promote the use of sustainable-energy systems.

534. It is important that I reinforce the fact that the wind industry in Northern Ireland makes a very important contribution to the local economy. It makes a significant impact on carbon-emission reductions and increases the security of energy supply in Northern Ireland. Further development of the industry here will have significant additional economic, environmental and social benefits; Michael Walsh will outline those benefits in a few moments.

535. The headline figures for the industry show that approximately 280 MW of onshore wind is generated in Northern Ireland. Almost 7% of the electricity that is consumed in Northern Ireland is generated from renewable resources, the vast majority of which currently comes from onshore wind. The DOE's Planning Service has approved facilities — operational and waiting to be constructed — that will generate approximately 500 MW of wind power. When all the facilities that produce that 500 MW of power have been built and are operational, they will generate in excess of 12% of total electricity consumption, which is the 2012 target. We are well on our way to meeting that target.

536. Renewable-energy producers that will be capable of producing 1,000 MW of power are in the queue for planning permission. The all-island grid study, which is internationally recognised, has estimated that renewable energy across the island could contribute 42% of total energy consumption. Charles Anglin will expand on that in a few moments. In conclusion, it is worth pointing out that, since 1995, initial capital investment in Northern Ireland on renewable-energy production has amounted to between £300 million and £400 million, not including ongoing income.

537. Mr Charles Anglin (British Wind Energy Association): It is important to recognise that changing the ways in which we produce and use energy is the key driver in reducing greenhouse-gas emissions. In doing so, it is important to understand that the shift to low-carbon energy sources, and renewables in particular, is the key deliverer of that change. We are already aware that the UK has signed up to the EU-wide targets that call for 20% of all energy to come from renewables by 2020. In the UK, that will mean 15% of total energy produced. Members heard from other witnesses that renewable heat and fuel sources start from a very low base. That means that between 35% and 40% of our total electricity production will have to be generated from renewables.

538. As Gary Connolly said, 7% of the energy currently produced in Northern Ireland comes from renewable sources, and that is above the UK average of approximately 4.5%. We are well on course to meet the 2020 targets, but Northern Ireland cannot rest on its laurels. We must look beyond 2020, and the forthcoming strategic energy framework will provide a perfect opportunity for doing that. Gary mentioned the all-island grid-study estimate that 42% target of total energy consumption could come from renewables. That is what is attainable and viable on the island of Ireland. That estimate should become Northern Ireland's new renewable-energy target for 2020.

539. That target is ambitious, but we believe that it is deliverable. If that were broken down a little further, it would mean something in the region of 1,600 MW of installed renewable capacity. If that were broken down even further, what kind of energy supplies would there be? Part of that might answer some of the points that Mr Ford raised.

540. If one looks at wave and tidal energy, specifically tidal energy, because the wave potential in the next decade is negligible, there is the potential for about 50 MW to 100 MW capacity by 2020. Those are not just figures from BWA, which represents the wave and tidal sector, but from Marine Current Turbines Ltd, which is carrying out the exercise in Strangford Lough and has a degree of expertise in the matter. If one looks at the potential for offshore wind, it is in the region of 200 MW. That is a total of 300 MW out of the 1,600 MW needed to be achieved. The remainder — 1,200 MW to 1,300 MW — must come from onshore wind, and that is why it is so important to ensure that not only do we get the strategic energy policy and the forthcoming sustainable development plan right but we must ensure that planning policy is right. On that note, we must welcome the Minister of the Environment's commitment this week to ensuring that economic considerations will be a factor in the Planning Service's decision-making process. The Minister has long been committed to that. Our industry welcomes that, as will all industries in Northern Ireland, and it is about time.

541. However, that same approach must be extended beyond the basic economics to the question of climate change. The Planning Service needs to consider what impact its decisions will have on Northern Ireland's ability to mitigate climate change. Planning reform is absolutely vital to tackling the targets that we are addressing. We need up to another 1,000 MW — 1 GW — of onshore wind.

542. Draft Policy Planning Statement 18 (PPS 18), 'Renewable Energy', represents a significant advance. Having said that, however, the devil is always in the detail, and the supplementary planning guidance, specifically on wind, is deeply problematic. Serious concerns arise about the specifics. The supplementary planning guidance is too prescriptive and would severely restrict the growth of the onshore wind sector. It could mean that, instead of more than 90% of the current backlog of schemes being approved, which is the current, and very good, approval rate in Northern Ireland, that approval rate could be completely turned on its head, and, because of the restrictive nature of the supplementary planning guidance, one could see as little as 10% of those schemes currently in the queue getting passed. In its current form, the supplementary planning guidance would effectively pre-empt the strategic energy framework. The planning

approach to wind should follow on, and flow from, the renewable targets, not the other way around. If we get planning wrong, we will not be able to meet those renewable targets and make the necessary contribution to tackling and mitigating climate change. Northern Ireland needs a coherent, strategic, holistic approach to policymaking across a range of Departments if it is to secure the reductions in climate change that the Committee seeks.

543. We strongly support the idea of a Northern Ireland climate change Act. Rather than merely accept secondary legislation from the UK Parliament, the Assembly should adopt its own primary legislation, which should contain a bold target on renewables of 42% and a commitment to ensuring that a planning regime be responsive and sustainable. That will create a secure, indigenous energy supply, and Northern Ireland will be able to punch above its weight and reap the benefits of having a low-carbon economy.

544. Mr Walsh: Charles Anglin and Gary Connolly have covered the subjects eloquently. To conclude our evidence, I will refresh the wind industry's economic case. There was an insightful comment in the previous question in that many people want to know what is in wind energy for them and what it will cost. We have a strong case to make on those points, which I will outline to the Committee.

545. In the keynote opening address to the Irish Wind Energy Association's autumn conference in Belfast in October 2008, the Minister of Enterprise Trade and Investment, Arlene Foster, provided many useful insights into issues that will be important to the industry in Ireland. She talked about the importance of creating jobs, of stabilising energy security and of steadying energy prices. Those are all areas in which the wind industry has a strong case.

546. I will run through some numbers. Targets have been mentioned. The association believes that it will be necessary to generate another 1,000 MW of wind energy in Northern Ireland over the next 11 years to meet the local share of UK energy targets. The all-island grid study shows that that would be consistent with providing 30% to 40% of the requirement on renewables. That represents a direct investment of £1.2 billion in the Northern Ireland economy from private companies, such as Gary Connolly's Northern Wind Power; Airtricity; Gaelectric; many other companies based in the UK, Ireland, mainland Europe; and, more encouragingly, companies that are setting up in Northern Ireland.

547. Of that £1.2 billion, £300 million will be spent on local businesses in areas including construction, crane hire, access roads, project management and legal expertise. Therefore, the industry will provide a significant investment boost to the Northern Ireland economy.

548. In addition, for every MW of power installed, the wind developer collaborates with the local community; they set up community-development funds and pay local rates, which will bring an ongoing injection of about £13,000 a year to the ultra-local economy. On a scale of 13,000 MW, that amounts to an ongoing injection of £13 million, without taking into account the energy-saving cost, the impact on energy prices or long-term investment. That money will go solely into the very local economy. A feature of the welcome given to the wind industry is down to the fact that it brings capital and jobs to areas where both are badly needed.

549. Minister Foster has talked a few times about another area in which the wind industry can really help is its impact on our fuel security and energy prices. Charles Anglin mentioned that Northern Ireland imports almost 99% of its core energy requirements. Wind is an indigenous energy resource that Northern Ireland can and will be able to exploit. Doing so will reduce dependence on imported fossil fuels, with their attendant price volatility.

550. Oil prices hit a six-month peak and were expected to rise again today. It is impossible to know what will happen with them next week. Try rolling that forward — what will those prices

be next summer or winter? We are in the middle of one of the biggest, deepest global recessions in perhaps a century, and oil prices remain much higher than they were three years ago. For any economy to leave itself more dependent than necessary on oil is a very dangerous strategy to follow. Northern Ireland has access to an indigenous source of energy that would provide a strong hedge against that.

551. As Charles Anglin mentioned, the all-island grid study, which the Governments in the North and in the South sponsor, has shown that 42% of energy on the island can be generated from renewable sources, mostly wind. It also showed that the cost involved would be very advantageous, and that report was compiled at a time when oil prices were costing \$30 to \$40 a barrel. Similarly, the regulatory authorities on the island — the Northern Ireland Authority for Utility Regulation (NIAUR) and the Commission for Energy Regulation (CER) — recently published a study that showed that using wind energy will reduce prices for energy consumers in all but a very low fuel-price scenario.

552. It is important to leave that message with the Committee. Wind energy will do three things. First, it will stabilise fuel security, because there will be access to a fuel source that is not subject to other geopolitical concerns. Secondly, the price of wind energy is stable, because, once the turbines are built, the cost of that energy for the next 15 years is known. Thirdly, it will reduce prices in all but the most unusual scenarios.

553. We are currently working to evaluate how many jobs the industry will create in Northern Ireland. We have already seen substantial employment here. I attended a session in Dublin with the Construction Industry Federation (CIF) this morning, which had more than 100 attendees, including representatives of companies from Northern Ireland, such as Lagan Cement, that are looking to diversify into the industry. They are looking to bring not only their construction experience but their project-management, site-selection and planning experience into the industry, and to continue to have jobs in that sector.

554. We are very encouraged by the signals and the strategic energy framework coming from the Northern Ireland Government. We want the Committee to be aware that a very strong opportunity is available for Northern Ireland to improve its energy position in the medium term.

555. Thank you for the opportunity to meet with the Committee.

556. Mr McKay: We watched 'The Age of Stupid' last month. One issue that the film covered was planning and windmills, and people's experience of trying to get planning permission for wind installations in England. Has any council area or jurisdiction struck the right balance between communities and those who are applying to put wind installations into an area? If the Minister of the Environment dropped the supplementary planning guidance that is attached to draft PPS 18, would you be relatively content with that document, or do you feel that more could be done?

557. The Chairperson: I ask that one person answer on behalf of each witness group, rather than our having three separate answers.

558. Mr Connolly: Perhaps I can clarify it for you, Mr McKay: do you want me to use one of the authorities in Northern Ireland as an example, or one from across the islands?

559. Mr McKay: I would like to hear any good examples, either from across the water or here.

560. Mr Anglin: Different jurisdictions can treat it very differently. The Planning Service here has its own structure. In the UK as a whole, any schemes above 50 MW are decided by Whitehall officials for England and Wales, and by Scottish Government officials for Scotland.

561. There has been a real change in the industry over the past few years; it has grown and matured, and a great deal more consultation goes out to the public. Engagement is undertaken to try to ensure that local communities' concerns are addressed and that any specific issues are responded to. It is now extremely common to see developers establishing community funds that go beyond those payments detailed in section 106 of the Town and Country Planning Act 1990. Developers try to address very specific concerns that the local community may have; for instance, they may take measures or establish a fund to which people can apply to have home insulation.

562. One issue to which we are very sensitive is that people will often say that they think it is fine to have a wind turbine and that they are all in favour of saving the environment, but they will ask what is in it for them. We want to ensure a direct relationship between having a wind farm near someone, and improving that person's standard and quality of life. We recognise that we must be part of the community and not be imposed on it.

563. I am sorry, but what was the second part of your question?

564. Mr McKay: I asked whether you would have any major concerns about draft PPS 18 were the strategic planning guidance were to be dropped.

565. Mr Anglin: No industry representative will ever say that he or she loves everything that a Government are doing, but we recognise that draft PPS 18 is a pretty good document. There are parts of it that we would like to see tweaked, but we want to concentrate on the parts that we really think are damaging, and we do not think that the supplementary planning guidance is helpful. We have not seen the latest draft; we await its publication with keen eagerness. However, the restrictions on turbine height, as well as the fairly arbitrary designation and assessment of landscape characteristics, will deeply damage the industry.

566. The Chairperson: The Committee received representations a few months ago that expressed concerns that liaison, co-operation and channels of communication between the industry and the Department over the formulation of policy were not up to the desired standard. I know that, at that stage, the Minister took an active interest in the matter. Did the situation improve?

567. Mr Anglin: The situation improved. Then Minister Foster met with us and sent a letter to clarify her understanding of the status of the draft supplementary planning guidance, and, thereafter, we met her officials on two more occasions. Despite that initial improvement, we encountered another period during which it became slightly more difficult to understand at what stage the policy was. Since then, we have had a constructive meeting with Minister Wilson. However, there is always room for improvement and an increased degree of interactive dialogue between us and certain officials.

568. The Chairperson: At that stage, we were concerned to learn about the deterioration — or, perhaps, total absence — of communication. I am glad that the situation improved. Will you keep in touch with the Committee on that matter?

569. Mr Anglin: Yes; absolutely.

570. Mr Boylan: Mr McKay has already asked about draft PPS 18. It is good to see some unity on the island, even if that comes through the two wind energy associations.

571. The Chairperson: Led off by an Englishman. [Laughter.]

572. Mr Boylan: He is an invited guest.

573. Michael, I am glad that you have recovered from your accident. Draft PPS 18 has proved to be a problem here, especially the permitted height of turbines under the guidelines. Through your policy in the South, how easy, or difficult, has that process been? Northern Ireland Electricity (NIE) and EirGrid have linked to provide an interconnector. There were problems in my constituency, but the two bodies seem to be working well together to provide electricity across the country.

574. Mr Walsh: In my previous role, I worked with EirGrid on the single electricity market (SEM). Therefore, I have been working on a policy framework in the North for about four or five years. As Charles said earlier, the concept of PPS 18 and the turbine height limitation is a huge risk to the industry in Northern Ireland. However, the South has an issue whereby planning permission can expire before one obtains a grid connection. That is a major risk to the industry in the South.

575. Although that is a different issue, it is a fundamental one, through which two well-intentioned policies in two different arenas do not properly line up. Through our strategic-energy response, we want to increase cohesion among Departments, agencies and regulatory authorities in all jurisdictions. Although the supplementary planning guidance, draft PPS 18 and the strategic energy framework are well-intentioned policies, they do not line up. Similar issues arise in the South. For example, five-year planning permission for a wind turbine in the South may expire because it takes seven years to obtain a grid connection.

576. We have been impressed by the engagement, professionalism and competence of people in Northern Ireland and by the quality of interaction. The strategic energy framework pre-consultation document is one of the most impressive documents in the world. It is thoughtful and poses questions of some depth. It is encouraging that those fundamental questions have been asked ahead of the consultation process. We expect that to lead to a strong energy policy for Northern Ireland that is the interests of the economy and society here. We are trying to advise you on areas that may require further consideration or work. However, on the whole, we are encouraged by the initiatives and by the leadership that is being demonstrated.

577. Mr Ford: You said that a target of 42% by 2020 is viable for renewable energy on the island. That is, therefore, a target of approximately 35% from onshore wind. Is that the limit of penetration of the market that you see for onshore wind because of the question of intermittency, or could it grow further if the grid were improved further?

578. Mr Anglin: We consider that target to be technically feasible and economically deliverable in that period. NIE has been looking at studies that assume around 2 GW of renewable capacity, so clearly there is potential to expand. The target of 42% is based on an assessment of the capacity that is needed to provide additional backup for that level of wind penetration.

579. I take this opportunity to debunk one of the myths that one often hears, which is that wind is intermittent and may not blow and that the lights will suddenly go off. I am not familiar enough with the single electricity market, so I shall use the UK example. The UK currently has a generating capacity of around 78 GW. It has peak demand of around 62 GW or 63 GW, which means that it carries a spare capacity of 15 GW or 16 GW.

580. The National Grid, which is charged with balancing the grid and ensuring that the lights do not go off, operates on a four-hour time frame. During that four-hour time frame, the National Grid asks the generating companies to supply it with enough spare operating capacity — spinning reserve, as it calls it — to keep the lights on if the wind were to stop blowing or if a nuclear plant were to go down and a sudden supply were needed.

581. The National Grid currently operates on 4 GW of spinning reserve. When the new generation of nuclear power comes in, around 5 GW of spinning reserve will be needed. Based on 30 GW of wind power, as opposed to the 2.5 GW that is currently generated, the National Grid assumes that the spinning reserve capacity will have to increase to 8.5 GW. Therefore, the amount of backup needed will not be 80% or 90%; around 3 GW or 3.5 GW more than what is needed already will be needed to renew the grid.

582. Mr Ford: Do you think that the supplementary planning guidance to draft PPS 18 is wrong or completely unnecessary?

583. Mr Anglin: The supplementary planning guidance may well be helpful. The guidance as it had been drafted was certainly not helpful, and the industry would be in a much better position if that guidance were substantially revised. We recognise that landscape is an important issue and that it must be one of the key factors in deciding on the siting of wind farms. However, that is only one factor, and the fundamental problem with the supplementary planning guidance's approach is that it would become the decisive issue.

584. Not only would it become the decisive issue, but it appears to be being assessed highly subjectively. Around 130 landscape-character areas are identified and assessed. Extraordinarily, 90% of those are assessed as effectively inappropriate sites for wind farms. Of the remaining 10%, half of those are next to City of Derry Airport and would be ruled out owing to radar. That means that around 5% of Northern Ireland would be available for new turbines. The 2020 targets will not be reached if only 5% of Northern Ireland is available.

585. The Chairperson: Thank you very much. If no other member has anything further to add, we will conclude our deliberations for the moment.

The Committee was suspended.

On resuming —

586. The Chairperson (Mr McGlone): We will now hear evidence from the Institution of Highways and Transportation (IHT). The institution is a learned society concerned specifically with the planning, design, construction, maintenance and operation of land-based transport systems and infrastructure. IHT provides authoritative, independent, professional advice to Government and transport stakeholders, and it ensures that its members have access to current skills and good practice. The institution also provides qualifications to underpin the standards of the profession. Members have a copy of IHT's submission to the inquiry and a copy of a specialist adviser's comments.

587. The witnesses from IHT are Geoffrey Perrin, Herbert Bailie and Philip Robinson. Gentlemen, you are all most welcome, and thank you for coming. You have been very patient in sitting in on the earlier proceedings, and you have an overview of how the Committee works. Perhaps you could give a presentation lasting approximately 10 or 15 minutes to the Committee. We would like to hear a synopsis of — and any information additional to — the submission that members have already received. After your presentation, members will put questions to you.

588. Mr Philip Robinson (Institution of Highways and Transportation): On behalf of the Institution of Highways and Transportation, thank you, Chairperson, and the Committee for inviting us to convey our views as part of the inquiry into climate change. By way of introduction, I am the chairperson of the Northern Ireland branch of the IHT; Geoffrey Perrin is the chairperson of the policy subcommittee and a former chairperson of the branch; and Bert Bailie is a member of the committee at our headquarters in London and chairperson of its membership board. Bert is also a former chairperson of the Northern Ireland branch.

589. As you said, Chairman, the institution is a learned society. It has over 11,500 members in the United Kingdom, with around 450 in Northern Ireland. It is concerned specifically with the planning, design, construction, maintenance and operation of land-based transport systems and infrastructure. It is important to note that we represent a group of professionals; we are not a lobby group.

590. I will hand over to Geoffrey Perrin, who will cover the key points in our submission. He will be followed by Herbert Bailie, and then Mr Perrin will summarise our report.

591. Mr Geoffrey Perrin (Institution of Highways and Transportation): The institution recognises that the increased demand for travel and transport in its current form in Northern Ireland is unsustainable in the long term. Fossil fuels are finite, and peak oil production is approaching, possibly in the next 10 to 15 years. The carbon dioxide emissions from vehicles in the UK represent 25% of the total carbon dioxide emissions, and that is recognised in the Climate Change Act 2008. Serious issues have been raised about the impact that carbon dioxide emissions can have, including the impact on the health of the community. As has been mentioned, there is a target for an 80% reduction in CO₂ by 2050, and that represents a major challenge for us all.

592. However, for a prosperous Northern Ireland economy, we need good, efficient transportation systems and transport infrastructure. That has been recognised in the regional transportation strategy, which has been adopted by the Assembly. Many of the issues that we would like to raise are covered in the regional transportation strategy, and there is a need for the finance to implement fully that strategy. In recognition of the issues facing transport, the Institution of Highways and Transportation produced the publication, 'Climate Change and Sustainable Transport — the Challenge for Transport Professionals'. Copies of the executive summary of the report will be made available to Committee members this afternoon.

593. Mr Herbert Bailie (Institution of Highways and Transportation): I will go through the five main points raised in 'Climate Change and Sustainable Transport — the Challenge for Transport Professionals', which we used in formulating our submission. The five themes are: managing demand; changing behaviour; accessibility and social equity; technology and safety; and administration and finance. In addition, we make reference in our submission to alternative energy sources and renewables, but we are not specialists in that field.

594. With regard to managing demand, reducing the need to travel is not just an environmental objective; it will and has become necessitated by daily and weekly household budgeting as fuel costs have increased over recent years. It will continue to play an increasing role in choices about where to buy a house or where to seek work. However, reduced travel has the capability of contributing to reductions in CO₂. It is clear that transport and land-use planning are linked. We emphasise that the regional development strategy and the regional transportation strategy must continue to sustain integrated development, taking account of environmental sustainable impacts, climate change and the issues associated with peak oil.

595. The demand for travel can be affected by measures that rely on persuasion, in other words, soft measures, or by hard measures that deter travel. Soft measures include: promotion and provision of good public transport, walking and cycling, car clubs, car sharing, and other measures that were mentioned earlier. The hard measures are: reducing car parking, increasing the cost of car parking, allocating space on the roads to public transport, and even the possibility of road-user charging — which has not made headlines here, but has done so in GB on many occasions.

596. Provided that attractive alternatives to the car are available, soft measures can be more effective than is appreciated by many transport planners. A significant body of evidence supports

that. The Office of Fair Trading has recently published good-practice guidance on smarter choices that we consider worthy of the attention of all transport planners. Our colleagues from the Confederation of British Industry or the Energy Saving Trust said that we should look beyond our own boundaries to what happens elsewhere.

597. In Northern Ireland, we depend significantly on road freight. In the UK, food and agriculture products account for nearly 30% of goods transported by road, and food miles on roads rose by some 15% between 1992 and 2002. Food transport in 2002 accounted for about 25% of all heavy goods vehicle (HGV) kilometres travelled in the UK. Some 95% of fruit and 50% of vegetables sold in the UK is grown abroad, and the amount of food flown into the UK doubled in the 1990s. It is estimated that, for the UK, the direct environmental and social costs of food transport are over £9 billion each year, predominantly related to congestion charges, as we move those goods around the country.

598. The wider implications of unsustainable transport impact need to be addressed at local, national and global levels. One of the issues we must look at — and it is topical — is that, if we reduce food waste, we reduce the amount of food that has to be moved around, reduce food miles, and consequently emissions and CO₂. In local planning, we need to consider and assess carefully the location of new retail food shopping outlets, including the introduction of local farmers' markets. We have to ensure that, when we do that, we give priority to sustainable transport. However, there is concern about trends towards Internet shopping, which has become increasingly popular. That may not reduce the number of trips made, but it changes the types of trips made, causing considerably more deliveries to occur.

599. We need to look at actions that manage demand and require people to change behaviour. Let us look at what happens elsewhere: car ownership in France and Germany is higher than in the UK, but mileage driven in those countries is considerably less than in the UK. We can read that into Ireland and Northern Ireland as well. The provision of alternative travel options as a priority, the provision of timely information about travel opportunities, and better marketing and advertising of significantly good initiatives has been advocated by transportation professionals for many years.

600. We encourage walking and cycling along safe routes, car-sharing, car clubs, park-and-ride schemes, public transport and travel plans. We welcome the significant progress made in Northern Ireland in promoting sustainable options over recent years. The Travelwise campaign has been a significant platform for that, but more needs to be done. We need to get kids to ask parents why they are driving them to school and polluting the atmosphere with emissions, instead of helping them to walk into a healthy future. If we tackle those people about those issues, there is a possibility that they will think more about how they travel. That will help to reduce transport emissions and will, consequently, have an impact on climate change.

601. Accessibility and social equity, achieved in a sustainable manner, is a fundamental requirement of modern society. The Institution of Highway and Transportation believes that measures that promote and develop walking and cycling in an urban transport hierarchy must be given high priority, not only for people's health but for the general environmental impact of those pursuits. Better use of existing networks, through small and large-scale initiatives, can contribute to the more efficient movement of traffic. The resulting reduced congestion means less emissions and less pollution. We accept that public transport, as was mentioned earlier, cannot be a substitute for many journeys, particularly those in less built-up and rural areas that have diverse origins and destinations. However, we suggest that public transport must be a key focus in urban areas. Those services must be frequent, reliable, affordable, comfortable and accessible if people are going to use them.

602. As pressure mounts for more sustainable transport as a result of the reduced availability and rising cost of fossil fuels, or from policies such as carbon rationing to limit climate change, public transport will have an increasingly crucial role to play. It is important to ensure that public transport is well integrated with other forms of transport. The regional transportation strategy has addressed, and is continuing to address, that issue. We support fully the concept of a rapid-transit system in Belfast, but it must meet the criteria for good public transport.

603. I will now move on to technology and safety, and talk about vehicle efficiency and alternative fuels. The increase in car traffic, coupled with improved fuel consumption and better engine efficiency, is an interesting subject. Those factors mean that car emissions are relatively stable. Nevertheless, we must not be complacent, and technology must be improved so that emissions are further reduced. It is obvious that fleet operators and major employers, as well as individual owners, will have to look carefully at new vehicle stock. Future technological development will create savings. We must look at the introduction of new technologies, such as hybrid and electric engines and fuel-cell energy; many organisations are already doing so.

604. Manchester Airport plans to have its ground operations rendered carbon-neutral by 2015, and has begun purchasing electric vehicles to support that target. Some Government Departments are using hybrid cars; I understand that the Government carpool is using some of those vehicles. As was suggested earlier this morning, however, there is perhaps a need or an opportunity for people to do a lot more.

605. Significant improvements have been made to recycling on construction schemes, which will help to reduce the construction industry's carbon footprint. However, we must ensure that we have a resilient transport network as we move forward into a time of change. Recent experience has demonstrated the potential for extreme weather to have a major effect on transport networks. That has been evident in England since 2007, and, to some extent in Northern Ireland in the past year or so. Climate science is unequivocal about the fact that extreme events of that nature will become more common and possibly more intense. As a result, it is important that we understand where transport networks are most vulnerable and what measures can be taken to reduce the consequences of that disruption. That is how climate change impacts on the economy, which, in turn, impacts on how we live.

606. The stability of embankments and cuttings could be at risk if drainage systems were swamped, and bridges, road surfaces, permanent ways and railways would be at risk if there were extremes in temperatures. Those issues have to be looked at. Although engineering solutions are appropriate to deal with climate change and developments, it is clear that planning the location of critical services and the development of contingency plans will have a vital role to play. No complete picture exists of where those vulnerabilities lie or what the thresholds at which failure could occur are. It has been suggested that that be addressed as a matter of urgency to minimise the social and economic disruption that will occur when we are subjected to such extreme weather events.

607. It is clear from the Eddington Report that transport is a key factor in economic performance. It is a challenge to maintain services and infrastructure in a sustainable manner. We are aware that road transport is a significant source of taxation and revenue. In fact, road users and public-transport users probably pay more than they get in return.

608. However, as we move forward, we must give considerable consideration to where the finance for tackling climate change and addressing the issue of transport will come from. Apart from the current Exchequer funding, we must begin to look at local tax-raising powers, road-user charges, parking levies, developer contributions and land-use tax. Incidentally, in Nottingham, officials are seeking to introduce parking levies on all workplace parking spaces and are waiting for permission from the Government to implement that.

609. Finally, I turn to alternative energy sources. Global fuel sources are being depleted. As Geoffrey Perrin said, peak oil production is approaching. We have only very limited carbon fuel resources available in Northern Ireland, and those are not commercially sustainable. At present, we are reliant on imported carbon fuels and interconnectors for energy. If electric power can be generated without burning hydrocarbons, pressures on valuable oil resources will be relieved. Northern Ireland is ideally placed to benefit from natural resources, and the Institution of Highways and Transportation supports continued work to develop those options.

610. The agriculture industry has the potential to produce managed crops for biofuels for power generation. Wind energy and tidal energy options also exist. The issue of waste disposal was passed over very quickly this morning. Despite the problems that we have with it, waste disposal could contribute to our energy needs. If we can generate electric power without burning hydrocarbons, we can provide other advantages for the Northern Ireland economy.

611. Mr Perrin: In summary, for the good of the economy, we need a good transport system and infrastructure. Internal freight movement here is always by road, and without that we would be in severe difficulties. As well as that, private cars and buses will be the dominant forms of transport in rural areas for the foreseeable future. An opportunity exists, however, in Belfast in particular, for providing a modern, integrated public transport system, with park-and-ride facilities at the key entry points along the key corridors. That will help to reduce congestion and carbon emissions, and create a better environment for people.

612. It is expected that engine efficiency will improve with new fuels. That will play a major part in reducing carbon emissions. The review of the regional development strategy and the regional transportation strategy, which is currently ongoing, gives us an opportunity to study the sustainable and environmental issues and study how traffic impact on the climate and the environment will develop.

613. IHT recognises that numerous Government Departments, Translink and Roads Service have worked to implement the RTS. Many of the measures that we have briefly mentioned are being covered and are in their early stages. A lot of our members are involved in that process. Our plea is that the finances and resources should be available so that the measures that are contained in the modified RTS are carried through when the review is complete.

614. The Chairperson: You mentioned the Executive's pool of vehicles. After asking a question in the Assembly, I discovered that that pool contained a couple of hybrid vehicles. However, the CO₂ emissions of the other vehicles are quite high. The criterion that the Department used in its tendering process was 170g/km. Compared to some vehicles, that is very high. We must question what is being done. People can talk the talk, but if they do not walk the walk — or drive the proper car — it does not stack up to the example that is set elsewhere.

615. I had a poor experience with some biofuels on one occasion, and I was a bit soured as a result. You mentioned that the description of biofuels as a single category is oversimplistic. You stated that although some biofuels offer real savings in relation to carbon emissions, others may not be truly sustainable. Will you give us a bit more information about that? Do you have more information on that?

616. Mr Bailie: I cannot provide numbers at the moment, but the issue is related to the fact that many biofuels create big impacts on other cash crops and create other impacts in general economies. The biofuels may create less emissions and fewer environmental problems, but there could be other problems in the background, so the true footprint has to be considered. There are more detailed references to that matter in some of the documentation that we will make available.

617. Mr Ross: Perhaps the pool of cars should consist of Volkswagen Passat BlueMotions, or other environmentally friendly cars.

618. The Chairperson: Was that a plug, Mr Ross? [Laughter.]

619. Mr Ross: We heard a submission from the Energy Saving Trust. Its message was very positive: if people save energy, they will save money up front or over the course of two or three years. Some of the things that you have said relate to the impact on individuals. You talked about the need to reduce travel. Over the twentieth century and the twenty-first century, one of the biggest advances for individuals has been the ability to travel — whether individual travel, or because families who could never have afforded to go abroad before now can because of low-cost flights. I think that that is a major advance in civilisation. To say that that should be reduced automatically has a bit of a negative connotation.

620. You talked about the need for road charging, and so on. I would be totally opposed to road charging anywhere in Northern Ireland. Look at the size of this country — road charging does not make sense to me.

621. The people who end up paying are those who cannot afford it, because it does not matter to those who can. Charging for road use impacts on the wrong people in society. The necessity for parking levies was mentioned. That means people travelling to work must pay to do their jobs, which is totally unrealistic. People lucky enough to have a job in today's economic climate should not be further penalised.

622. If the aim is to get more people into retail centres to spend money in businesses that are struggling, charging more for car parking in town or city centres is wrong. I do not like the idea of people being punished. If the objective is to encourage people to use public transport, make that attractive and make it something that they want to do; do not bully them into using it. Some of the institution's suggestions are the very measures that feed scepticism about so-called environmental taxes or green policies. People believe, quite rightly in many cases, that they have little to do with saving the environment and more with generating revenue for the Government.

623. What is the institution's response to those comments, some of which, I am aware, are quite critical?

624. Mr Bailie: As a member of the public, I share the same general scepticism. Road charges, parking levies, increased parking charges and removing road space to give priority to public transport are all part of a toolbox that help people to make choices and decisions about how and why they travel and how they judge the necessity of a journey. Yes, Northern Ireland is small and the need for people to travel will continue.

625. Mr Ross: Do you accept that those measures do not give people choices over their decisions — that their choices and decisions are being limited?

626. Mr Bailie: Yes, but I was about to say that because those measures are part of a toolbox, their application must be subjected to a full economic analysis. Those tools may not be appropriate in many situations, or there may be some in which they will or could be appropriate. That must be considered. The key point is that, in order to contribute to reductions in CO₂ and pollution, there is a requirement for mechanisms and measures to reduce travel.

627. Persuading parents to have their children walk to school rather than drive them there has the double benefit of making the children healthier, and perhaps the parents, if they walk with them. That immediately reduces emissions, as does increased use of public transport. Car sharing, which was referred to this morning, has the potential to, and does, reduce congestion

and emissions. Further reducing congestion cuts down on emissions and produces a win-win situation by creating efficient transport, helping the economy and supporting the climate-change agenda.

628. Mr Ross: I have one final point about lower carbon emissions from the new vehicles stock, which has been mentioned. I know that Translink recently received new, lower-carbon-emission buses. Is it not the case that those vehicles use more fuel? Therefore, the overall impact is that the environment is no better off. Carbon emissions from the vehicle may be reduced, but because it uses considerably more fuel the overall impact is nullified. Is that fair comment?

629. Mr Bailie: I cannot comment on that directly. If the Committee wants us to find out more and come back to it, we will do so.

630. Mr Ross: I am very confident that that is the case. Perhaps the witnesses will have a look at that.

631. The Chairperson: The Committee cannot expect the witnesses to be engineers. By the way, that is not the case with the BlueMotion, Alistair.

632. Mr Perrin: To add to what Bert Bailie has said, the institution is trying to encourage, to some extent, a modal shift. There is a carrot-and-stick approach. The carrot is that we must have a good, affordable, reliable, comfortable and dependable public-transport system. People will not be denied travel; they will see and use a more environmentally friendly alternative.

633. We cited greater Belfast as the most appropriate location for that system, because a certain volume of users is needed to justify having it.

634. Some of the more penal measures are an attempt to demonstrate that there could be a funding mechanism to help with the implementation of a sustainable transportation system. We are conscious that it is all very well saying that we need more money for these things. Doubtless, you would love to give us the money, but we accept that it is not as easy as that. There is a basket of mechanisms that could possibly be used to fund better public transport.

635. Mr Boylan: Thanks very much for your presentation. My point is along the same lines of what Mr Ross has said. It is a matter of changing attitudes and behaviours, and you outlined some fiscal instruments that are aimed at doing that. I travel up the M1 on my way to Stormont, four days a week. A huge number of cars use that road, and there is a good park-and-ride facility.

636. I appreciate your point that the population around Belfast could sustain a new rapid-transit system. However, you have not really touched on how the issues in rural areas should be addressed. It should not merely be a case of building up roads infrastructure and networks. There should be other ways of addressing the problem, such as improving broadband access, increasing working from home, and so on. How do you feel we should address those issues?

637. Mr Bailie: I had jotted down some points on that, but I managed to go past them. Reference was made to broadband this morning, and networks incorporate communication as well as transport. A good communication network and good broadband access would create opportunities for home working, which is one of the soft measures that I mentioned. Some Departments and a lot of employers have been looking at allowing staff to work from home.

638. One fewer car journey per person per week would potentially reduce traffic by 20%, which would lead to a substantial reduction in congestion. It is going to be difficult to come up with

alternatives to using the car in rural areas. The car will probably remain the main mode of transport for a significant period of time. That is why it is important to continue to invest in technological developments that will provide more efficient engines. We need to support the rural economy and to reduce certain types of travel within urban areas.

639. Mr Boylan: You may look at developing technologies in the long term, but people in rural areas need transport, and they will ultimately have to pay for new technologies or any other measure that is implemented. The provision of public transport is always more viable in urban centres. How do you see that situation progressing? Will it be a case of seeking subsidies? No matter how one looks at it, people in rural areas will always have to pay.

640. Mr Bailie: All that the institution has done in that respect is to identify potential fund-raising measures. How those measures are put in place is a matter for the politicians and officials.

641. Mr Boylan: That is why I asked that question here at Stormont. Chairman, we must be sure to note that response.

642. Mr Philip Robinson: The Department for Regional Development has availed itself of EU funding over the past five years to improve minor roads in the border region, particularly in County Fermanagh. We advocate the promotion of rural transportation in the next tranche of EU funding from Brussels for 2007-2013, and there is scope to do that. Although much of the funding is heading to eastern Europe, there is still an opportunity for Northern Ireland.

643. Mr Ford: Thank you very much for your presentation. It was an interesting complement to some of the earlier presentations that focused more on the domestic scene. You said that the RTS recognises the need for change. In your written submission, you referred to the:

"realisation that the philosophy of 'predict and provide'...for traffic growth was not sustainable".

644. Is that the case in Northern Ireland? Does the RTS go far enough, or are we still facing a Budget that is seriously skewed towards roads rather than public transportation?

645. Mr Bailie: As I said earlier, our submission is based on a document that was produced on a UK-wide basis. There has been a strong realisation across the profession generally that the "predict and provide" philosophy is, in many ways, unsustainable and leads to attempts to squeeze quarts into pint pots. Part of the problem in Northern Ireland, as the RTS recognises, is that the communications network is poor and requires much investment to bring it up to a standard that meets modern-day requirements. That is not necessarily a matter of "predict and provide"; it is providing what is necessary to support a vibrant economy. That is what the RTS has been doing and intends to do. The Assembly recognised that when it voted for the measures, and I imagine that it will continue to be part of the ethos when the RDS and RTS are next reviewed.

646. The Chairperson: Gentlemen, thank you very much for taking the time to be with us today. You will receive a copy of our report when it is produced. I hope that it will contain many illuminating recommendations for the Assembly, the Executive and possibly others.

647. We will now hear evidence from the Royal Institution of Chartered Surveyors (RICS). The institution represents the property profession and offers advice on a diverse range of land, property, construction and related environmental issues. Part of its role is to set, maintain and regulate standards. The RICS also provides impartial advice to Governments and policymakers. Members have a copy of its submission to the inquiry.

648. The RICS delegation comprises Michael Doran, head of the environmental group in the North; Thomas McClelland, the NI residential spokesperson; Liam Dornan, head of the building control professional group; and Nuala O'Neill, who is the public policy executive. It is great to see you again, Nuala.

649. Ms Nuala O'Neill (Royal Institution of Chartered Surveyors): The Royal Institution of Chartered Surveyors in Northern Ireland thanks the Committee for inviting us to give evidence to its inquiry. Michael Doran, who is the head of the environmental professional group, will cover energy issues. Tom McClelland is the Northern Ireland residential spokesperson, and has a particular interest in transport. Liam Dornan is the head of our building control professional group, and he will talk about the built environment.

650. As our submission states, the RICS has approximately 3,000 members in Northern Ireland. It is the principal body that represents professionals employed in the land, property and construction sectors. Our members practise in land, property and construction markets, and are employed in private practice; central, regional and local government; public agencies; academic institutions; and business and non-governmental institutions. As part of its Royal Charter, the institution has a commitment to provide advice to the Government of the day, and in doing so, has an obligation to bear in mind the public interest.

651. Our written submission stresses that it is imperative that we act urgently to mitigate the worst effects of climate change. Global CO₂ emissions are rising — not only that, but there are signs that increases in recent years have been particularly sharp. One international energy agency projection is that emissions will be more than 60% higher in 2030 than in 2002. By comparison, the Stern Review suggests that global emissions in 2050 should be 5% below current levels in order to meet the climate change goals adopted as a basis of the review. Not only are we not on track, we are going in the wrong direction.

652. I should like to make the Committee aware of the publications and research that the RICS has issued since our February submission. We have published 'Towards a Low Carbon Built Environment: A Road Map for Action', and the 'RICS Global Zero Carbon Capacity Index', based on 2008 results. Links to those documents have been made available to the Committee Clerk in case members require further information.

653. Mr Michael Doran (Royal Institution of Chartered Surveyors): Before I start I should say that I am also the director of Action Renewables, although it is not in that capacity that I appear before you today; it is on behalf of the RICS.

654. Members will be aware that Northern Ireland imports 97% of its primary energy requirement. It is interesting that we also export 85% of our agricultural produce. I suggest that that imbalance could be addressed in co-operation with some of the other Departments.

655. I will set the scene about where we are now, what the RICS policy is, and what we and the Department of the Environment could do to address the issues. Most of the fossil fuels that we use are imported. By reducing the amount of fossil fuels that we use and import, we would not only address climate change mitigation but address security of supply and provide an opportunity for increased economic development in Northern Ireland.

656. The RICS strongly supports the UK Climate Change Act 2008, which suggests that, by 2050, we will reduce greenhouse gas emissions by 80%. Currently, the Assembly's emissions reduction targets are uncertain. The sooner we agree on those targets, the better. Whatever we do, we need to start sooner rather than later.

657. The Committee will be aware of the Stern Report, which was produced in 2006. Most people have not read the report, because it is 700 pages long, but its basic thrust is not about the implications of climate change; it is about the cost. It is an economic report on what the costs will be and what those costs will mount to if we do not address the issue quickly.

658. The question is what we and the Department of the Environment can do. First, it is a cross-departmental issue, particularly in conjunction with the Department of Enterprise, Trade and Investment (DETI) and the Department of Agriculture and Rural Development. I am aware that you already have an interdepartmental working group, headed by Minister Foster, that is looking at climate change. That has great potential.

659. Secondly, there is the legislative framework, which is within the remit of the work of the Department of the Environment. We have some concerns about some of the recommendations in planning policy statement (PPS) 18, particularly on restricting the height of wind turbines. Northern Ireland has tremendous potential, both in wind capacity and in water capacity from tidal streams. It is a mistake to tie one hand behind our back when trying to address those issues. Individual decisions must be made, but if we make overarching decisions on, for instance, the acceptable height of turbines, we will be fighting with one hand behind our back.

660. We must recognise that electricity accounts for only about 30% of total energy consumption in Northern Ireland, whereas heat accounts for 40%. At the moment, DETI is developing — and I think the Department of the Environment also has input — a renewable heat strategy. We hope that that strategy will be published soon and be supported by the Department of the Environment.

661. I have already mentioned wave and tidal technology; Northern Ireland has tremendous potential in that area. One turbine development between the mainland and Rathlin could produce 10% of all Northern Ireland's electricity. The Committee will be aware that a demonstration turbine is already operating in Strangford. That turbine has only a five-year licence, and, therefore, it is likely that it will have to be removed from the water in three years. At the moment, it appears to be running successfully. To date, there has been considerable constraint on the development of such projects. I ask the Department of the Environment to look on such projects favourably.

662. Northern Ireland has an opportunity to use its existing skill base to increase economic development based on existing renewable technologies, particularly marine technologies. Northern Ireland has a background in shipbuilding, drilling, sub-sea cable laying and offshore platform construction. If we move now, we have the opportunity to develop those skills as part of a renewable energy industry.

663. Mr Tom McClelland (Royal Institution of Chartered Surveyors): Chartered surveyors are a hard-working lot. I am chairperson of the Northern Ireland Cycling Forum, and I submitted a response in that capacity to the Committee's inquiry some time ago.

664. I am sure that the Committee has heard similar comments from the Institution of Highways and Transportation and other bodies. In Northern Ireland, the Roads Service transport system is almost entirely dependent on fossil fuels, global reserves of which are depleting faster than the discovery of replacements. Carbon dioxide emissions from transport in Britain and Northern Ireland have risen from 27% in 1990 to 33% in 2004, and that rise is projected to continue. Although increasing numbers of people use public transport, the figures show that car use is still the dominant mode of transport. Between 2005 and 2007, car travel accounted for 81% of the total distance travelled in Northern Ireland. Since 1990, emissions from road transport have risen by almost 35%.

665. RICS recognises that transport is one of the most technically and politically difficult sectors in which to reduce emissions, partly due to the widespread behavioural changes that are required. However, that does not justify a lack of action. We need to develop a two-pronged approach: the reduction of the emissions footprint, and a spatial relationship between the use of land and transport infrastructure. We welcome PPS 13, 'Transportation and Land Use', and look forward to its full implementation.

666. RICS considers all transport modes to be legitimate options of travel, but, where realistic, we advocate a modal shift to public transport, cycling and walking. About 65% of all journeys in Northern Ireland are shorter than five miles, and 17% are shorter than one mile. Moreover, we believe that the price that a passenger or driver pays should more accurately reflect the real cost of higher emissions of certain modes of transport. The reduction of carbon dioxide in the transport sector must be set within a wider policy framework at Westminster. Fiscal incentives combined with infrastructure should be introduced to encourage alternative fuel use.

667. There should be greater investment in an affordable, sustainable public transport system, particularly in rail transport. The introduction of new rolling stock has significantly increased passenger numbers, and consideration should be given to the reintroduction of carrying freight on the rail network.

668. Higher levels of road space correspond with higher levels of traffic and, in turn, higher carbon dioxide emissions. RICS advocates the careful use of design to reduce road-hub space and establish communities around well-serviced public-transport hubs, alongside the provision of incentives to reduce dependence on private cars. RICS believes that the high level of car use can be reduced by addressing the spatial relationship between the use of land and transport infrastructure, and by using the built environment to encourage walking, cycling and the use of public transport. The planning system must be used to reduce the need to travel, particularly in private vehicles, while providing accessible, affordable and relevant public-transport systems. We should be linking transport services, jobs and people through transport development areas, where possible containing high-density development around public-transport nodes, which will help to create sustainable communities and should lower carbon emissions from the built environment by reducing people's reliance on cars.

669. Mr Liam Dornan (Royal Institution of Chartered Surveyors): I should like to address the issue of building stock. Clearly, buildings in use are a significant contributor to carbon emissions. It has to be recognised that significant work has been carried out by Government on reducing emissions from the built environment through the introduction of the code for sustainable homes, which is applied to all new social housing; energy performance certificates (EPCs); and the green rates rebate. However, much more work needs to be done. At present, buildings contribute 44% of carbon emissions, and 63% of all energy consumed in the UK comes from the built environment.

670. We suggest that government, in its endeavour to combat climate change, has one of the most potent weapons at its disposal in the form of the existing building control framework, which is already within the powers of local authorities. Building regulation approval is required for most building works. Property professionals assess plans to ensure that they meet environmental standards for energy performance. That can be as fundamental as ensuring the use of energy-efficient boilers and the insulation of building structures. In our efforts as property professionals and with the Department's continued support, RICS believes that increased regulation of energy-efficiency standards will go some way towards helping the Assembly to address fuel poverty for the people of Northern Ireland by making energy-producing appliances more efficient. At a commercial level, application of those same principles will reduce energy bills for business, thus helping the economy.

671. RICS acknowledges that measures to effectively reduce carbon emissions involve a wide range of policy mechanisms, such as taxation, which are probably outside the remit of the Assembly. However, there are tools at our disposal — for example, the introduction of EPCs for commercial and domestic properties, which became mandatory on 1 January 2009. Although RICS welcomes that move, we would like to see a firm commitment from Government that EPCs will be taken seriously and operate as an effective incentive to reduce energy consumption. For that to be effective, RICS recommends that the role of EPC enforcement be given to local authority building control officers as soon as possible and that adequate funding be provided to cover that duty. RICS also recommends that Government buildings should lead by example in that respect.

672. We welcomed the announcement in December 2008 that rates rebates will be introduced for domestic energy efficiency. We advocate that a similar policy be introduced for non-domestic, or commercial, properties. We urge the Executive to look at proposals from the UK Government's heat and energy savings strategy. Improving the energy efficiency of older residential properties must be a priority for Government. RICS and its members are strongly committed to delivering a sustainable property sector in which the use of resources, particularly energy, is minimised throughout the life of a building, from concept to disposal. Government intervention cannot work in isolation. Members from each part of society — individuals, businesses and Government — must work together to limit emissions.

673. I will end on a positive note by saying that if we save energy, we should save money. It is easy for me to recommend to the Committee codes of practices and in-depth reports from eminent professionals. However, the building regulation framework exists as a key statutory arm. We look forward to your continuing commitment to the promotion and enforcement of European energy standards.

674. Mr Boylan: Are the policy and building regulations that are in place complementary to achieving the targets for the older building stock? What are your suggestions on how we should address that through incentives or funding?

675. Mr L Dornan: People living in older building stock want to improve their dwellings and cut down their bills. However, they may not have the money to improve their properties. Financial incentives are required from Government, by way of simple measures such as roof-space insulation and the replacement of old boilers. It is similar to scrapping a 10-year-old car and getting £2,000 to help to buy a new one; those are the sort of measures that I am referring to. Incentives are not as readily available as they used to be. Perhaps Government need to think about that, because most of our emissions come from the older stock. New stock is not as bad, as it will already meet the current standards for energy conservation. Old stock, however, really needs money spent on it.

676. Mr Boylan: Is there any more that we can do through policy or regulation?

677. Mr L Dornan: There is a piece of legislation being considered by one of your sister Committees, the Committee for Finance and Personnel. It is an amendment to the building regulations making it mandatory to make an application to building control if one is changing an old boiler for a new one. That will ensure that people do not install a boiler that is less efficient than one that meets current standards. That can be regulated only if the building control officers have sight of it.

678. Mr Boylan: PPS 18 and its supplementary policy guidelines keep raising their heads today. At the minute, the focus is on the height of wind turbines. Do you believe that that should be withdrawn and looked at again?

679. Mr L Dornan: Yes, I do. Committee members will be aware of the proposal for a new cross-discipline training college at Desertcreat near Cookstown. The college will cater for the PSNI, the Fire and Rescue Service and the Ambulance Service, and will contain between 400 and 450 accommodation units. If the college is restricted under the proposal in PPS 18, it will be able to source 24% of its electricity from one turbine. However, if the college is allowed the height that it wants, it will be able to source 92% of its electricity from that turbine. Now, if you lived within the flicker of that turbine, you might not want that project to go ahead. Therefore, the decision is not a simple one for the Department of the Environment. However, limiting the height of the turbine will take away the opportunity to use some of the resources that we have. That is just one example.

680. Mr Boylan: In relation to public transport, we need to make a call on trying to remove private cars from the roads, especially those that travel in and out of Belfast, which can be seen on the M1 and M2 every day. How can we incentivise people to use public transport? A lot of people have talked about public transport, and the park-and-ride scheme seems OK, but how can we realistically incentivise people to use public transport?

681. Mr McClelland: First, the external costs of private single-car occupancy have not been fully taken into account and are much higher than suggested by some commentators. I can provide the Committee with figures on the real cost of motoring that were published by Transform Scotland. Therefore, the externalities must be taken into account. Secondly, a carrot-and-stick approach is required. The trouble is that the public subsidy to Translink has been reduced, which means that passengers have to pay higher fares. That suggests that it is cheaper to continue motoring, because the cost of motoring has fallen dramatically in real terms over the past 20 years. The way to incentivise people is to make it easier and cheaper to use public transport.

682. Some 60% of all journeys are less than five miles and, from memory, 20% are less than one mile. Queen's University recently carried out a study that showed that 98% of the rural population live within five miles of amenities such as pharmacies, doctors, schools and retailers. If cycling and walking were prioritised and made safer, a huge gain could be made. I appreciate that this is the Committee for the Environment and not the Committee for Regional Development, but there is a feeling that the general trend in transport policy has been to ensure that the strategic road network is in good shape and can carry as much traffic as possible. The issue of local journeys has not been examined in any way, and work to address those problems has not been encouraged.

683. The Chairperson: It is certainly not encouraged where I come from; there are lots of potholes.

684. Mr Ford: You talked about the concept of putting freight on rail — is that feasible in Northern Ireland or anywhere on this island?

685. Mr McClelland: Not in the short term; rail freight was last used in 2003-04. However, in the long term, given the cost of fuel and the external cost of running heavy goods vehicles, it is a matter that will have to be revisited.

686. Mr Ford: Do you think that it could happen in the medium term, considering that our heavy-rail network is fairly limited?

687. Mr McClelland: It should not be dismissed entirely.

688. Mr Ford: You also talked about developments concentrated around what you described as "transport hubs". Should that be revisited in a whole raft of planning policy statements?

689. Mr McClelland: PPS 13 is already there. RICS did not dream up the notion of public-transport nodes by itself. It is well established in the available literature and in internationally recognised planning policies.

690. Mr Ford: I was making a point about the need to revise planning policy statements and whether you were suggesting, effectively, changing planning policy.

691. Mr McClelland: On PPS 13, the short answer is no, as long as it is implemented. Off the cuff, I wonder about the success or otherwise of PPS 21, and whether it will herald a big drift into the countryside or the growth of towns and cities.

692. Mr Ford: Mr Dornan talked about improving the efficiency of older housing stock. The vast majority of houses that will be occupied by 2020 are occupied already. Some of those houses were built to this year's standards, while others were built to the standards of the 1960s and 1970s, or, dare I say, to almost non-existent earlier standards. How do you deal with that retrospective problem?

693. Mr L Dornan: That is a big problem, and the only way to deal with it is through financial incentives for house owners. We think of older stock as red-brick Victorian two-up two-downs, but, in truth, houses that were built 30 years ago are now becoming older stock. They may have cavity walls, but they do not have any insulation in them. Those houses probably do not have double-glazing, but today's houses have double-glazing, cavity walls and roofs that are fully insulated, and a very efficient boiler for the heating system. We have moved on tremendously in that regard, even in the past five years. Those improvements can cost money, but they will undoubtedly result in a saving. There must be an incentive for the owner of a 20-year-old house with a boiler that is still working to change much of the building fabric. Such an incentive could take the form of a rates rebate, which, hopefully, would not affect the district rate but would come out of the Government's purse.

694. Ms N O'Neill: In our written submission, we describe typical pre-1914 homes emitting eight tons of CO₂ a year, compared to four tons for homes that were built after 1995. We can supply further information on that subject. There is a real need to reduce carbon emissions from older housing stock.

695. The Chairperson: We have heard evidence today from you and a range of agencies, and we have been dipping into the responsibilities of the Departments of Finance and Personnel; Employment and Learning; Agriculture and Rural Development; Enterprise, Trade and Investment; Social Development; and Education. In terms of joined-up government, the host Department for this is the Department of the Environment, but we heard last week about the strictures that, for whatever reasons, are placed on that Department in respect of its overarching policy remit over other Departments. You made that point in your written submission. Do you wish to expand on the need for a cross-departmental approach by Government and how RICS regards the benefits and merits of such an approach?

696. Ms N O'Neill: We will be happy to submit further information on that matter to the Committee in writing. When there is a dependence on the budgets of more than one Department, it is difficult to ensure cross-departmental approaches. We will consult our members and get back to you with an approach.

697. The Chairperson: That is great. I thank everyone for their valuable time and information. This session has proved very interesting.

698. We will now take evidence from the Royal Town Planning Institute (RTPI). Members should note that the RTPI claims to be a dynamic organisation that is leading the way in the creation of

places that work, now and in future. Through its membership, the RTPI constantly seeks to create areas and places in which people want to live and work by promoting good planning, raising the standards of the planning profession and supporting its members through continued professional development. The RTPI's submission to the inquiry has been provided to Committee members, along with the specialist adviser's comments.

699. With us today are Mr Gavin Rafferty, the chairperson of the Royal Town Planning Institute, Mr David Worthington, its vice-chairperson, and Mr Brian Sore, its regional officer. You are very welcome; it is good to see you in this capacity. We will allow you 10 or 15 minutes to give us an overview of your submission to the inquiry, or to add to, amend or expand on it.

700. Mr Gavin Rafferty (Royal Town Planning Institute): I thank the Committee for inviting us to give a presentation on the role of town planning in tackling climate change and delivering sustainable development. We hope to assist the Committee with its inquiry into the implications of climate change and the deliberations that follow from it.

701. My colleague David Worthington will deliver the greater part of the presentation, and we will interject at a later point. As you have said, Chairperson, the RTPI is a leading professional body that represents spatial planners in the United Kingdom. We have more than 20,000 members in the UK and more than 500 in Northern Ireland. The institute hopes to advance the science and art of town planning and provide continuing professional development for our members. We hope to develop their skills and competencies in the area of spatial planning and to deal with climate change.

702. Mr David Worthington (Royal Town Planning Institute): I thank the Committee for the invitation to contribute to its inquiry. Although I will make the presentation, I expect my colleagues to interject from time to time with whatever additional information they feel is needed.

703. The Committee has been provided with the RTPI's consultation document 'Planning to Live with Climate Change', which was published in April. It is a high-level document, aimed mainly at the profession and its main customers in Government and industry. Although it articulates the institute's view on climate change, we stress that we are not experts in the science of climate change. It is for others to provide you with evidence on that. However, the institute accepts that climate change is a fact, and the real purpose of 'Planning to Live with Climate Change' is to gear up the profession to deal with the challenges that lie ahead.

704. 'Planning to Live with Climate Change' can be complicated. It is a multi-layered document that can be hard going. Rather than repeat its content, we decided that we should speak about the potential outcomes of the inquiry, and who or what should be charged with the practicalities of getting its recommendations on to the ground. I hope that our evidence will be more practical and more to the point than the consultation document.

705. We distilled our message into four key points. First, the Committee's recommendations, and the targets that it sets, need to be translated into actions. Secondly, those actions must, out of necessity, be co-ordinated. We noted with interest the final question that was asked to the Royal Institution of Chartered Surveyors (RICS), because I will deal with the subject presently.

706. Thirdly, planning is the tool that is readily available to Government to achieve implementation of the recommendations. Fourthly, planning can co-ordinate and align public and private interests impartially, so as to effect the implementation of whatever targets the Committee sets. Over the next few minutes, we will explore some of those points in more detail. I hope that this will not take too long.

707. As I said, the Committee's recommendations and targets must be translated into actions. We are aware of the background and context of the discussion, which is the coming together of the review of public administration, planning reform, the Committee's work and the review of the regional development strategy. In essence, that presents a generational opportunity, because those four elements will not come together again.

708. That is an unmissable opportunity to create lasting and beneficial change. We also note that everyone is well aware that the existing planning system is ill-equipped to meet the challenges that the Committee's report will generate. Planning reform therefore represents the best opportunity to create a planning architecture that can deliver and meet the challenges of climate change.

709. We began to think a little more about how that architecture should look. Sitting on the outside of the process, we have not received much feedback on what happens inside it. We spoke to our colleagues across the water. What emerged from that conversation was that, up until 1979, the system in England, Scotland and Wales largely mirrored that of Northern Ireland. It was regulatory and inflexible. The Government that came to power in 1979 viewed it as a piece of bureaucracy and red tape that needed to be removed.

710. As a result, they swept the system away and opened up a free-for-all in which developers constructed piecemeal without any framework on which to base their investment decisions. As we are all aware, that can be done only for so long. By the mid 1980s, all the obvious sites had been developed. Developers found themselves not knowing what to do. They ended up going back to Government to ask them where they should go next. At that point, Government realised that the importance of planning as a tool for wealth creation could not be ignored. It is central to Government's role, not to create jobs but to create the environment in which jobs are generated.

711. The Government devised a system that identifies opportunities in an entrepreneurial context and creates a competitive advantage. By and large, that system still exists, although it has been modified several times. For example, it now takes account of sustainable development and climate change. However, it continues to be a shift from a regulatory system that blocks development to a spatial framework that actively identifies opportunities. That is the kind of architecture that needs to emerge from planning reform. In short, it is about planning's facilitating action.

712. That leads on to my second point, which is that actions need to be co-ordinated. I noted the question asked of the RICS. The targets and actions that the Committee identifies must be used to set Government's spending priorities. That involves funding and investment strategies that cut across Government. Departments need to come out of their silos, because in present circumstances, when resources are limited, all possible synergies among departmental plans and programmes must be identified in order to institute real cost savings and efficiency gains.

713. Efficiency gains are about more than just saving money that can be reapplied elsewhere: they are also about the efficient use of land and other limited resources. That, in itself, has benefits for Government. For example, if different programmes are co-ordinated and spare land can be identified, that land can be sold to the private sector.

714. The private sector requires certainty when making investments, more so now than ever, given that lending from banks is so loaded. Our view is that the development community would welcome an approach that were to involve its investment plans in a broader scope. In essence, that co-ordination of strategy is spatial planning, which is what the institute stands for and is what is practised in England. To summarise, it is the co-ordination of actions by planning to produce efficient results.

715. Thirdly, planning is the tool that is readily available to Government to achieve implementation. The planning profession is in place, and Government have made a significant investment in employment in that profession in the past 10 years, particularly in the past two years. Around 400 planners are employed in the Planning Service. That is not to say that everything is rosy, because, as we said already, the system requires radical reform if it is to be genuinely effective.

716. We have not seen the proposals that are emerging on planning reform beyond the ministerial statement and Professor Lloyd's report. I am a bit disappointed that the co-ordinating role of spatial planning does not seem to feature in the reform proposals, which instead focus on more traditional land-use planning reforms. That is an opportunity that is going begging.

717. Feeding into that, time is short. According to the consultation document, we have between five and seven years to make an impact. If it were found that the reforms did not work because spatial planning had not been included, there would not be enough time to review the system. The spatial approach has a number of practical applications, but we may leave that issue for members' questions.

718. The lesson learned from Great Britain is that planning is integral to the Government's approach to sustainable economic development and to meeting the challenge of climate change. Although immediate action at a strategic level can be effected through the regional development strategy, action is required on a number of key projects, such as security of energy supply, communications networks — including transportation and telecommunications — health and social services, and education.

719. The regional development strategy should be the vehicle for those, because it already operates at a high strategic level to cover the whole Province. It is quite far down a process that will lead to an adopted document, which is due to be published in draft form before the summer, and it will go through its examination in public, presumably later in 2009. Therefore, a mechanism exists to get those proposals into the public domain as Government policy. At a local level, the proposals can be expanded if necessary, but the proposals that promote carbon reduction, especially those that combine it with economic development, could be prioritised by the system. We have enforcement powers in place to prevent abuse.

720. In short, our view is that planning enables implementation and creates prosperity, essentially through the co-ordination role. That leads on to our fourth point. Planners can co-ordinate public, private, community and voluntary interests impartially. Everyone is familiar with development control, because it is public. Everyone can see its work through a district council planning committee. In essence, that should be the outworking of the process, not the process itself.

721. We need to start with a plan that takes full account of public- and private-sector investment targets and seeks to co-ordinate them in the most efficient and sustainable manner. It must involve local communities in real decision making and integrate the roles of voluntary organisations and non-governmental organisations (NGOs), particularly those that have an interest in the built environment.

722. Out of that, developers will get high-quality investment opportunities that are attractive to their funders. The public sector will save money through cost sharing, and it will be able to that bit more. The environmental and climate-change targets and issues that the Committee will debate and introduce can be fully considered and met. Local communities will have a direct input into the key decisions that will affect them.

723. Those are the bones of a spatial plan. The planner's role is that of an impartial moderator. In essence, the development proposals that flow from that are the implementation of the plan. The application process is one of management, so the two should not be confused. The Planning Service has started to refer to "development management" instead of "development control". The actual mechanisms for development management will not exist until planning reform happens. It is simply calling the same bottle by a different name.

724. Finally, the RTPI's approach of impartial co-ordination has attracted a number of other fellow institutes. In particular, environmental health officers and the Chartered Institute of Housing (CIH) are seeking to use those techniques.

725. To sum up, these are our four key messages: the Committee's recommendations and targets need to be translated into actions — planning can equal facilitation; the actions need to be co-ordinated — planning can create efficiency; planning is the tool that is readily available to Government to achieve those levels of integration — planning enables implementation; and planning is impartial. That brings me to the end of our presentation.

726. The Chairperson: Thank you very much indeed, Mr Worthington. You mentioned the practical applications of the spatial approach. Will you give us some practical examples? Into what does that translate?

727. Mr Worthington: We have two examples. One is based on my personal experience and the other is based on the research that Gavin is doing for Queen's.

728. Mr Rafferty: To set the scene, I am based at Queen's University, where I am a lecturer and a PhD candidate. I am undertaking research into spatial planning in divided societies, and that research evaluates the potential to use spatial planning as a way in which to deal with some of the contentious issues in divided societies or cities. We are assessing the role of spatial planning in dealing with those issues and wider issues, such as climate change and meeting society's needs.

729. Spatial planning is the mechanism by which one gives spatial expression to other policies and objectives. One of those is objectives to tackle climate change, which we are considering today. All those activities in which we are involved, and operating space on land, revolve around a spatial element — moving between one's home and one's place of work.

730. The Chairperson: You mentioned giving spatial expression, but what is the practical outworking of that? It sounds great, but I am trying to visualise what it means.

731. Mr Rafferty: If a policy is introduced to reduce private-car usage, the spatial expression of that would be how car usage in an area can be limited. One would think of mixed-use development, where housing is close to other services; or where services are combined in one particular centre, space or area of land. Polyclinics have recently emerged in Northern Ireland. Those contain GPs, dental surgeries and leisure facilities, such as complementary services. That is a good example of how spatial expression or dimension addresses some health-related issues.

732. That is just one example. An education facility — as another example — could be used for adult learning or education in the evening. It could also be attached to a library. That space might have other uses, which would mean that people would not have to move around as much, thereby limiting private modes of transport and contributing towards reducing emissions, and so on. If other policies' aim is to achieve something, the role of planning is to give spatial expression to those policies through the planning process so that it can have an effect on climate change by limiting CO2 emissions.

733. Mr Brian Sore (Royal Town Planning Institute): I can give an example of where spatial expression did not go so well in Northern Ireland. I am a planner by background, but I was a chief executive in the Health Service, where I was involved with a hospital trust. We recognised that spatial expression fell down as a result of there being no co-ordinating role. In planning hospital facilities, the Department of Health, Social Services and Public Safety specified what it wanted and then informed the community what will be sustainable. However, transport and employment issues meant that we had to involve other Departments. That required co-ordination across Departments, and that did not happen. Only one body could have brought those different views together, and that was the Planning Service, because it can consult on a range of issues across all Departments. That is an example of where spatial expression did not work. However, it could have worked, if someone had been responsible for local spatial plans.

734. The Chairperson: You said, Mr Worthington, that you have a personal example of where it did work.

735. Mr Worthington: For a considerable time, I have been working on the H2 housing zoning on the Bunrana Road in Derry/Londonderry. That is an area of 280 acres of land zoned for housing in the Derry area plan. It is the largest example of single zoning in Northern Ireland, and it was, at one stage, the largest example of it in the UK. It will deliver 3,500 houses, which is equivalent to a town the size of Portrush. The private sector, in conjunction and in collaboration with the Planning Service, considered that community's needs and planned an urban extension to the city. The area will include a primary school, a church, and large amounts of public open space, which the council will adopt. It will include a high street with a mix of retailing uses, such as convenience shops, a health centre and even a public house. The bringing together of all those elements was, essentially, facilitated by the planning office in Orchard House. It brought to the table the council, Roads Service, Northern Ireland Water, and all the other branches of government that were needed to produce an plan that could be implemented.

736. In the end, the plan-making part came together relatively quickly. Discussions on how to effect those plans on the ground, through the article 40 agreement, took somewhat longer. However, by and large, it was a very successful planning exercise. When that development goes ahead, it will have all the key elements that society needs. That is my personal example. We employed a similar scenario in a site off the Rathgael Road, but it is nowhere near as big in size — it does not have the same quantum.

737. To add to what Gavin said, when our former president was in Committee last year, she said that you might be surprised to learn that the number of teenage mothers in an area is a spatial planning issue. It is. However, she did not elaborate on what she meant by that. Think about it: the services that teenage mothers need, such as childminding, community facilities, education for children and health care, need to be close at hand. I am generalising, but the fact is that teenage mothers tend to live at the lower levels of society and therefore do not have access to personal transport in the same way that the middle classes do. Such facilities need to be close at hand in those sorts of areas. Obvious synergies exist between what they and other parts of society, such as elderly people, need.

738. An opportunity exists to make use of school buildings in the evenings for other forms of education, particularly if those are sited together with community facilities. In fact, we did that on the Bunrana Road. Various Government plans can come together to effect such provisions in the community. The plans, programmes and policies of local councils, the Department for Social Development and the Department of Health, Social Services and Public Safety can align to produce an output that has a much wider effect. In short, they can produce an output that is more than the sum of its parts.

739. Mr Ford: Were I a cynical local councillor, I would say that some planners claim to have a particular professional expertise in balancing a range of concerns about a proposed development, whether those be environmental, social or economic. In your submission on climate change, you appear to suggest that the dangers of climate change, and the need to mitigate those, should overcome everything else. What gives planners the expertise to tell the rest of the world that climate change is the enduring factor in an area?

740. Mr Worthington: That document may have been watered down; earlier versions of it make a stronger case on that point. The general feeling is that we need immediate action, and, therefore, that there should be, for want of a better phrase, a "survival override". That is the phrase that officials at the Royal Town Planning Institute headquarters used; it is not something that I have simply pulled out of the air. I was never particularly happy with that phrase. However, there should be some kind of override in place to deal with a situation in which the potential consequences are so catastrophic that normal processes need to be suspended.

741. For example, if the Severn barrage, which has the potential to provide 5% of the UK's energy needs, were built, it would cause significant environmental damage to the low-lying wetlands around the Severn. If it is not implemented, however, the UK will need to obtain that 5% worth of energy from somewhere, most likely from burning carbon, which will emit that volume of CO₂ back into the atmosphere. The outworkings of climate change mean that sea levels will rise and probably destroy much of those wetlands anyway. The presumption is that Government could effect that scheme in the knowledge that is having an impact.

742. Mr Ford: That might be an unfortunate example, given the people who are currently visiting us, to whom we are not supposed to refer. The specific issue is who has the expertise to make that kind of decision? Can planners claim that they have that expertise?

743. Mr Rafferty: We are not experts in the science of climate change. Our expertise filters into policy so that planners can make informed decisions about policy and planning applications. Planners depend on the most up-to-date information available in order to weigh up and moderate different interests and make decisions.

744. The Royal Town Planning Institute stresses that Government cannot wait until they have all the information before they make a decision; they need to intervene now and do something to mitigate the dangers of climate change. We need to begin, gradually, the process of adapting to climate change and its impacts. Once we have done that, we can refine the science, statistics and policymaking process.

745. Mr Ford: The majority of us probably agrees with your general concerns. However, what would you say to the people in this Building who — perish the thought — might not entirely agree with you about the potential threat of climate change?

746. Mr Sore: One must ask who else is in a co-ordinating role who could take on those decisions. Ultimately, those decisions may be political and will have to be addressed in a political forum. However, there are professions that are apolitical and with no vested interest whose wish is to cross those boundaries. That is what is important in the planning system in Northern Ireland. It sits outside of political influence but feeds back in advice and recommendations to the political forum. Only then can decisions be taken. As professionally trained planners, we feel that we are in a good position to do that.

747. The Chairperson: It is good to receive information and opinions on climate change that will feed into our inquiry from professionals such as you. Thank you for your time.

21 May 2009

Members present for all or part of the proceedings:

Mr Patsy McGlone (Chairperson)

Mr Cathal Boylan (Deputy Chairperson)

Mr Roy Beggs

Mr Trevor Clarke

Mr David Ford

Mr Tommy Gallagher

Mr David McClarty

Mr Ian McCrea

Mr Daithí McKay

Mr Alastair RossMr Peter Weir

Witnesses:

Mr Sam Knox

Mr Gary McFarlane Chartered Institute of Environmental Health

Dr Brian Hanna

Ms Karen Smyth Northern Ireland Local Government Association

Ms Eileen Campbell

Mr John Best

Mr James Brown Ulster Farmers' Union

Mr Graham Furey

Ms Aileen Lawson

Ms Patricia Mackey

Ms Emer Murnaghan Northern Ireland Climate Change Partnership

Mr Raymond Smyth

Mr Colum Delaney Royal Society for the Protection of Birds Royal Society for the Protection of Birds

Mr James Robinson

Mr Glynn Roberts Northern Ireland Independent Retail Trade Association

Mr Paul Stewart

Mr John Hardy

Mr Connaire CTS Projects

McGreevy

Mr Hans Schreuder

748. The Chairperson (Mr McGlone): We will now take evidence from the Chartered Institute of Environmental Health (CIEH), which is a registered charity and the professional voice for environmental health. It sets standards, and accredits courses and qualifications for the education of members and other environmental health practitioners. It also provides information, evidence and policy advice to local and national Governments, and environmental and public health practitioners in the public and private sectors.

749. Members have been provided with the CIEH's submission and a copy of the specialist adviser's comments. We are joined by Gary McFarlane, who is director of the Chartered Institute of Environmental Health, Brian Hanna, who is president of the Chartered Institute of Environmental Health, and Sam Knox, who is chief environmental health officer for the Southern Group Environmental Health Committee. Mr Knox, you are a man of many hats.

750. Mr Sam Knox (Chartered Institute of Environmental Health): Absolutely.

751. The Chairperson: It is good to see you all today. We already have your submission, so this is an opportunity for you to provide a synopsis, lasting about 10 minutes, of your position and any supplementary information. After that, members will have the opportunity to raise queries. Have you agreed on the order in which you want to speak?

752. Mr Gary McFarlane (Chartered Institute of Environmental Health): Yes; however, first, I thank you for the opportunity to come here. The gentlemen with me need no further introduction, because you introduced them admirably; thank you. I hope that their expertise and experience will add to today's evidence session.

753. From the outset, I want to make a couple of points. As you might have gathered from our submission, our approach is that climate change is a critical health and quality-of-life issue that needs to be addressed. Mitigation and adaptation will be required in order to do that successfully. Members will also have gathered from our submission that we are a part of the Climate Change Coalition — now the Stop Climate Chaos Coalition — in Northern Ireland. I do not propose to reiterate its submission. The CIEH fundamentally agrees with and supports the coalition's primary call for a proper statutory framework and mandatory targets for Northern Ireland. It is essential that the Assembly provides leadership, direction and commitment on that. The coalition will elaborate on that.

754. I will not go through the entire paper that we submitted to the Committee on the health implications associated with climate change. I have picked three matters to illustrate in detail the implications for Northern Ireland that arise from not investing positively in addressing climate change. I say "positively" because it should be seen as an investment not a cost. The three elements that I have chosen from the many available are food poisoning, skin cancer and extreme weather events.

755. In the case of food poisoning, evidence demonstrates that doing nothing to mitigate climate change and to contain global temperature rises at a manageable level could result in around 10,000 additional food-poisoning cases in the UK. An extrapolation of that figure, based on population size and the known cost to the economy of food-poisoning incidents, shows that food poisoning could result in approximately £3.9 million in extra spending in Northern Ireland.

756. The consequence of doing nothing in response to the challenge posed by skin cancer will be a significant rise in its incidence. A study carried out in England and Wales in 2002 — there is no similar study for Northern Ireland — estimated that, at that time, skin cancer cost the economy around £190 million overall.

757. Finally, it is now fairly widely accepted that the pattern and frequency of extreme weather events are caused by climatic changes. We are all familiar with the flooding incidents in Northern Ireland. The Assembly's research puts the cost to the public purse of flooding incidents in 2007 and 2008, in Northern Ireland, at about £6.2 million.

758. The point that I make in those three examples is that if the Assembly and public and private society do not collectively respond to the challenge, the economy and the public purse will face significant additional costs. That is why I used the word "investment" in my opening remarks. Let me be very clear: it is still possible to deal with climate change. Northern Ireland can play its part and step up to the plate to meet the targets that we must set, but time is running out. Action and investment are needed quickly.

759. The latter section of CIEH's submission to the Committee goes into some detail on the health impacts. Climate change is not an issue for the Department of the Environment or the Committee alone; it is a matter for society as whole. It is important that investment comes from across Government. However, suffice it to say that the impact and the detail of health costs have

not been terribly well extrapolated yet. That is important work that should be done. When the Committee draws up its recommendations, it may wish to consider the need for further scoping work and a clearer understanding of the health costs — human and financial — to Northern Ireland. The institute is happy to work with the Committee on those matters.

760. Dr Brian Hanna (Chartered Institute of Environmental Health): Ultimately, there is worry and concern about the whole issue. The chartered institute's approach to the matter is the same as that for all policy that it develops, and on which it tries to influence others, and is based on the best possible scientific evidence that can be found, whether it is on food poisoning, climate change or anything else.

761. In legal parlance, the institute's view on climate change is that man's contribution is beyond reasonable doubt. Climate always changes, and, as we all know, there are natural rhythms. However, our view, which is based on the evidence that we have considered, is that there is an unparalleled dimension that is speedily moving forward.

762. There are positives. Putting another hat on, I am the deputy chairperson of the Northern Ireland Science Park, and I am involved in job creation and innovation to create new types of jobs. Doing nothing will cost an awful lot of money in GDP terms, and that was well articulated in the Stern Report. However, we can also invest in the future and create added-value and knowledge jobs. Another Department has commissioned the regional innovation strategy to nurture and sustain a fertile innovation environment in which the region's knowledge economy can grow, prosper and create jobs and wealth.

763. From our studies on environmental health and public health, we know that improving health is not just about getting people into hospitals, trying to make them well and prescribing various drugs for them; it is also about the social implications and pressures that people experience. That is why we have a problem with inequalities; the poorest people suffer from the worst health. The poorest people in the world will suffer the most from climate change, and we have to play our part in addressing that.

764. Within the regional innovation strategy, MATRIX, the Northern Ireland science industry panel, recently examined new types of jobs. MATRIX is a business-led body that has university involvement, and it focuses on clean and green future world markets. It focuses on the types of industries and businesses that could add value to Northern Ireland, create jobs for our own people, continue to make an impact on climate change and provide support for the rest of the world. We also have the jobs that are so important to us in health and well-being organisations, and the European Connected Health Campus is based in Belfast.

765. All of that is happening at a time when our traditional industries have been run down, and we have to look for a way forward. Therefore, although we have to mitigate certain factors and adapt to issues such as flooding, climate change presents opportunities for us. One hundred years ago, we were at the cutting edge of technology with businesses such as Harland and Wolff, which was a big marine engineering company. Presumably, Harland and Wolff still has the skills to develop tidal and wave technologies to generate energy. Therefore, I want to present those positive aspects as part of the argument for Northern Ireland playing its full part in combating climate change.

766. Mr Knox: I want to bring the discussion down to local district council level. Councils are well placed to deliver locally on climate-change issues and can thereby demonstrate good civic leadership to our communities. To do that, some of our councils have engaged in environmental-management systems accredited to the internationally recognised environmental standard ISO 14001, such as the Sustainable Together through Environmental Management (STEM) project, which has demonstrated the work that we do with local businesses, and the Community Eco-

Challenge. The Chairperson will remember the latter, because it provided an opportunity to visit south Armagh and Craigavon to see how interventions by councils on transport, food, waste and energy had changed the behaviour of those communities. I will not dwell on those projects, because the Northern Ireland Local Government Association (NILGA) presentation will go into a wee bit more detail on them.

767. I will concentrate my remarks on what is required at district council level. Mention has already been made of the sustainable development strategy, which was launched some years ago by the then Secretary of State. My understanding is that that has now been parked and a new sustainable development strategy and implementation plan are being written. That is so long in the making that it is creating major problems for Departments, district councils and other public bodies because we do not have the strategy that we need. Chairperson, if you have any influence over the Office of the First Minister and deputy First Minister (OFMDFM), it would be helpful if you could give the new strategy a push in the right direction.

768. A statutory duty on sustainable development has been created for all public bodies. However, no guidance has been issued on what they should do to fulfil that statutory duty. Simply because sustainable development and climate change are inextricably linked, something must be done about those issues.

769. Furthermore, a sustainable development stakeholder group, which had representatives from all Government Departments and other agencies, was created by the DOE some years ago, and it was then taken on by OFMDFM. That has foundered, and it must be re-formed, re-actioned and revitalised as a matter of considerable urgency.

770. A declaration for climate change for councils has been actioned, and I understand that it has been written but has never seen the light of day. A funding stream is necessary to enable councils to take forward their duties in the context of such a declaration. That exists in all other parts of the United Kingdom apart from here. The need for funding must be recognised, and moneys must be ring-fenced for councils to work with communities, the business sector and the like.

771. Moreover, there should be a requirement in law for councils to produce sustainable development strategies and action plans. Even more importantly, if that is done, a system must be put in place whereby councils report on their progress in meeting actions, particularly with regard to climate change in their areas.

772. Over the past few days, flooding has been on everyone's minds. We had significant hailstone showers yesterday. Some of the changes in weather patterns are undoubtedly due to climate change. I reflect on the flooding of August 2008 and the difficulties that elected members and councillors had because people in their communities looked to them for help when their houses were being flooded.

773. On 21 April 2009, a draft flood and water management Bill issued for consultation in England and Wales. The draft Bill does not relate to Northern Ireland, but it would be well worth looking at a similar Bill for Northern Ireland. Such a Bill would reduce the likelihood and impact of flooding in future years. It proposes to give councils a significant lead role in calling agencies to task for non-delivery of actions that they should have taken.

774. The Sustainable Development Commission published its report 'Stock Take: Delivering Improvements in Existing Housing' in 2006. That report was commissioned by the Office of the Deputy Prime Minister. It talks about existing homes throughout the United Kingdom and how they can contribute to major gains in energy efficiency and waste reduction. Given that 27% of carbon dioxide emissions into the environment come from existing domestic buildings, could

communicating with the general public and making a grant available to them simply and easily make a major impact in the reduction of CO2 emissions from housing?

775. The building fraternity must be encouraged to think about building carbon-neutral homes for the future. In 2011, there will be a new regime of 11 councils. Those councils will have community-planning powers, and, as sustainable development begins to manifest itself properly in Northern Ireland, they will be well placed to help deliver what is needed locally, let alone nationally.

776. The Chairperson: Thank you, Mr Knox. Much of what you have said has been extremely informative and useful. We will probably have to follow up a number of your points.

777. Mr Boylan: Thank you for the presentation. Policies, such as the waste management strategy, are being introduced. Are the targets high enough? Under the present policy, are those targets achievable and are they robust enough to deliver results?

778. Most politicians are out canvassing for the elections, and, as we hear about more outstanding issues such as job losses and the recession, perhaps people think that the climate issue is not pressing. The issue must be addressed anyway.

How might we bring awareness of the practicalities and realities to the ground? We need to change attitudes and to secure public buy-in. How might we tie that in?

779. The Chairperson: I want to follow up briefly on a point on which Dr Hanna touched. A big selling point is that there is a win-win situation. There can be a win for the environment, and there can be a win for the economy, and that seems to have been lost on some ill-informed people. Can you expand on that idea?

780. Mr G McFarlane: I know that time is of the essence, but your point is one that I was going to reinforce in our closing remarks. You are absolutely right. Furthermore, it is not only the economy that will win. Other significant issues that are critical priorities for society will benefit if climate change is tackled. Obesity, for example, is fundamentally linked to climate change. It is not a coincidence that the most obese nation in the world, the United States, is also the most carbon intensive.

781. However, to return to the question about engaging the wider community, I said that tackling the problem will require a partnership approach. It will require leadership and commitment at Government level but also, ultimately, roll-out and delivery on the ground. Local government is a key element of that, which is why we have aimed some remarks at it, in particular. I mean local government in its widest context; not simply environmental services in local government, although they have a particularly unique opportunity, especially with the business community. Therefore, one must look at local government as a conduit through which to act. Frankly, there has been a policy vacuum and a lack of leadership from central Government on sustainable development. Sam Knox made that point. Local government has tried to get on with it despite that, but they need support, commitment, resources and investment from central Government.

782. Dr B Hanna: Climate change is largely focused on energy issues. All sorts of complications arise, such as the security of the supply of energy. However, we all know that, to have a low-carbon economy, we must reduce the use of fossil fuels. We have to create a new approach to the way in which we design and build our houses. The Government have huge influence over such matters. Sustainable development is about economic, social and environmental well-being: the Government cover all those areas. One of the crucial tasks for the Government is to produce a central sustainability policy that cuts across all Departments and Committees and that can be

delivered cohesively. That started out in the Department of the Environment but was moved to OFMDFM, where it sits at present.

783. I sat on the Sustainable Development Commission UK for six years. The biggest problem with Northern Ireland during my time there was political instability and the fact that we were dealing with direct rule Ministers. We now have a devolved Administration with a number of Departments. The economy clearly sits within the Department of Enterprise, Trade and Investment, as does the Northern Ireland Science Park, which I mentioned. Transport sits in another Department, and housing in another. One of the biggest policy challenges for the Committee is to pull all that together to find a cohesive way in which to address sustainability.

784. There is no doubt that if we are to produce a low-carbon, prosperous society in Northern Ireland, we will have to change the whole balance of the way in which we do things. That means creating new types of industry. We do not have a set of simple answers to what are very complex problems, but the way forward must embrace every Department, all aspects of local government and the various other public bodies that exist. It must, of course, embrace the private sector, too, because it is the private sector that will deliver wealth creation. That is why it is important that we have initiatives such as the Northern Ireland Science Park, which is a place for the best brains coming out of universities to work to develop new industries and help them to grow. It is not generally known, but there are around 1,500 graduates working in that area of Belfast. If that particular initiative were not there, those people would not be in Northern Ireland. They would be in the Republic of Ireland, Great Britain or further afield.

785. The Chairperson: Or they would be on the dole.

786. Dr B Hanna: I am passionate about the fact that we have to stand on our own two feet and solve our own problems, as people in the past had to do. We cannot simply hope that somebody will give us a handout to help us along without our playing a full part in making the necessary changes. It falls to you as our elected representatives to drive that forward.

787. Mr Boylan: Where are we on policy? The problem with policy is that so many Departments are involved in its drafting, and it is all about sustainability. The use of the carrot and stick is often quoted, but I do not believe that we should be using such methods. There should be proper policy and proper consultation and gathering of information to deliver that. Where are we on policy in relation to the targets?

788. Dr B Hanna: You mentioned waste management, and clearly we are driven by European demands in that area. If we do not meet those targets, we will pay both a financial penalty and a penalty for not having modern waste-management systems in place. There is always a penalty for not delivering.

789. We must create a policymaking environment that sets targets that are both achievable and stretching. For example, we have been asked to cut CO₂ emissions by 80% by 2050, which, by any stretch of the imagination, is a tall order. Most of us believe that it is achievable, but it is only achievable if we take it seriously and make serious decisions about the way in which we go about our business.

790. Mr Boylan: I am glad that you brought up EU regulation, because that is the stick approach to which I was referring. The EU has set those targets, and we must meet those targets. We must examine how we address those targets if we are to get the majority of the public to buy into achieving them. That is all that I am saying. It is OK to say that EU infractions —

791. Dr B Hanna: There will always be a need for a balance between the carrot and the stick. We are an environmental health institute, and many of our members enforce environmental laws

every day, as part of their jobs. Government — in our case this devolved Administration — make laws that must be enforced, but we must also attempt to persuade people of the value of doing things. There will be no quick fix on climate change, and we will not be able to compose a list of fancy solutions to our problems without making sacrifices. A behavioural change must be made, in addition to a technological change.

792. All targets will revolve back from the 80% reduction in CO₂ emissions by 2050. That is the benchmark that we must work from, and we must then decide how we will achieve that target. In doing so, we must examine all areas of life, such as transport and housing, to ascertain what we need to do reduce carbon levels to the point at which we can live within the 2°C increase. If it gets any higher than that, we really will have serious problems.

793. The Chairperson: Do we require primary legislation to ensure that Northern Ireland lives up to its commitments?

794. Mr G McFarlane: Yes.

795. Dr B Hanna: Yes. We believe that we do.

796. Mr G McFarlane: Brian referred to the 80% target, but we do not have that target in Northern Ireland, and that is the point that I was trying to make in my opening remarks. The Climate Change Coalition will expand on the rationale behind that, but, essentially, we do not have any such targets here. Indeed, until the Assembly sets that kind of framework and imposes that target on itself, Government will not be shown to be displaying any commitment or leadership on the issue. Therefore, how can it expect individuals who live here to take those targets seriously?

797. However, all that needs to be cast in a positive light. It is positive, and Mr Boylan is quite right to say that a response is required from the public as well as leadership to be shown by Government. We must be positive, because the changes that are needed to meet those targets are positive — they are not costs.

798. Furthermore, I still believe, and I am sure that the Committee also does, that, even in 2009, there is more to life than the amount of money that we make and the amount of money that we have available to spend. This challenge enables us to return to some of the core values that are important to life, such as community and the wider society. We must portray making those adjustments as benefits, not costs.

799. The Chairperson: Yes, but do we require primary or secondary legislation?

800. Dr B Hanna: It could be that, once primary legislation is introduced that stipulates what Northern Ireland must achieve, everyone in society will react. I was previously the chief executive of Belfast City Council, and the Department that the council worked through set it a target that showed its CO₂ emissions at present and what level those emissions needed to be at, and when. People in the council then sat down and worked out how that target would be met. If legislation were to be introduced, that would also happen in other organisations across Northern Ireland. It is like anything — if one is given a financial target, one must try to meet it.

801. I genuinely believe that a serious effort must be made. I hear people say that this is only a small place, and that anything that we do will not make a difference. It will make a difference to other people in the world. I attended a lecture last week given by an Indian professor at Queen's, and he made it very clear that what the people in that part of the world expect of the Western World. We will not get away with saying that this is only a small place, and that it does

not affect us. It will affect us. It will not wash if we say that it is up to people in India and China to sort themselves out so that it will not affect us as much.

802. Mr Gallagher: Dr Hanna has covered most of what I was going to ask. I agree with him about the economic opportunities that are afforded us as we try to become more energy efficient, as we hopefully will in future.

803. Will you clarify the issue of public health and food poisoning? Why will there be more instances of food poisoning if we do not control global warming? Will you tell us again how much you estimate that that will cost the Health Service?

804. Finally, Dr Hanna made the point that the different Departments — OFMDFM, DETI, DFP and DOE — must get their act together, and be seen to be pulling in the same direction. Do you agree that we must perform much better in that respect? However, that must be done against a background of the innovation and research centres about which you have spoken. Are you happy with the quality in that particular sector, and, indeed, in our universities? If the Departments do pull together, do you feel that we have the capacity here in Northern Ireland for that other, probably more important, aspect of research?

805. Mr G McFarlane: I will answer the query about food poisoning first. In simple terms, the predictions are based on the fact that we can expect a rise in the average global temperature, particularly during the summer in this part of the world. The statistics already show that, for some considerable time, there has been an increase in cases of food poisoning and food-related disease during the summer months. That is because of higher ambient temperatures.

806. Those figures are based on two things: the increase in temperature that we can expect as a result of climate change; and, potentially more complexly, the responses of certain bacteria and organisms to that increased temperature. Without going into the science, which I do not fully understand, that is a simplistic explanation of it. Those 10,000 additional cases are based on those kinds of projections.

807. The costs that I mentioned are derived from what the Food Standards Agency estimates to be the total cost to the economy. I should clarify that £1.5 billion is not just the cost to the Health Service but the total cost to the economy. That cost includes days lost from work, treatment by the NHS, and investigatory resources that are used to investigate those outbreaks. The current number of cases is 100,000, and one can extrapolate the outcome of a 10,000 increase.

808. Dr B Hanna: The Chief Medical Officer, Michael McBride, said:

"Current predictions on climate change suggest greater long-term impacts on health than any current public health priority."

That is a major statement.

809. Mr Gallagher: I have quoted that in the Assembly myself.

810. Dr B Hanna: It is quite an important statement. The Chartered Institute of Environmental Health deals with issues such as pest control. It may be that, given climate change, pests that we have never seen before in our country will suddenly appear. Some of those pests could carry disease.

811. Mr G McFarlane: I singled out those three things, but I could have picked others. I was trying to highlight the fact that it has not been scoped properly to find out the potential implications for Northern Ireland and the potential costs to the wider economy. That is a piece of work that is worth doing.

812. Dr B Hanna: On the final point, we have two excellent universities in the Province — Queen's University and the University of Ulster. Queen's University is a member of the Russell Group of universities, and I am a member of the senate of Queen's University. Both universities have strong records in engineering and in environmental and health issues, and both provide excellent graduates. However, if we do not provide opportunities for them here, they will go elsewhere. That is an important issue, but we are improving in that area. The Science Park is 10 years old this year. It was a good innovation, and there can be others, such as the work of MATRIX. Over the years, we need to develop low-carbon industries, and they will make a big contribution. However, the policymaking up here can have a major impact.

813. Sam Knox mentioned housing and the amount of CO₂ emitted by houses. One of the most important things about working in our business is building regulations. The Assembly makes those building regulations, and, if you make regulations that allow builders to construct houses that emit all kinds of emissions, such as CO₂, we will have more of it in the environment. However, if low-energy buildings are built, we will have a better situation.

814. The Chairperson: Before we move on, there are a number of issues that we need to seek clarity on from the respective Departments. The Northern Ireland Local Government Association (NILGA) will address its declaration for climate change in its submission, but some constraints seem to have been placed on that. Is that being worked through DOE or OFMDFM?

815. Mr Knox: It is being worked through the climate change adaptation subgroup.

816. The Chairperson: Is that subgroup part of DOE?

817. Mr Knox: Yes. A bid was put together on behalf of all councils in Northern Ireland, but it did not get INTERREG approval. However, it may require reworking. NILGA will talk about that later.

818. The Chairperson: We will expand on that with NILGA. We will have to seek further information from DOE. What is the host Department for the sustainable-development stakeholder group?

819. Mr Knox: The host Department is OFMDFM. It started off in DOE, and then it transferred to OFMDFM.

820. The Chairperson: We will probably have to chase that up to find out where it is. You said that the sustainable development strategy has been parked. That strategy is also with OFMDFM. Therefore, we will need to get an update from OFMDFM on what is going on there. You referred to the report on sustainable development, which was carried out at the request of the Office of the Deputy Prime Minister.

821. Mr Knox: That was the stocktake report, which was produced in July 2006. It provides a great deal of information. You need not read any more than the Executive summary, because it gives a great deal of information on what needs to happen.

822. The Chairperson: We may need to get a copy of that report to inform us. Finally, flooding was the major issue that hit us last August, and a draft flood and water management Bill was laid before Parliament on 21 April 2009.

823. Mr Knox: That is correct.

824. Mr Ford: You cleared up a number of issues about how the sustainable development strategy is handled, but I want to ask you about housing, because you have considerable experience in that area. Mr Knox referred to encouraging builders to go carbon neutral for new buildings, but we also have the problem of dealing with the existing housing stock. Have you done any work to estimate what sort of grant is needed to get people to do key things, such as installing home insulation? What are the potential economic benefits of that? If we are to save one megaton of carbon equivalent, we will not do it purely by making every new house carbon neutral, because we would still have an ongoing problem.

825. Mr G McFarlane: We have not done any detailed research on that, but, to the best of my knowledge, that research exists at a national level.

826. Mr Ford: If you could find out where that exists, it would be helpful.

827. Mr G McFarlane: I will find that out. I have seen that research, and I will try to get back to the Committee with an answer to that.

828. Dr B Hanna: The Northern Ireland Housing Executive and the Energy Saving Trust are responsible for improving energy efficiency in dwellings, but, in England, that is a local government function. Therefore, the Housing Executive will hold information about that, but you are quite right to make that point.

829. People often forget that if an office block is built in the centre of Belfast, it will be there in at least 50 or 70 years' time. You must get that across to people and ask them how much energy they will have to use to heat or cool the building for the next 50 years. They must factor into their decision-making process the quality of the building that they build.

830. If people continue to build to the lowest possible standard, which tends to be building-regulations standard, and without a little more common sense and good design, they will continue to build buildings that require much more energy to heat than is necessary. Engineers and architects know more about that than I do. It does not make sense to build a building that will last for the next 50 years, during the very period when we face that problem, without taking that seriously. Existing properties must have much more home insulation.

831. Mr Beggs: I want to touch briefly on building regulations, which you mentioned. They have raised another issue in my mind. Of course, building regulations are controlled by DFP. Another critical Department is therefore fragmented on the issue. You have highlighted another significant problem.

832. We will ask the Department what is happening with the sustainable-development stakeholder group. Can you provide some background on what it did in the past and on when it last met to do anything?

833. Mr Knox: Two of us who are present had the opportunity to sit on that group. We tried to call both DOE and OFMDFM to account in the context of slow progress and to help encourage them to produce a robust sustainable-development strategy for Northern Ireland, with key performance indicators, in the hope that a system would be put in place. We asked that Departments right across Government be called to account on their delivery.

834. Mr Beggs: When did that happen?

835. Mr Knox: It has happened throughout the past five years.

836. Dr B Hanna: It has been ongoing for a long time. Practically every non-governmental organisation that had an environmental or, indeed, a social aspect was involved in that. I am sure that your specialist adviser can give you that information.

837. We went to Government and tried to help them and give them a steer. It was not easy because the sustainable-development strategy started out with DOE. At that time, there were all kinds of issues about whether the Assembly would start up again. It had not been in place for a while. Eventually, the decision was taken that the matter should go to the centre for the very reason that many Departments were involved and that one at the centre should have overall control. I will leave it to the Committee to debate whether that is a good thing or a bad thing. It is not my job to tell you how to run the Government. [Laughter.]

838. It is very difficult to get every single Department that has input into the matter to work together to produce a sustainable-development strategy.

839. The Chairperson: You were a chief executive: you know what would happen if you let that rain on the parade. [Laughter.]

840. Mr Beggs: In order to move the issue forward, it is important to go for the low-lying fruit first so that people will see the benefits and will want to progress further.

841. Initiatives that help to improve people's health and also help to minimise adverse impact on the environment include 'Safe Routes to School' and the Brownlow cycling initiative, which the Committee has seen. Are there any other initiatives in which you or your members are involved that help to improve community health while also being beneficial to the environment?

842. Mr G McFarlane: There is a plethora of initiatives that demonstrate that, such as community food gardens and the Sustainable Together through Environmental Management (STEM) project, which Sam has been involved in and of which you are aware, that works with businesses.

843. Earlier, I mentioned obesity. A strong correlation exists: fatty and salty foods are highly processed and require a lot of carbon to produce. Therefore, reducing production of that kind of foods reduces carbon emissions. Walking instead of taking the car is good for the environment as well as for one's health. We need to start to rack up the complementarity of those messages so that people realise that there are three or four wins. It is not about the environment, obesity or economics but all of those. There are many examples, which I will try to provide to the Committee.

844. The Chairperson: It would be useful if you could provide that information in written form. I know that we could talk about that for a fair wee while today.

845. Mr Ross: Earlier, Mr McFarlane mentioned the link between obesity and climate change. I must say that that is a pretty tenuous link. That sort of sensationalism does the issue no credit. Will you provide a bit more detail about that? I know what you are saying, but there is childhood obesity because children have more entertainment at home. They play computers rather than go out and run about. There is also more entertainment at home for adults. We have more things around the home that keep us entertained in the evenings, which means that we do not have to go out. To link that to climate change or vice versa is a little bit tedious. One of the major things at which we are considering for sustainable transport is increasing public transport. That will reduce CO₂ and everything else, but it will do nothing to reduce obesity, because some people will still not walk anywhere. To link those two issues together will make headlines, but it is not particularly —

846. Mr G McFarlane: First, there is considerable research that makes those links, and I will happily provide that research to you. Secondly, I absolutely agree with you. I am not saying that obesity causes climate change but that many of the behaviours of people who suffer because of obesity are adversely linked to contributing to climate change.

847. Mr Ross: Is that not a fairly weak link?

848. Mr G McFarlane: I do not think that it is a weak link at all. I will happily give you the evidence.

849. Mr Ross: I look forward to seeing that.

850. The Chairperson: Perhaps you can provide that to the entire Committee because it would be useful to hear the consequential roll-out of the logic of your argument.

851. Thank you very much for your time. The issues that you drew to our attention proved to be very interesting. It was good to see you all.

852. Members, an issue was raised about building-control standards. As the Department of Finance and Personnel is the agent that is responsible for those standards, it may be useful if we wrote to it to find out what the current position is.

853. Mr Beggs: It is important that we do that, but we are also going through the review of public administration (RPA) process. In England and Wales, building control and planning are in the one area, because they are so interlinked. We have seen that they are also interlinked in this instance. It is an important issue that will be addressed in the RPA process.

854. The Chairperson: OK. From DFP, we will establish those issues about building control in the context of its contribution to minimising climate change.

855. We will now hear oral evidence from the Northern Ireland Local Government Association (NILGA). All of us in this room should know that NILGA is the voice of local government. It seeks to promote, strengthen and modernise the sector. The association is supported by all five political parties and all 26 councils in Northern Ireland. It provides a forum for debate, develops policy positions for the local government sector based on the best policy advice, facilitates the relationship between Government and the sector, provides cost-effective services on behalf of the sector and seeks opportunities to develop and promote local government in general.

856. Karen Smyth, the head of policy at NILGA, is here with us today. Karen, you are very welcome. It is good to see you again. Eileen Campbell, who works in the Southern Group Environmental Health Committee's business support unit, is also present. Eileen, it is also good to see you. You have about 10 minutes to give us an overview as to where you are, to complement your submission. We will then take a few queries and questions from members.

857. Mr Beggs: It is appropriate for me to declare an interest as a local government councillor in Carrickfergus Borough Council.

858. The Chairperson: I am a member of Cookstown District Council.

859. Mr McKay: I am a member of Ballymoney Borough Council.

860. Mr Ford: I am a member of Antrim Borough Council.

861. Mr McClarty: I am a member of Coleraine Borough Council.

862. The Chairperson: Now that we have all declared our interests, we can continue with our interest.

863. Ms Karen Smyth (Northern Ireland Local Government Association): Thank you for the introduction. I apologise for the fact that I do not have an elected member with me. As you will all be aware, our members are extremely busy with the current reform of local government. That clashes with —

864. The Chairperson: I certainly hope that they are busy with other things, too.

865. Ms Smyth: Climate change is a key issue for local government owing to the huge impact that it will have on local communities, the economy and sustainability. NILGA was pleased to be requested to submit evidence to this inquiry, and we hope that our comments are taken into account when an outcome is being developed.

866. Local government work on issues relating to climate change has already begun. Some councils are more active than others in that area. From our experiences and from the work that has already taken place, we can inform the Committee on a number of issues.

NILGA has developed a draft declaration on climate change that the councils will sign and that is similar to the Nottingham, Scottish and Welsh declarations. I believe that the Committee has access to that work, which is still in draft form.

867. Due to a lack of resources in local government to implement the commitments that have been identified, and a lack of adequate steer from Government on climate change to take the declaration forward, NILGA is attempting to leverage funding from Europe in order to enable councils to start work on the mitigation and adaptation measures that will be so critical to communities. The INTERREG IVa committee initially rejected our bid for project funding; however, we appealed that decision and are meeting a review panel on 3 June. The details of the project were forwarded to the Committee Clerk for members' information.

868. In general, NILGA believes that there is an urgent need for a ministerial champion to take the climate change issue forward, by working in either a climate change interdepartmental working group or a sustainable development working group. We need adequately resourced legislation to be put in place to take forward the work on climate change, which is similar to that of the Climate Change Bill, and to provide an overarching strategy that will enable the implementation of such legislation. Given the current economic climate, if a clear and coherent strategy were implemented, it would save people money, particularly those suffering fuel poverty.

869. The targets for Northern Ireland should be proportional and appropriately related to the current EU targets. Although we acknowledge that, ultimately, we can have little impact on mitigation, local government in Northern Ireland takes its civic leadership role very seriously and believes that timely implementation of mitigation targets will provide a strong signal to the community and businesses at home and in other countries that they can have more of an impact. It is vital that we take the lead on that core issue.

870. It is necessary to mitigate climate change, and we have proposed the Achieving Sustainable Councils (ASC) project to assist in doing so. For local government and other public service delivery organisations, the main challenges will be seen to involve adaptation. NILGA, therefore, endorses the Northern Ireland Climate Change Impacts Partnership's comments to the Environment Committee on adaptation. Government need to plan for change and ensure that the

citizens of Northern Ireland are adequately protected in the face of the challenges that climate change presents.

871. NILGA recommends that the Environment Committee examine the valuable work of the UK climate impacts programme in that area and makes recommendations to the Assembly to take account of that work when planning any future development. It is vital that adaptation measures be built into the Programme for Government and that adequate resources be provided for that work.

872. The Assembly Departments will need to ensure that any future development can withstand the challenges that climate change will bring and to protect existing development. That will impact on each and every Department. It will be necessary to develop and implement a strategy that ensures that all policy that Government bring forward is proofed for climate change, mitigation and adaptation.

873. Sam Knox already alluded to the fact that the sustainable development strategy has not delivered. There has been little implementation of sustainable development issues, because they have been frequently put in a box labelled "too hard". Local government is still waiting for adequate and appropriate guidance on how it should implement the statutory duty introduced in that strategy. There is no point in introducing a strategy that will not be implemented. Critical to the success of any Northern Ireland climate change strategy will be ensuring that all stakeholders are aware of their responsibilities and enabled to carry them out.

874. A review of all existing Government strategies also needs to take place to ensure that climate change is taken into account. For example, there is no mention of climate change in the existing waste management strategy, even though the targets expressed in it are as a direct result of EU climate change policy. The whole reason for landfill diversion is the reduction of greenhouse gases.

875. In NILGA's experience, Government find working on cross-cutting strategies particularly challenging. That has been amply demonstrated by the waste strategy and the sustainable development strategy. To ensure the success of such strategies, it is vital to have cross-governmental ministerial oversight. There must also be ministerial pressure to perform, and an appropriate level of buy-in from officers.

876. We have witnessed the resolution of particularly difficult issues such as PPS 21 through joined-up ministerial working. Although that is encouraging for issues where there is less pressure from the electorate, in an environment where constitutional politics usually takes precedence, it has been the case that implementation of particularly complex issues such as sustainable development has fallen by the wayside. That leads back to my point about the fundamental need for a ministerial champion.

877. In the short term, we believe that, at the very least, a budget should be set aside to develop initial action on climate change and a communication strategy to ensure that the public understands the issues and the necessity to take action. As evidenced by the work that NILGA has done on preparing the Achieving Sustainable Councils project, local government is seeking innovative ways of retaining funding for work on climate change.

878. In our experience, those councils that have started to monitor energy use and reduce their carbon footprint have quickly saved large amounts of money, which has enabled them to pay for the officers whom they have employed. For instance, Ballymena Borough Council has award-winning energy-reduction and carbon-footprinting schemes.

879. Quick wins initially secured by the regional-government approach are likely to be followed by the need for resources to be made available strategically targeted to those areas in which most work must be done. I particularly draw attention to emergency management. At present, NILGA believes that emergency management, particularly by local government, is under-resourced and ill-equipped to deal with climate change as an ongoing issue.

880. The emergency-management role of local government will grow after the reform of local government. The proper resourcing of that role will be a key part of protecting public safety. NILGA is talking to the local government emergency management group about how to include climate-change adaptation in the long term and a fast response to severe weather incidents in its overarching local government strategy.

881. We are keen to continue to serve our citizens well in the face of what is likely to be a huge challenge to our economy and way of life. We are enthusiastic to explore how to prepare communities to adapt to climate-change challenges that they will face. Therefore, I call for the Committee to highlight the need for robust research in that area.

882. As Gary McFarlane has said, adequate and appropriate research must be carried out on how Northern Ireland can reduce its carbon footprint and on what must be done to implement any climate change strategy. Work must be prioritised and our universities supported in the development of new technologies. There is no reason why Northern Ireland cannot become a world leader in taking advantage of the huge economic development opportunity linked to work on renewable and sustainable technologies.

883. Eileen Campbell will brief the Committee on some examples of local-government good practice in working with communities and businesses to mitigate, and adapt to, climate change.

884. Ms Eileen Campbell (Northern Ireland Local Government Association): Sam Knox has spoken about the Sustainable Together through Environmental Management (STEM) project. We received €1.6 million for the same project through the east border region INTEREG IIIa partnership. We generated the other 25% in funding from councils and businesses.

885. The project aimed to help businesses and councils across the east border region to implement an environmental-management system to enable them to manage and reduce their environmental impact. We sought to reduce energy consumption and waste; to increase recycling rates; to prevent pollution of air, land and water; and to increase legal compliance by small businesses. The overall aim was to enhance the economic viability of small businesses by reducing their costs and keeping them out of court on pollution cases.

886. Small and medium-sized businesses make up more than 95% of businesses on the island of Ireland. They are major employers, but also major polluters and emitters of CO₂ — responsible for more than 80% of pollution incidents in Northern Ireland. Likewise, our councils are among the largest employers and play a key role in influencing and guiding the actions of their local business community.

887. That civic leadership role is displayed through the international standard for environmental management being conferred on councils — the ISO 14000 to which Mr Knox referred. However, all the southern councils are on one joint certificate. Therefore, they must all work together. If one council fails an audit, they all fail, so there is quite a lot of competition and accountability.

888. At present, 26 services across those nine councils in the east border region (EBR) fall within the system's scope, the range of which includes technical services, leisure services, environmental health, buildings and grounds maintenance, right through to major services such as roads and water in Louth and Monaghan. They are all on one certificate, and another 10

services are due to be included in the system this year. The INTERREG IIIa money has run out, but our councils are continuing to fund the initiative. As well as having another 10 services to take on board, Antrim and Omagh councils are paying us to roll out STEM in their areas.

889. However, a piece of paper or an environmental-management system is worthless unless measures are put in place on the ground. Examples of the progress that we have made in the Northern Ireland councils include the Southern Group Environmental Health Committee reducing its electricity use by 9% and its consumption of heating oil by more than 20%. Recycling has increased from 33% to 75%. The waste going to landfill from Ards Borough Council's civic buildings has been reduced by 25%. Down District Council has been able to divert more than 60% of its internal waste from landfill and to reduce its use of heating oil by 17% across the council estate. The technical services department in Dungannon and South Tyrone Borough Council has reduced electricity use by 13.7% and its heating oil consumption by 13.4% — 6% in the civic building.

890. That gives you a feel for what can be done through that one-to-one support and guidance.

891. We adopted an innovative approach to working with the business community, and we provided a one-to-one confidential advisory service, as opposed to the traditional regulatory approach that local government takes. That enabled our team to identify and overcome the barriers to operating sustainably that businesses face and the barriers that they face in complying with the legislation. We were able to provide funding for audit fees for their certification.

892. We worked with 287 businesses, and we put an environmental management system in place with those businesses. In fact, we worked with over 300 businesses, but some fell away because the cost of meeting the legislation was too great for them. At the end of the project, 233 businesses had achieved a British Standard for environmental management. A range of sectors in anything from construction to manufacturing and from hospitality to retail was involved. Some businesses with two or three employees were involved, and some with perhaps 150 employees were involved. A huge spectrum of businesses and sectors participated.

893. I will give you a feel for what we achieved: 71% of those businesses are making reductions in their energy use, and many businesses who joined later expect to make reductions through programmes that they are putting in place. When we initially went to work with those businesses, they did not even have a clue about what their consumption levels were. One of the first things that we did was to get them to measure what they were using before they started to reduce it. Seventy-four per cent of the businesses are making savings in waste, and the projected savings over the first five years for those businesses are £1.6 million on energy and £1.1 million on waste.

894. When those businesses joined the project, only one of them was meeting the requirements of the legislation that was applicable to it regarding the environment. We have produced 233 businesses that are effectively self-regulating. One can imagine the financial implications for Government if there are businesses that can regulate themselves through being audited by external bodies.

895. We trained over 10,000 people in the public and private sector on resource efficiency, climate-change legislation and a raft of environmental issues. In a survey, 80% of businesses said that we made them more competitive. They are now key players and are able to tender for contracts for which they were unable to tender before. They have not necessarily won all of those contracts, but they are in a position to tender because they have an environmental management system and they have reduced risk-management requirements.

896. We have made a positive contribution to growing the local economy, certainly across the border region, through balanced and sustainable development. On many occasions, we have been recognised as being an example of good practice. We have won many awards, including awards from Queen's University and the DOE for sustainable development. We won an award from Invest NI for small-business support, and we won regional and national training awards. It has been recognised that we provide an example of good practice in local government. We want that to be followed across Northern Ireland.

897. The community eco-challenge was launched by the previous Minister of the Environment, Arlene Foster, in 2007, and that project was funded by DOE. Committee members will be aware of that project, because you received a presentation on it and you visited two of the community groups that are involved with it. I will briefly go through some of the achievements that we made.

898. The project sought to encourage and enable householders to live more sustainably and to look at how we could reduce their ecological and carbon footprints. We worked with 100 households in the five council areas in the southern area. We focused on food, energy, transport and waste, which are the four big hitters on the ecological footprint and the carbon footprint. As we all know, those are also the four big hitters on people's pockets in the economic crisis.

899. We tried to encourage householders to make lifestyle changes to reduce their consumption and become more resource efficient. We achieved that in that we succeeded in reducing the ecological footprint of those householders by anything up to 25% and reducing the carbon footprint by anything up to 30%. On food, we reduced the footprint by up to 15%, and we were able to save householders £25 a week through looking at the food that they were buying. We tried to get them to reduce food waste in the home, which is estimated at £440 a year in an average home. The potential saving on food and food waste amounts to over £1,000 a year for many households that are struggling. We tried to focus on the impact of the food that people buy, what they buy and what they dispose of.

900. We tried to get them to look at local produce and organic produce, which would have a particular impact on the ecological footprint.

901. However, there is a financial barrier preventing many of those homes from purchasing organic produce. As a way to overcome that, we asked them to try to grow their own fruit and vegetables at home. I know that members have seen that. Some 92% of those participants started to grow their own fruit and vegetables at home. They are growing this year already; I have seen them. The cost for that is £45 per household, which is a minimal cost to buy the materials to get them started.

902. I know that members have seen the community garden in Cullaville. The environmental, financial and health advantages provided by that garden are benefiting the whole community there. The group are using that garden as a resource in their work with young adults with mental-health programmes, particularly problems related to suicide, and as a means of reducing antisocial behaviour.

903. We were able to reduce the housing footprint, which includes energy, by up to 38%, and made savings on energy bills of £200 per year. The measures that we took included installing energy-efficient light bulbs throughout homes. As a result of that, each household typically saved around £50 per year and around 170 kg of CO₂. Using radiator foils and turning their thermostat down by 1°C, the householders were able to save £89 per year, and around 500 kg of CO₂. The cost of those radiator foils was £40, so they got their money back in six months.

904. The Chairperson: I apologise; we are pressed for time today. Will you draw your remarks to a conclusion please?

905. Ms E Campbell: We did the same thing on transport. We considered various issues, such as car sharing and driving more sustainably. Ongoing commitments with those groups will deliver a 33% reduction in our ecological footprint, and up to a 40% reduction in our carbon footprint. Both of those projects demonstrate strong linkages and synergies with a number of local-government objectives, particularly those associated with climate change, energy, fuel poverty, waste management, transport, sustainable development, and health and well-being.

906. The Chairperson: I am sorry about that intervention, but we are short of time today.

907. Mr Beggs: You indicated that the project funding was €1.6 million, and you also spoke about the projected savings of £1.6 million on energy. Over what period was that saving on energy made?

908. Ms E Campbell: That saving was made by those 233 businesses over the first five years.

909. Mr Beggs: So that is an ongoing saving?

910. Ms E Campbell: Yes, absolutely. That figure is probably fairly conservative, because as the experience of those businesses grows, they will be able to consolidate and increase those savings.

911. Mr Beggs: Can you clarify exactly what part of Northern Ireland the scheme covered? Presumably there is a large part of Northern Ireland that was not covered by the scheme, where there has not been that type of assistance.

912. Ms E Campbell: The scheme was in operation across the east border region: Ards; Armagh; Banbridge; Craigavon; Down; Dungannon; Newry and Mourne; Louth; and Monaghan.

913. Mr Beggs: It seems to be a fantastic project that has helped businesses and individual households in a practical way. I am curious about why it has not been extended elsewhere.

914. The Chairperson: It also provides an example of good practice.

915. Mr Boylan: Thank you for your presentations. We can learn from the east part of the region. Perhaps you should have visited the eco-warriors in south Armagh; that was a good day out. You spoke about a ministerial champion. I will not comment on the present Minister of the Environment.

916. The Chairperson: You are safe enough now. [Laughter.]

917. Mr Boylan: It is recorded. There are so many issues that cut across Departments, and you spoke about an intergovernmental group. That is OK, but sooner or later there will have to be legislation. Other than the issue of resources and how that comes about, how do you think that we would deliver that? It takes so long to put legislation in place. If there were a ministerial champion, and work was carried out across Departments, each Department would have to do its bit to bring about legislation.

918. Ms K Smyth: The key to all of that is political leadership from all of the political parties. There must be commitment and buy-in at that level. The example of the sustainable

development strategy shows that, with the best will in the world, fantastic strategies can be pigeonholed and not taken forward.

919. That is such an important issue. We have a prototype of the sustainable development strategy so we could bolt on some measures to combat climate change and take it across Departments and across political parties. However, until we ramp up the pressure and get climate change recognised as a serious issue on the political agenda, it will be very difficult to address the problem at central Government level. We need political leadership; it does not matter what party or Minister that comes from, because climate change has to be a cross-governmental issue.

920. Mr Boylan: That is why I will resist the urge to take a pop at the Minister today.

921. Mr McClarty: How important is ministerial support?

922. Ms K Smyth: NILGA's work could have been promoted slightly better if there had been more support from the Department and the Minister. I do not want to make particular criticisms.

923. The Chairperson: No; I will not draw you into politics, because there is plenty of that in the Committee, and you are astute enough not to get involved. However, there are two issues that I want to ask you about. First, the declaration on climate change was mentioned; will you forward a copy of that to the Committee so that we can see it? Secondly, it is important that the Committee hears about any lack of support, lack of willingness or lack of drive at an official level, because climate change is the major issue facing mankind.

924. A lot of bodies are giving evidence to the Committee on the issue, and we have heard a lot of good and valuable information, including the evidence that we have heard today. If the small aspects of the problem are not being addressed properly, that says very little about the overall or overarching strategic view. If you have some evidence or detail about shortcomings, an unwillingness to move or a general lassitude in the Department, we would like to hear it.

925. Ms K Smyth: At an official level, I have engaged with Brendan Forde from the Department's climate change division, which is doing a really good job. It is commendable that the Department has brought forward the Northern Ireland Climate Change Impacts Partnership and has started working cross-governmentally at an official level. The difficulty is that the climate change unit is a small division in a small Department, so its impact across Government is limited, through no fault of its own. That is why I am trying to get across the importance of political leadership and a commitment from all Government Departments on the cross-cutting issue of climate change.

926. The Chairperson: Did you mention that there were problems with the Department?

927. Ms K Smyth: The problems are not so much with the Department. An example is the draft declaration on climate change, which we developed through work with the Department as a subgroup of the Northern Ireland Climate Change Impacts Partnership. We could only take that so far for two reasons. First, councils do not have the resources to implement that declaration; they will not sign up to something that they cannot implement. Secondly, the format of the declaration is similar to the declarations in Nottingham, Scotland and Wales — a joint declaration between local government and central Government — and there needs to be a signature from the chairperson of the council involved and the relevant Minister. We have been unable to take the declaration forward at that level, despite the funding not being available.

928. The Chairperson: I think that I understand what you are saying.

929. Ms K Smyth: We have sought European funding, and we have worked very closely with the Department of Environment, Heritage and Local Government in the South. We commissioned the design of a project, which, if successfully implemented by the councils that were participating, would have been rolled out across Ireland.

930. Unfortunately, however, the European Committee that is responsible for apportioning the funding decided that it was not sufficient. We will discuss with them the reasons why it was not taken forward on 3 June. Therefore, the story is not over yet. We still do not know whether we will get that funding.

931. Even if we do not get that funding, we have a project that can be taken up by local government; which has been signed up to by all the councils in Northern Ireland, and has been scoped and quantified. We know how much it will cost and exactly what it can do. It can provide benchmarking and carbon-footprinting tools with which to take the work forward properly.

932. The Chairperson: We can get details of that. I want to ask a final question in order to tie up any loose ends. How long has the finalised declaration been with the Department for signing off?

933. Ms K Smyth: Most councils got back to us in 2008. The declaration was developed during several months. It is not officially with the Department for signing off. It has been parked, for want of better terminology.

934. The Chairperson: For it to be parked, someone has to park it.

935. Ms K Smyth: We parked it because we there was no point in taking it further in the current environment.

936. The Chairperson: I want to expand on that a wee bit. If you parked it with a view to not progressing it, how can you claim that the Department does not support it fully?

937. Ms K Smyth: We desperately want to progress it. Perhaps I have not explained the situation well. We sent the declaration to the former Environment Minister in April 2008. Minister Foster was prepared to sign it. She progressed the work in support of the funding bid. That story changed. Obviously, there was a change of Minister. The work was no longer taken forward.

938. The Chairperson: Right. Thank you for that. You have been forthright. Forgive me; I just wanted to tease that out.

939. Mr Boylan: The Minister has just left the Building on his motorbike. You are OK.

940. You also mentioned local government; support from central Government; and so on. To pick up on the matter of people's inability to meet regulations; where does that lie and how can it be addressed? You keep saying that it is up to political leadership. Obviously, proper legislation is needed. If it is the case that legislation will not be in place from the start, how can that issue be addressed?

941. Ms E Campbell: In some cases, people could not afford to meet legislation; in others, they were unwilling, to be honest, because they believed that they had operated well for years, burning their waste or discharging it into waterways. They had never been taken to task about it. The financial implications of legislation were great. However, if finance is available, people are willing to put in the work, change their processes, and meet legislation. Discharge consent licences are one major requirement in legislation.

942. Ms K Smyth: There is a significant body of legislation that we can enforce at local-government level. When the necessary legislation and vires exist, we enforce them well. There is aspiration to work harder on sustainable development and climate change. However, because we do not have the legal vires to do that, often issues are parked because we must operate within a budget.

943. It would be useful to revisit the current body of environmental legislation and environmental strategy through the viewfinder of climate change in order to determine why we are doing that and how those pieces of legislation would contribute to our targets, if we have them. It is a matter of putting the targets and overarching legislation in place and making the matter a priority for the Assembly, which it has not been previously.

944. Mr Boylan: We have mentioned the waste management strategy today, are we having difficulties with that? Furthermore, is activity in that area all about meeting the targets to avoid EU infraction fines, or is a strategy properly in place? Moreover, is it achievable?

945. Ms K Smyth: I think that the Department has not been able to resource the work to the required level quickly enough to really take that strategy forward. Councils are working very hard at the moment to ensure that they meet the targets so that they do not receive infraction fines; that is the reality. There have been discussions about increasing recycling percentages and being more aspirational, but we must be aware of the financial environment that we are working in. However, we now have business plans at local-government level to take forward a major infrastructure. Therefore, a degree of realism must be brought into the whole thing.

946. The difficulty with the whole carrot and stick issue that the Committee has been talking about is that we have been concentrating on getting funding for the infrastructure. We have now obtained the capital funding to take that forward, but there is a lack of revenue funding to take forward learning and communication, or data and research.

947. Therefore, certain arms of the strategy are, perhaps, not going the way that they should. However, we are starting to work on those now to take all that forward.

(The Deputy Chairperson [Mr Boylan] in the Chair)

948. Mr Ford: There has been discussion, today and previously, on the crossover between the climate change strategy and the sustainable development strategy. You have highlighted the good work that is being carried out by Brendan Forde's climate change unit in DOE. However, you also effectively said that that unit has no clout with other Departments, as it is stuck in DOE.

949. Sustainable development has been transferred from a Department that had some understanding of the issues, to a Department — OFMDFM — that has no understanding but has some clout. Do you have any thoughts on how to solve that particular difficulty?

950. Ms K Smyth: I gave the example earlier of a cross-ministerial working group on PPS21, and we have a similar Executive working group on the reform of local Government. Although that cannot be done for every issue, these are really serious, overarching issues that will affect all other policies, and there must be political buy-in at Executive level.

951. Mr Ford: Ms Campbell, you highlighted what was clearly a very successful, but relatively expensive project. How does one transfer the lessons from that type of intensive project to the wider community, without having to replicate the same structures everywhere?

952. Ms Campbell: I have developed a project, for which I hope to attain further funding from the East Border Region and which involves circulating those lessons. We have developed a toolkit that we hope to roll out to councils. We have also developed a sort of electronic school for sustainable development. That package will involve all of the different elements, such as waste and energy management, and it will be available to local government, as a sort of greening-government school, and to the business community. We also hope to build in an accredited scheme so that one can pick up points and obtain qualifications. Furthermore, the toolkit will be available online, so that businesses can lift it and run through the program themselves, and the same would apply to councils.

953. Mr Ford: You said that you have sought funding for that project. How far advanced is that?

954. Ms Campbell: We are waiting on a response. We had had to tender for that funding, but, if we are successful, we hope to have the project up and running in the autumn of 2009.

955. Ms K Smyth: Just before we leave, the Committee should be aware that NILGA has also given evidence to a current Royal Commission on Environmental Pollution (RCEP) inquiry into climate change, and it may be useful for the Committee Clerk to contact the RCEP. I can forward contact details if necessary.

956. Evidence was given by all UK local Government associations on what they are doing on climate change. We are also working closely with the Welsh Local Government Association on pilot projects that councils there are running. We are examining those projects to ascertain whether we can take forward similar schemes in Northern Ireland at a low cost.

957. The Deputy Chairperson (Mr Boylan): Thank you very much. Keep up the good work, especially in Newry and Armagh.

958. We will now hear evidence from the Ulster Farmers' Union (UFU). Members should note that the Ulster Farmers' Union aims to serve its members by promoting and supporting a vibrant and sustainable rural economy where agriculture is secure and pivotal to its future. It has more than 12,500 members supported by 25 regional offices, and its headquarters are in Belfast. A summary of the UFU's submission to the inquiry is provided in members' packs, along with the special adviser's comments.

959. I introduce Graham Furey, who is the president of the UFU, John Best, who is the chairperson of its environment committee, James Brown, who is the deputy chairperson of that committee, and Aileen Lawson, who is the senior policy officer. I will hand over to you for 15 minutes, and then we will open up the floor for questions.

960. Mr Graham Furey (Ulster Farmers' Union): Thank you for taking time to listen to the Ulster Farmers' Union's views on climate change. We will briefly go through the document that we provided to the Committee on the facts about climate change and agriculture. We will discuss that for 10 or 15 minutes, and then we will be happy to take questions.

961. Agriculture must feed the growing population. That is the first concern in the agriculture industry. People need food, clothing and shelter before they need anything else. From our point of view, that must be kept to the forefront. Food security and food production is essential in all countries. However, we must adapt to a changing climate. We could spend all day discussing how we think the climate is changing and whether the cause of that is man made or natural. There may well be questions on that, and we are happy to discuss that if members wish.

962. Agriculture is a contributor to greenhouse gas emissions, and we will work towards reducing those. We have provided you with facts and figures relating to emissions from the

agriculture industry in Northern Ireland and the UK. Northern Ireland produces a lot of the methane emissions in the UK because it is a livestock-producing country. We produce a lot of nitrous oxide emissions but not CO₂. Unfortunately, methane and nitrous oxide gases are more toxic to the environment.

963. We have provided graphs, which show global population projections as well as the amount of food that it would take to feed those people. There is talk about the world population increasing from 6 billion to 9 billion by 2050, and, if you extrapolate the agricultural production figure, production would have to increase by 50% to feed the population in the same way as they are fed today. Of those 6 billion people, one million are starving, and that always has to be kept in the back of people's minds.

964. With regard to climate change, there are projections on water stress and lack of water in countries. That is the main obstacle to food production. Across central parts of the world, more land is going out of production because it is too dry, and there are drought conditions. That is one implication of climate change in southern Mediterranean countries. That will lead to declining land availability, and we have provided estimates of how little land will be available by 2050.

965. The world population and demand for food is increasing, but the world land bank is limited. I read recently that 1,500 hectares of land are lost to urbanisation every day in Europe. That equates to an area the size of Holland being taken out of agricultural production every four years through building and development. Houses and roads tend to be built on the better land. Houses are not normally built at the top, or up the sides, of mountains; they are usually on the lower-lying, more fertile land. Therefore, good land is being taken away from food production. There is an increased emphasis on the use of the existing land bank, and there is some debate around that. Climate change policy must not reduce our ability to produce food. That is really where we are coming from.

966. James Brown will deal with the issue of adapting to the changing climate, and John Best will then cover further areas.

967. Mr James Brown (Ulster Farmers' Union): As farmers, we have adapted to change continually, especially in the past few years, whether due to the climate or other factors. The weather is constantly changing and creating challenges for us. Over the years, we have been able to adapt to those challenges, and, therefore, we are not scared of change. However, there must be adequate backup, advice and research on any changes that take place.

968. A specific example is plant breeding. More plants that would normally have been grown in southern areas are growing further north. For example, maize is now more easily grown in Northern Ireland, and there is considerable acreage of it here. With plant breeding, such changes will continue, and that is why research is important. New crops offer us new opportunities. New technologies will have to be employed, and the issue of GM (genetically modified) crops will need to be addressed, and John Best will speak about that later.

969. Any targets for reducing emissions must be based on sound, realistic science. Any action taken must enhance the policies already in place, so that any policy that might be introduced to reduce emissions does not affect the outcomes of the Nitrates Action Plan, renewable energy projects and other similar schemes. I raise that point because, if emissions from dairy cows are considered on a per-litre basis, high-yielding cows have fewer emissions per litre, but high-yielding cows require considerably higher inputs than those in a grass-based system. Grass-based systems are also a carbon sink. That whole area needs to be looked at more closely.

970. The Nitrate Action Plan is working quite well. The amount of fertiliser used in Northern Ireland has reduced substantially, as has the amount of nitrogen. Therefore, the amount of

nitrogen dioxide that is lost into the atmosphere is also significantly lower than in the past. That is one of the positive effects of the plan.

971. Research on reducing emissions is already being done at the Agri-Food and Biosciences Institute (AFBI). That research should be looked at and enhanced in future; more analysis is needed before targets are set. AFBI is currently running projects on life-cycle analysis, particularly for milk production. For example, it analyses all the inputs to milk production in a total-confinement system, which is a high-input system, including the amount of fuel and energy required to bring the food in and to take it out, and the results can be compared with those from a grass-based system, which requires far fewer inputs.

972. One of only two facilities that measure total emissions from animals is in Hillsborough. That facility will be of particular use in setting our targets. It is important to look at what is going on; however, more work needs to be done before any targets can be set. It is important that we have targets that are specific to the conditions of the Province rather than the UK.

(The Chairperson [Mr McGlone] in the Chair)

973. Mr Best (Ulster Farmers' Union): One of our biggest concerns is that there is not a level playing field for the measurement of carbon footprints. For instance, our competitors use growth promoters that can make beef production more efficient; however, that has a carbon footprint. Genetically modified (GM) crops make a big contribution to efficient agriculture, and yet that option is denied to us. It is important that we take a new look at the science behind GM production and the benefits that it can bring to agriculture in Northern Ireland.

974. No science currently exists to support a ban on GM production. At present, there are more than 100 million hectares of GM crops in the world, and the total land mass of Ulster is one million hectares. Therefore, we must look again at the issue. Agriculture can contribute to carbon sequestration as well as carbon production. Therefore, we need a reward for agriculture's role as a carbon sink.

975. Renewable energy offers opportunities; however, at present, the market here is not conducive to small projects, because the distribution monopoly is a barrier to small producers. Northern Ireland agriculture can contribute to renewable energy through the production of crops and the utilisation of agricultural waste.

976. Climate change creates additional costs for farmers by increasing the risk of damage caused by pests and disease, as typified by the threat from bluetongue, which has moved further north in the northern hemisphere due to climate change. We will also be faced with more frequent extreme-weather events, which obviously will cost more money.

977. We have big a concern about the carbon labelling of food because it does not take into account production methods that are outside the carbon footprint. For instance, it will be quite easy for Brazil to demonstrate a lower carbon footprint than Northern Ireland in the production of beef, because no allowance is made for production standards or the fact that deforestation of the rainforest is taking place to accommodate increased beef production.

978. A considerable concern among our processors is the fact that supermarkets here are already looking at the carbon labelling of food. That has started to take place, and we need to keep up. The Northern Ireland agrifood sector is the largest employer outside the public sector in Northern Ireland. Therefore, it is important that we do not deny production here, as that will only allow for increased production of beef in Brazil in or chicken in Thailand.

979. Mr Furey: In summary, the agriculture sector in Northern Ireland needs an individual approach that takes account of where it sits. Threats and opportunities exist. Climate change, or changes in seasons, creates potential opportunities for agriculture that we do not want to see stifled. However, threats exist that need to be controlled and dealt with. Careful policy consideration is required, and the Environment Committee can play a role in that by helping to set future parameters for the agriculture sector in a changing climate situation.

980. The sector faces problems with competitiveness, carbon leakage and the export of food production. We could export our food production; however, that would only transfer the problem to other parts of the world. A big concern is that large industrial countries could buy carbon credits from third-world countries or fob production off on them.

981. There is a need for food security, as I have said two or three times, but new technologies should always be considered. The agriculture industry can do that in a number of areas, including the use of anaerobic digestion, which can overcome a number of problems. However, the use of new technology needs to be pump primed, or the payment for the electricity, heat, or whatever is generated, needs to be sorted out.

982. The Ulster Farmers' Union feels that more research is needed on reducing emissions before targets are set, and that carbon labelling should be postponed until there is more information. We feel that the retailers are using carbon labelling as a selling point and not for the right reasons. They have gone off the idea of local, fresh food, and are now looking for something that they can use in a competitive recessionary world. Carbon labelling is the bandwagon that they have now jumped on to. We need to watch very carefully to ensure that they do not glaze people's eyes over with the promise of a reduced carbon footprint. The baselines need to be set on carbon production. Those retailers would love to be able to import Brazilian beef and Thai chicken again, and they must be watched carefully.

983. The Chairperson: We will hear from the retailers later today. You said that more research is required. It would appear that there is a huge body of research already. Is there a specific area in which you would like to see more research?

984. Mr Furey: Plenty of research has been carried out worldwide, but there may be a need for local research. Some research has been done at AFBI; Dr Sinclair Mayne will have results of some of that, and James Brown knows about the research on the dairy industry and the production of gases and greenhouse gas emissions. Quite a bit of work has been done on that already, but there is a big debate about whether ploughing ground releases more or less carbon than direct-drilling or minimum-tillage systems. There are theories, but I am not sure about the facts. I am convinced that those theories do not take account of all of the facts.

985. The Chairperson: There are huge swathes of scientific opinion and research about climate change. Are you talking about research specifically on food production?

986. Mr Furey: Yes, on food production in Northern Ireland.

987. Ms Lawson (Ulster Farmers' Union): Also in regard to the greenhouse gas emissions as a result of agriculture.

988. The Chairperson: What I am trying to say is that there are probably bodies of research from other countries in relation to ploughing and things like that. I am not being obtuse, but I am trying to tie down the particulars of the specific research that you feel is necessary in Northern Ireland. Is research required in regard to farming methods that are peculiar to Northern Ireland? I am trying to elicit exactly what you mean.

989. Mr Furey: James Brown mentioned intensive milk production, whereby dairy cows are kept in 365 days a year, as opposed to a grass-based system of producing milk. More milk might be produced from an intensive system, and the carbon footprint might be no higher than that of a grass-grazing system, even though the latter produces less milk.

990. The Chairperson: Is there no worldwide research about that already?

991. Mr J Brown: There is a need for research relating to the diet that is common in Northern Ireland. In other areas of the world there may be research into grain-based diets, whereas in Northern Ireland the diet is largely grass. We do not yet have all the information on the specifics relating to our situation. This is a temperate climate, with little difference between summer and winter temperatures, whereas there are large differences elsewhere in Europe.

992. The Chairperson: Has your sister organisation in England carried out any such research? Surely the issue has arisen there as well?

993. Mr J Brown: Some work has been done on inputs per litre, but that has only been taken to the first stage. At AFBI in Hillsborough, Dr Vanessa Woods is taking that research to the second stage, which will involve considering the impact of the inputs. As I understand it, the Department for Environment, Food and Rural Affairs (DEFRA), across the water, has not taken such work any further than a dilution basis per litre. That would not give us the right answer for the situation in Northern Ireland.

994. The Chairperson: It might be useful if the Committee were to visit AFBI or to hear from it. I know little or nothing about the issue; I certainly do not purport to be a scientist or an expert in the field. If members were agreed, we could pursue that. Thank you.

995. Mr Beggs: Thank you for the presentation. You spoke about the risk of exporting food production and the obvious conflict of food security that derives from that. Recently, there have been high prices locally as a result of droughts in Australia that have affected its lamb and dairy production. Yesterday, I heard that the dairy sector in California is being told that it is not getting water for its cows because, due to a shortage, the water is going to humans. Are you aware of any changes in weather patterns in other parts of the world that could impact significantly on agriculture here?

996. Mr Furey: Three or four years ago, there was no problem with food security. There were not necessarily grain mountains, but there was probably overproduction on most products. Two or three years of bad drought around the world have caused food surpluses to reduce. There are numerous examples. Australia, for example, has had five or six very bad years; last year was its first half-decent year for five or six years. We know people and have family members out there who are dealing with that.

997. Argentina is an interesting case, because it has gone from being a net exporter to a net importer of beef. Some might say that that is because Argentina has swung from beef production to grain production, and there is some truth to that. That has also happened Brazil. No one has a handle on how many cattle there are in Brazil; there may be anything between 150 million to 200 million cattle, but they cannot count them.

998. The Chairperson: I would not want that task.

999. Mr Furey: There are problems with climate change throughout the world. Every week, one only has to read statistics that are gathered weekly about whether the climate is good, bad or indifferent to compare it with previous years. Last year was probably the first year for a long time in which there were no major disasters in the world. In a way, the biggest disaster probably

occurred in Northern Ireland. Most countries had a better harvest last year from the point of view of grain production.

1000. Grass production in New Zealand goes up and down now. It was once seen as having a temperate climate that could produce a lot of grass, but it has had a lot of difficult dry years. The problem to consider is whether to collect water and to irrigate, which would increase the carbon footprint, as that would require machines.

1001. Mr Beggs: You mentioned the new opportunities from renewable-energy crops. If I understood you correctly, you said that there was a possible distribution monopoly with that and that there were difficulties in establishing something that could be further developed. Can you outline what might be done to open up opportunities in that area?

1002. Mr Best: There is much interest in renewable energy. One of the obstacles is the fact that, although Northern Ireland Electricity (NIE) pays lip service to renewable energy, it does not facilitate the connection of a small supplier into the grid. It is fairly simple. There is not much need for subsidy. Double renewable obligations certificates (ROCs) make on-farm renewable energy production potentially profitable, but a buy-in from NIE is needed to take a small supplier into the grid. NIE's problem is that fluctuations in voltage and so on must be managed. There is an opportunity and an interest.

1003. The Chairperson: Are there examples of NIE having refused projects?

1004. Mr Best: No, it has not directly refused. I know that it does not make connection easy.

1005. Mr Beggs: I appreciate that, on the continent, local production of electricity is encouraged much more. Biomass is carbon neutral. Could more be done in that area to create a possible option for farmers to consider?

1006. Mr Best: Using willow as a crop rather than wheat offers opportunities in both bioremediation and energy production. However, the use of willow is not viable without bioremediation or an attached gate fee.

1007. Mr Beggs: What is bioremediation?

1008. Mr Best: Bioremediation is cleaning up dirty water and removing sewage and sludge, and willow chip is very good for that. Willow is also used as a major method of carbon sequestration, because it grows a mass of biomass; that is, willow trees produce a lot of leaf during the summer months. Therefore, it uses up a great deal of CO₂. Willow use has its place, but it needs to be supported by a gate fee. The price of oil has come down, so the real value of willow chip has come down, too.

1009. Mr Beggs: Are any figures available that show the economic level at which the use of willow becomes a viable option? At what price of oil does willow chip become a realistic product to use?

1010. Mr Best: Willow looked a very attractive prospect when the price of oil reached \$140 a barrel. One ton of willow chip is worth 500 litres of oil. I have some willow chip in, which was great when oil cost \$140 a barrel, but it is a disaster now.

1011. Mr Beggs: Therefore, depending on oil prices, willow chip could be the future?

1012. Mr Best: I am confident that there is a place for willow chip.

1013. Mr Furey: In a meeting with Department of Enterprise, Trade and Investment (DETI) officials yesterday, we talked hypothetically about a fifth power station's being sited in Northern Ireland. A 300 MW power station that was powered solely by biomass would require 250,000 hectares of land for biomass production, which is 25% of the size of Northern Ireland. That is not a runner, because more carbon would be blown on transportation, and so on.

1014. However, small sites in local areas are possible. We consider Government and local-council buildings to be a market for that, but there must be a profit margin. A farmer needs encouragement to develop it.

1015. Ms Lawson: The other technique is anaerobic digestion, which has huge potential for reducing methane emissions, and also for producing renewable energy and improving water quality. The amount of capital that is required to implement those systems is so large that it is not an attractive option. However, if electricity were better priced and the market was more open, anaerobic digestion could be an option that would assist a number of environmental issues, including the reduction of emissions.

1016. Mr Boylan: Thank you very much for your presentation. I am glad that you raised the valid point about the single electricity market, because that may be examined after the Committee's inquiry. There is no point in our considering low-carbon fuel if we are unable to buy into the grid or if complications arise.

1017. Roy Beggs touched on the opportunities for low-carbon fuel. Are you looking at how Ireland and other European countries are trying to adapt to climate change through diversification, for example? Some people think that diversification represents a move away from farming and into light engineering, but that is not the case. Diversification could merely be farmers using different crops.

1018. Graham Furey mentioned land use. I appreciate that planning policies are being dealt with at present, and that there is an attempt to move everyone out of the countryside and back into urban areas. You said that the 15% figure is being used in Europe, and everyone is entitled to their opinion on the issue. How should we use our land? Should that be done through policy alone? Are there any economic benefits? I know that you have submitted responses on certain policies, but have you put any thought into the questions that I have posed? A figure of 15% indicates that land use will be a major issue for us.

1019. Mr Furey: I do not know what the figure is in percentage terms, but it represents 1,500 hectares a day, which is an area the size of Holland every four years. I have views on land use, but those are not necessarily the union's views.

1020. Mr Boylan: A valid point is being raised.

1021. Ms Lawson: After the Committee's inquiry, where we may end up in our approach to tackling climate change is at the point at which some other European countries are already.

1022. Therefore, we can learn from what those countries are doing today. In the short term, however, it is important that we continue to adapt to the climate by plant breeding and by undertaking more production-based research so that we can learn from other countries. We should also continue the research that is done here and ensure that our farmers continue to produce food. That will become more and more of an issue as our population grows. We cannot lose the ability to produce food, so we must keep up with production.

1023. Mr J Brown: We do not have to tell the Committee how important the agricultural sector is to the Northern Ireland economy. It has been the biggest employer outside Government.

1024. If the Agri-Food and Biosciences Institute (AFBI) is undertaking research, it will source similar research that is being done throughout the world. If the Committee were to visit AFBI, it would be able to brief the Committee well on what is being done at present and how it has specifically adapted to look at the Northern Ireland situation. That is where we need to set targets that are achievable for Northern Ireland.

1025. Mr Furey: Several countries in Europe are taking action, but the UK has potentially taken the lead. It is the first country that has included budgetary constraints in its Budget for climate change and carbon usage. As I said earlier, some large industrial countries try to fob off the issue by trying to buy carbon credits from other countries. That worries us, because that concerns Third World countries, which Brazil is still considered to be. Farmers from there who are on a low-carbon output could get a bonus for something that we are also doing here.

1026. The Chairperson: You outlined the potential threats, but what opportunities do you foresee?

1027. Mr Furey: There are massive opportunities. If we were sitting here talking purely as agricultural people, I would say to bring on climate change for Northern Ireland. If winters here were 2°C warmer, our livestock would be out longer. If it were wetter, we would hope that we could control the water. That is an environmental problem, so we may have to examine flood plains, or whatever, but we can cope with that. As I said on the radio yesterday morning, I would rather cope with too much water than not enough.

1028. Mr Boylan: Graham, be careful: you could have giraffes running around your countryside.

1029. Mr Furey: We would need tall trees for that.

1030. Mr Boylan: You said that agriculture plays a major role in the economy, and I totally agree. Graham, can you answer my question about land use? In time, how do you think that land use will affect climate change? How should that be addressed?

1031. Mr Furey: We are land limited, so our first concern is food security — we have to produce food, which is produced from grade 1, 2 and 3 land. There are also uplands and hill areas, which provide opportunities to work on agriculture and environmental issues in the same area. In addition, there are moorlands and forests, although forests only grow to a certain level. Depending on the country, there are treelines, above which timber will not grow. Those are the three bases on which we need to focus.

1032. If more forests are to be planted to create more carbon sinks, they should not be put on grade 1 land. Similarly, wheat should not be produced from grade 4 land that is halfway up a mountain. That is not that hard to work out. The worry is that good-quality land is being used for building. When roads are built, there are debates about the type of land through which they will run. Mostly, they will be built on the type of land on which it is easiest to build, which tends to be good land as opposed to bog or marshland. That is when we encounter problems with environmentalists. That is fair enough: everybody has the right to make an argument, but a debate is ongoing. There is land for food or fuel, and there is land for building roads on, and so on.

1033. Mr Boylan: It is not hard to work out that we have a problem with that. One just has to mention roads and the major planning phases are rolled over.

1034. Mr Furey: We need to produce more from the available land that we have, and that brings us back to GM crops, the introduction of which would help to reduce carbon emissions. If we were allowed to grow GM crops, fewer pesticides and, potentially, less fertiliser would be

required. The whole subject must be considered. I am not saying that we should jump headlong into it, but, if growing GM crops has the potential to reduce Europe's carbon footprint, consumers must be educated about them. At the end of the day, we will go with what consumers demand, but they must be practical and realise that we cannot do everything else that is required of us and still produce quality, extra-large food yields unless we have the equipment with which to do so. Regardless of whether that equipment is pesticides, fertilisers or GM crops, such decisions must be made.

1035. Mr Gallagher: Thank you for your submission. On the subject of ongoing climate change, earlier, the Chartered Institute of Environmental Health told us of their worries for the future about alarming increases in the incidence of food poisoning as a result of higher temperatures. That may not sit happily with our reputation for producing quality food, which is very much your interest.

1036. You mentioned the ongoing experiment to determine whether dairy farmers should keep their stock indoors for 365 days a year or continue in the traditional way. Has anybody considered the adverse implications that doing the former would have on animal and plant life? In Northern Ireland, we no longer have corncrakes. Despite what scientists have told us about reintroducing them, they are not here, and we all remember when they were. Those birds disappeared largely as a result of silage cutting, which impacted on their habitat during the season in which they came here. Surely there would be serious implications if you were to move to a farming system based on keeping livestock indoors for 365 days a year. Who is considering that matter on behalf of the Ulster Farmers' Union?

1037. You made another serious point about low-carbon food labelling. This island has a reputation for producing quality food, which is the natural business of farmers. You said that labelling food as quality and low-carbon would be at cross purposes. I would hope that achieving low-carbon labelling in the way in which you described would not jeopardise Northern Ireland's reputation. Whose business is it to get to grips with that matter so that our reputation is not damaged?

1038. Mr J Brown: If one solely considers carbon emissions per litre, one must encourage the highest level of production per cow. The higher the litreage per cow, the more that that cow's ability to graze grass decreases, because she needs a higher level of dry-matter intake. One ends up needing more maize and whole crops — a more cereal-based diet for the cow. In a country that comprises 96% grassland, traditional farming methods would have to change. One would move more towards a total diet in a dairy animal. That would impact on the consumer's view of friendly agriculture, with cattle grazing in the field. People have just tried to get hens out of cages, and that proposal would put cows back in houses, which would not be particularly welcomed.

1039. AFBI, under Dr Vanessa Woods at Hillsborough, is looking at the situation in Northern Ireland. An increasing trend is to move towards a confined system, under which fossil fuel carries all food in and all slurries out. That type of system also results in a higher use of fertiliser than a grass-based grazing system, which is more environmentally friendly. Growing forage for over winter would take more fertiliser than it takes to produce quality grass for the cows to graze. It is important that there are Northern Ireland figures to suit the Northern Ireland situation. The work at Hillsborough tries to look at the situation and to take it one step further by looking at the manufacturing of machinery, and so on, to keep cows indoors.

1040. Mr Furey: Keeping cattle outside for 365 days is the extreme scenario, as opposed to keeping cattle out to graze for 10 months of the year. That must be considered in research. If cattle were housed intensively, their gases could be caught or their slurries could be put through an anaerobic digester, and it would not have to be taken out to the land at all. On the basis of

those considerations, that sort of research can be, and is being, done at Hillsborough. The extremes must be considered to decide where in the middle we should fit.

1041. Mr Best: You have highlighted one of our big issues. It is quite easy to demonstrate how keeping cattle indoors for 365 days a year and milking them intensively will have a lower carbon footprint than keeping cattle outside. However, that does not take any account of other potential impacts; for example, the impact on the corncrake, the welfare of cows, and so on. It is a big concern of ours that intensively produced milk will have a lesser carbon footprint than an extensively produced system in Northern Ireland. That applies to milk, beef, sheep, cereals and all other aspects of farming, and we must be aware of that.

1042. Mr Gallagher: How do we try to sort that out?

1043. Mr Best: We cannot allow the process to continue as it is doing, with the carbon footprint as the one and only indicator of how food is rated. That must be considered, but issues such as production standards, welfare standards and child labour must also form part of the equation.

1044. Mr Ross: You talk about the importance of the agriculture industry to the Northern Ireland economy, and we all recognise that. The inquiry must consider not only the impact of climate change but the impact of climate-change policy on certain industries in Northern Ireland. Climate change is currently a trendy subject: the mainstream media is latching on to it; many companies are using it for marketing purposes; young people are taught about it all the time; and it is always mentioned on television programmes. So-called experts from the Intergovernmental Panel on Climate Change (IPCC), such as Dr Rajendra Pachauri, have told people not to eat meat. What sort of impact would that have on the industry, particularly in Northern Ireland?

1045. Mr Furey: If that were taken up and the whole world were to decide to stop eating meat, it would have a fairly devastating impact, but it would also have a devastating impact on Brazil and everywhere else. It depends on whether the issue is considered in the round. Looking into the future, we could not feed ourselves by producing only grain. That would result in food shortages.

1046. Industrialised countries will not go down that route until they are forced to do so, whenever that may be. We do not want to have a Government policy that says that we must reduce the amount of meat and milk that we produce by a certain level in order to reduce carbon emissions. There must be other ways around that. One region of the world cannot be curtailed from producing meat when other countries are not.

1047. Ms Lawson: One must always remember that the demand for food is increasing and will continue to increase. If such policies were introduced, the right of people in other countries to eat meat would be denied. The demand for red meat is increasing in parts of the world where countries are becoming more developed. The problem will simply move elsewhere. If production is stopped here, it will simply start elsewhere, but the overall impact on the global environment will not change.

1048. Mr Ross: That is an important point, because many so-called experts make policy suggestions that can have severe and devastating impacts. That is an issue that we should look at in our inquiry.

1049. The Chairperson asked you a question about the research that is being conducted into farming practices. Is that research now being driven by climate-change policy and the input of farming practices on climate change, or is it still focused on what will benefit the farming sector most, irrespective of climate change?

1050. Mr J Brown: A wide range of research has been undertaken across the industry on environmental impacts, production impacts, feeding technologies and welfare standards. That is just one aspect of the environmental impact. A consideration of the environmental impact of a specific action is built into most research, such as that which was carried out in developing the nitrates directive. Fifty per cent of Northern Ireland is under countryside management, which is quite point.

1051. Mr Ross: Finally, what incentives are there for farmers to adopt so-called environmentally friendly policies?

1052. Ms Lawson: Farmers can receive payments through agrienvironment schemes to help them move away from production to some sort of environmentally friendly practice. Moreover, farmers in certain sectors can receive discounts on their climate-change levy and aspect of electricity bills if they improve their farms' energy efficiency. More and more farmers are moving towards introducing renewables energies on their farms.

1053. Farmers have been doing other basic things to save money, such as reducing fertiliser inputs and using organic manures more efficiently. Those actions reduce greenhouse-gas emissions, improve water quality and help Northern Ireland to move towards its targets.

1054. Mr Furey: The nitrates directive is a classic example of how the industry worked with scientists and policymakers to develop a strategy that we could cope with in Northern Ireland. There has been a good response to the nitrates directive, because it benefited not just the environment and farmers but everyone. We reduced fertiliser usage by using organic manures. Although, at times, it is a difficult piece of legislation with which to deal, it has brought all-round benefits.

1055. We feel that R&D over the past number of years has been neglected on a wide range of agricultural issues. It was put on the back burner, because enough food was being produced in the world and there were no problems. However, we feel that extra R&D is now needed in agriculture production. As James Brown said rightly, we need to look at the impacts of what is now called "evidence and innovation" — as opposed to research and development — on the environment. Much more work remains to be done on evidence and innovation for production, the environment and other issues.

1056. Mr Ford: I have a couple of questions. You spoke about carbon sequestration as being an option. What opportunities are there for that in traditional agriculture as opposed to alternative-energy crops? Are there opportunities for that kind of remediation?

1057. When you talked about considering new technologies, Graham, you included anaerobic digesters. Given that those were operating in places such as Portglenone 20 years ago, is the issue really that the necessary funding to get people moving in that direction is unavailable, or is the technology still a problem?

1058. Mr Furey: I will take the final point first. Anaerobic-digester technology is proven all over the world. I meant to say, however, that it is new to Northern Ireland. The initial costs are high, but if a reasonable price were set for the produce, there would be no need for a grant-based stimulus. John Best mentioned the renewable obligation certificates (ROCs), but we also feel that the banks may become involved if they thought that there would be a payback within five years. At present, there is no five-year payback; it is more like 25 or 30 years. In fact, some people say that it will be a 400-year payback, because the return is so low. John Best has more information on that. If the price for what is produced is profitable and the operator can pay off what he owes, the initial start-up cost becomes less relevant — not irrelevant.

1059. Ms Lawson: I will deal with the issue of carbon sinks. Discussions are ongoing about trading mechanisms, whereby producers can offset their emissions. Under existing policy, industrialised countries can do that by purchasing credits from less-developed nations for forestry and other ventures. There may be an opportunity, where trees or grass are being grown, for example, to reward a farmer for offsetting emissions.

1060. Mr Ford: I was thinking specifically about grassland crops. Where is the evidence for what the agriculture industry is currently achieving?

1061. Mr Best: That has not been measured yet. Any growing crop takes in CO₂, so it can be regarded as a carbon sink, be it wheat, grass, or so on.

1062. Mr Ford: It is not a carbon sink if it is eaten by a cow that converts some of it back into CO₂. It is a carbon sink if it is sequestered into the soil. That is the point that I am trying to get at.

1063. Mr Best: Yes, but that balance needs to be measured, and everyone needs to be singing from the same hymn sheet. We need results that apply to Northern Ireland. New Zealand has its own results; we need our own, which must be robustly backed up by science. That is the direction in which the research must go. The facilities and the equipment are available.

1064. Anaerobic digestion has been around for centuries. It is only recently, however, that energy pressures and environmental pressures have moved the technologies forward. Portglenone was a flagship for that technology, but the technology has moved forward considerably in the past few years because of the pressures on the environment and the need to develop renewable energy sources. There are now many opportunities to develop anaerobic digestion.

1065. The Chairperson: Thank you very much for your time. Your contribution has probably raised more questions than answers, but we will try to elicit a few of those along the way. It is a big topic, but it is very interesting.

1066. Mr Furey: If you require any further information, please get in touch with us.

1067. The Chairperson: Thank you again. I intend to conclude the next evidence session at 1.50 pm, after which we will break for lunch.

1068. The next set of witnesses is from the Northern Ireland Climate Change Impacts Partnership (NICCIP).

1069. The NICCIP was established to widen the understanding and knowledge of the impacts of climate change within Northern Ireland and the adaptation actions necessary to deal with it. It promotes, through partnership, the ownership across relevant social, economic and environmental sectors of issues relating to climate-change adaptation.

1070. I welcome Mr Raymond Smyth from the Northern Ireland Chief Environmental Health Officers' Group, Ms Patricia Mackey from Northern Ireland Environment Link and Ms Emer Murnaghan from the Institution of Civil Engineers Northern Ireland. You have been very patient; thank you for coming along to give evidence.

You have already ascertained the format; you have 10 minutes to provide an overview, after which members will ask questions.

1071. Mr Raymond Smyth (Northern Ireland Climate Change Impacts Partnership): Thank you for the introduction and for the opportunity to speak to the Committee. Unfortunately, because of the slippage in today's schedule, our chairman, Douglas McIlDoon, has had to leave. However, we will press on regardless and endeavour to answer members' questions.

1072. The Chairperson: I am sure that you will be more than capable.

1073. Mr R Smyth: Without repeating other groups' comments, I will explain the unique role of the Northern Ireland Climate Change Impacts Partnership.

1074. Early in 2007, a report entitled 'Preparing for a Changing Climate in Northern Ireland', which was commissioned by the Department of the Environment and undertaken by the Scotland and Northern Ireland Forum for Environmental Research (SNIFFER), was published. It focused specifically on the impacts on the public sector and the need for adaptation, and made several recommendations for various areas, particularly the natural environment, the built environment, economic infrastructure and social well-being. It recognised that, as impacts and actions of one sector or organisation could significantly affect others, it was imperative that actions were developed in partnership on a regional basis.

1075. The report recommended the establishment of a Northern Ireland climate change partnership to enable sectors to consider climate change matters, and, thereafter, the Northern Ireland Climate Change Impacts Partnership was established. NICCIP aims to widen understanding and knowledge of the impacts of climate change in Northern Ireland and highlight the necessary adaptation actions. NICCIP's main focus is on adaptation and building adaptive capacity in partners and others. However, we appreciate that adaptation and mitigation are complementary and that it is not always possible, or even meaningful, to consider either concept in isolation.

1076. The partnership has a wide base and has representatives from central and local government, the business community, the voluntary sector, and professional organisations. All member organisations and objectives of the group are listed in our earlier submission. Furthermore, the partnership benefits from the participation and support of a representative from the United Kingdom Climate Impacts Programme, which was established to help key decision-makers plan their response to climate change.

1077. Although the partnership was formed relatively recently, it has been active in several areas. For example, NICCIP commissioned a survey of attitudes to climate change among the public, politicians and other key decision-makers. The Committee will be interested to know that the survey discovered that MLAs underestimated the public's willingness to make lifestyle changes to reduce the impact of climate change. In fact, 89% of the public indicated a willingness to make lifestyle changes, provided that Government showed leadership and took action.

1078. The partnership has arranged sessions through which partners can understand the tools that are available from the United Kingdom Climate Impacts Programme. Those will help organisations to develop their own adaptation responses. NICCIP has a programme to promote the climate change declaration for district councils, which Karen Smyth from NILGA mentioned earlier, and to organise training events for stakeholders on the release of the new UK climate projections for 2009, which are expected to be issued before the end of the year.

1079. Ms Patricia Mackey (Northern Ireland Climate Change Impacts Partnership): Our way of life in Northern Ireland is under threat from the changing climate. Northern Ireland will have to adapt to overall warming, wetter winters, rising sea levels and more intense storms. In order to deal with the impacts of climate change in Northern Ireland, we require a much better

understanding of why we are vulnerable to those impacts. We must identify areas that are sensitive to current and projected climate conditions. Moreover, we must identify the present adaptive capacity of communities, infrastructure, economic activities and the ecosystems that support us.

1080. That must be done across all sectors and all 11 Departments.

1081. Adapting to climate change will be a continuous process, and continual risk assessment will be key. In line with assessing our physical vulnerabilities, the Executive must climate-proof existing legislation and policies across all Departments and ministerial responsibilities. Adaptation and mitigation need to be mainstreamed into existing policy frameworks. That will include policies that deal with infrastructure such as energy, transport and flood defences, but also policies on agriculture, health, education, economic development, investment and so on.

1082. For Northern Ireland to stand any chance of being able to adapt to the inevitable impacts of climate change, we have to put in place legislation that will allow climate change to be treated as a cross-cutting theme. It will have to be mandatory for every Department to report on its adaptation measures. We must review how cross-cutting initiatives can work in the Northern Ireland context. Each of the 11 separate Departments must have a role to play and a means for input. Policies and budgets that are needed from one Department may affect another Department. We must review how all of that can happen in a given set-up.

1083. Having sat in the public gallery, I realise that sustainable development has already been mentioned several times today, but I am going to mention it again. Sustainability is a cross-cutting theme in the Programme for Government, but we do not feel that that it has been dealt with at all successfully to date. It has not been handled as it should have been, and we need to look at the reasons for that. Although there is a statutory duty, no mandates are in place for any Department's failure to input — there is no real power behind the legislation. As good as the strategy may have been, the entire initiative has no teeth.

1084. We cannot afford the same situation to arise with climate change, because the issue is far too important. We need legislation that will make all public bodies more accountable and oblige them to report against a Northern Ireland Executive mandatory climate change programme. The UK Climate Change Act 2008 stipulates that Northern Ireland should produce its own adaptation strategy. We have to ensure that we have the adequate legislation in place for all our Departments to actively contribute.

1085. Do we need to review how Departments can be held to account for failing to contribute or for lacking an understanding of how they fit in with the agenda? Do we need to review the capacity for dealing with climate change in each of the different Departments? Those are questions that need to be answered. Along the lines of the cross-cutting nature of climate change, we need to look at how energy, climate change and sustainable development all link together. Energy and climate change cannot be looked at as two completely separate issues, and having both of those issues dealt with by the same Department would help to better integrate adaptation and mitigation for climate change.

1086. We need to put in place a Northern Ireland framework for how we will manage adaptation to climate change. We should be able to repeatedly assess where our vulnerability lies and climate-proof existing and emerging policies across all Departments. We also have to put in place the legislation that is required to ensure that all Departments actively contribute and work together across the various silos in a Northern Ireland Executive climate change adaptation programme.

1087. Ms Emer Murnaghan (Northern Ireland Climate Change Impacts Partnership): Good afternoon. I represent the Institution of Civil Engineers on the NICCIP committee. We only have to compare life in Northern Ireland to life in developing countries to appreciate that the more civilised a society becomes, the more we depend on the infrastructure of water, waste water, energy, transport, waste, housing, health and education. In a sense, infrastructure becomes synonymous with standard of living.

1088. It follows that the ongoing maintenance and replacement of such infrastructure is crucial. That infrastructure is an asset to modern society, and we fundamentally depend on it for our well-being, economic growth and ability to attract inward investment.

1089. However, climate change probably presents the greatest risk to our critical infrastructure, and therefore it is the biggest challenge that we currently face on a local, national and global level.

1090. As Raymond Smyth stated, NICCIP focuses on adaptation. So, how can we adapt? First, we should look at existing infrastructure. Patricia Mackey spoke about vulnerabilities; we need to identify critical infrastructure across the sectors. For example, in the energy sector, we must identify where power stations are located and consider how vulnerable the distribution networks are. In the water sector, we must consider how vulnerable water and waste-water treatment works are, given the fact that they are all located in low-lying areas for the purposes of abstraction and discharge. In the transport sector, we must identify the main strategic routes. A few days ago, traffic in the city was almost brought to a standstill because of heavy showers. I am not saying that that had anything to do with climate change; however, if it is an indication of things to come, we cannot allow that to continue to happen.

1091. We suggest that a national database should be set up to help manage and defend our critical infrastructure. The database will be used to assess assets for resilience to the effects of climate change, particularly flooding, which is likely to be the biggest challenge to face us in Northern Ireland. Once that information is assessed, the work required will need to be prioritised.

1092. We can learn from experiences elsewhere. For example, in 2007, power stations in the UK came under threat from flooding, which would have had a knock-on effect on power supplies. We need to look at new infrastructure. What should we be doing to adapt infrastructure, and is that happening? We must ensure that all new infrastructure is designed to cope with climate change. Doing nothing is not an option. The Stern Review highlighted that fact. To do nothing will only cost us more in the long term. That point has been reiterated several times today.

1093. The reviews that we are calling for will take time; however, the climate is changing now, and it will not wait for Northern Ireland to catch up. We must simultaneously develop and communicate our emergency response to deal with events that are happening and will happen. Consider the way we react — or do not react — when there is a crisis: we run around like headless chickens. However, we are not the only ones; people in America and the UK have reacted in the same way. We need to tackle climate change by developing a response.

1094. We must produce an integrated flood-risk management plan. If that is our challenge, we must face it. We must engage all the statutory authorities that have responsibilities for certain areas of water management — the Rivers Agency, Roads Service and Northern Ireland Water — the blue-light emergency services, and the councils, through the local resilience forum, because there is no joined-up thinking at present. The identification and prioritisation of the critical infrastructure that must be protected will be one of the outputs of the earlier review. Responsibility for protecting the critical infrastructure can then be allocated on a regional or local basis.

1095. The public must also buy into that. They must be advised and informed of what needs to happen. We need to communicate that message. There must be lots of joined-up thinking. People need to be told whether their properties are at risk of flooding because they are situated on a flood plain, and they need to know what to do in order to flood-proof their properties and assets. We must develop an early-warning system, communicate that emergency plan and practise it. There is no point having an emergency response if we do not know whether it will be effective.

1096. We need Government and this Committee to champion cross-party consensus on climate change. We need strong leadership on this non-partisan issue. Climate change affects everybody, and we need you to agree that Government must carry the financial responsibility for this public-interest issue. We need you to commence reviews of critical infrastructure to promote sustainable development, including adapting to climate change.

1097. We need the Committee to give guidance on standards. The current design standards and specifications also need to be checked to ensure that they are climate-proofed; that is a big task in itself, but the climate projections that both Patricia and Raymond mentioned should help with that exercise. Hopefully, they will be published in the summer.

1098. We need to agree the approach to fast-tracking the planning and statutory consents for critical infrastructure projects, because those must be delivered if we are to meet any of the time frames. We want to make sure that there is joined-up thinking across Government. Policies must be supportive, as Patricia has highlighted, and legislation should reflect that.

1099. We firmly believe that climate change, while setting many challenges, opens up many opportunities, particularly in the area of energy. Douglas McIlldoon was going to concentrate on energy, but I can see that you are looking at the clock, Chairman.

1100. The Chairperson: I am conscious of the time. You will have heard the representatives of the Chartered Institute of Environmental Health referring to a draft flood and water-management Bill. How does that square with the integrated floods-risk management plan that you have mentioned?

1101. Ms Murnaghan: That is in the UK; in Wales.

1102. The Chairperson: If that draft flood and water-management Bill were transposed here, how would that square with the integrated floods-risk management plan? Is that a part of it?

1103. Ms Murnaghan: I do not know the details of that.

1104. The Chairperson: That is OK.

1105. Mr Boylan: Thank you very much for your presentation. You spoke a lot about policy, and one of the earlier presentations referred to a ministerial champion. We have also spoken about the Minister taking the lead, and an intergovernmental group being set up to address the issue of resources, and all other related issues. There is also an issue concerning the time frame involved in formulating policies. What is your view on that? How do you think we could address it?

1106. You also spoke about ring-fenced funding, and that that should come from public funding and the Executive. If that is the case, how then do we drive competition? I was thinking about what was said earlier about the single electricity market. If we are to tackle the issue of renewables, we must consider how they will get into the market. Obviously competition will lead

to better prices. You also mentioned the green new deal. What proposals have you in mind to address that issue?

1107. The Chairperson: If at all possible, I would like one person to respond on behalf of the group.

1108. Ms Mackey: Because climate change is such a cross-cutting issue, it is a factor in every Government Department. There is a need for some method through which each of those Departments can be held accountable. I do not know whether the most efficient way of doing that is to have one ministerial champion or a cross-party group with representation at a senior level from each of those Departments. Obviously, the ongoing review of public administration, which is scheduled to consider the make-up of the central Government Departments, may be an opportune moment to consider the way in which we deal with climate change and sustainable development, and all of those other issues that are cross-cutting, and on which all of the Departments need to work together.

1109. Mr Boylan: To follow on from that, you used the terminology "fast-tracking". Should we not be looking for proper implementation of policy, as opposed to fast-tracking the issue? If the policy is correct, and is inclusive at the start, would that not defeat the purpose?

1110. Ms Murnaghan: Yes, if we agreed what the regional development and spatial planning should be.

1111. Mr R Smyth: I think that it is important that we start developing policy, but it is also important that we get it right. Climate change will not be solved overnight.

1112. Mr Boylan: I agree.

1113. Ms Murnaghan: Going back to your question, I believe that Government must carry the financial responsibility. I am not suggesting that it comes up with all of the funding, but if there is a stable, cross-party approach to this matter, we will be able to attract private investment in the form of PFI or PPP agreements. However, we should not waste time debating who is going to pay, because asset owners will have no appetite to do it unless they are forced to, and consumers cannot pay.

1114. Mr Beggs: You have indicated that we may need different standards here as a result of our land border with the Republic of Ireland. Obviously, if their policies were significantly different from ours, we may not achieve our objectives. What practical things should be done to deal with that issue?

1115. Mr R Smyth: That obviously needs to be considered. In recent years, fuel prices have fluctuated on either side of the border and there has been a consequential movement of consumers in search of the best prices. That is the sort of thing that we should avoid.

1116. It is important for us to make contact with our counterparts in the Republic of Ireland and reach some form of agreement with them on the issues. It is very complex area, but entering into discussions with them is a very important first step.

1117. Ms Murnaghan: Climate change is not going to finish at the border.

1118. You stated earlier that Paddy Purcell from the Irish Academy of Engineering had suggested submitting its report to the Committee. Several people from Northern Ireland, including representatives from Northern Ireland Electricity, the energy market and Northern

Ireland Water had input into that report, and I would reiterate that it is worth the Committee's consideration. Furthermore, the Institution of Civil Engineers (ICE) is just about to publish its report on defending critical infrastructure. We can learn from what other people do, and we are happy to submit that to the Committee also.

1119. The Chairperson: It would be great if you could do that.

1120. Mr Beggs: Patricia has talked about the importance of communications, getting public buy-in and showing leadership on the issue of climate change. Sending out mixed messages does not help, but is that possible with our current Environment Minister? [Laughter.]

1121. The Chairperson: Can we have one brief answer on that please? [Laughter.]

1122. Ms Mackey: In relation to sending out mixed messages, I was the person in Sustainable NI who undertook the climate change survey on behalf of the Northern Ireland Climate Change Impacts Partnership. Some of the key outputs of that survey were that people overwhelmingly agree that the climate is changing, that humans are having an impact and that humans can have a role in mitigating against climate change. People also overwhelmingly agreed that they believed that they should make lifestyle changes, but what lifestyle changes they would be willing to make is a different matter. With the number of mixed messages and conflicting information out there, it is not easy for them to get on board and decide what they need to do. We need stronger leadership and direction from our elected representatives in that area.

1123. The Chairperson: Well, from some of them perhaps. [Laughter.]

1124. Mr Ford: In your submission you refer to a "green programme of investment" across the entire economy. Have you carried out any detailed work on that, or are you depending on all of the things that your constituent organisations are doing in different places?

1125. Ms Mackey: Yes. [Laughter.]

1126. Mr Ford: I thought that we were going to get the green new deal on one piece of paper.

1127. Ms Mackey: You have mentioned the issue of building standards and retrofitting the existing housing stock to bring it up to scratch. Someone told me last week about figures that exist that deal with trying to get us out of the current economic by combating the redundancies in the building and construction sectors.

1128. Embracing things like the green new deal and bringing the existing housing stock up to scratch in Northern Ireland would be a really good way of bringing employment to the people who need it, and it would help us in tackling the recession. However, fast action is needed to get that done.

1129. Ms Murnaghan: If we do nothing, climate change will be a threat. If we do something now, there are lots of opportunities.

1130. The Chairperson: Thank you for your time. You are all welcome to join us for a light lunch. You have been very patient. The meeting will resume at 2.20 pm.

The Committee was suspended.

1131. On resuming —

1132. The Chairperson (Mr McGlone): The Committee will now hear evidence from the Royal Society for the Protection of Birds (RSPB). The RSPB aims to secure a healthy environment for birds and wildlife, thereby helping to create a better world for everyone. The charity has more than 10,000 local members and believes that acting locally is the best way in which to address local issues. The RSPB, as members know, works in partnership with people and organisations throughout Northern Ireland. It aims to influence policy and legislation by working with politicians and decision-makers.

1133. Members have received copies of the RSPB's written submission to the inquiry and the specialist adviser's comments. Today's witnesses are Dr James Robinson, the conservation manager for RSPB in Northern Ireland and Colum Delaney, the policy advocacy officer in the North.

1134. Members have copies of your submission in front of them, gentlemen, so please try to keep your overview to approximately 10 minutes. After that, members will put questions to you.

1135. Mr Colum Delaney (Royal Society for the Protection of Birds): Thank you for giving us the opportunity to be here. I hope that our submission was of use to the Committee.

1136. The Chairperson: Yes, it was.

1137. Mr Colum Delaney: We are pleased to be here to give oral evidence to the Committee. Members may be aware that the RSPB is the largest nature conservation charity in Europe and is supported by more than one million members. As the Chairperson mentioned, approximately 11,000 of those members are local and support our work here. The RSPB employs a number of scientists who are devoted to identifying the threats to wildlife posed by climate change and the best mechanisms to avoid impacts.

1138. I will start by explaining why the RSPB believes in human-induced global climate change. The UN's Intergovernmental Panel on Climate Change (IPCC) involves many thousands of scientists from across the world. The RSPB considers the work of the IPCC to provide the most authoritative opinion on the causes of climate change. The IPCC states:

"Warming of the climate system ... is unequivocal ... most of the observed increase in global temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations."

1139. Based on the IPCC's work, the RSPB considers that human-induced climate change is the greatest long-term threat to global biodiversity and will have serious effects on wildlife locally, nationally and globally. If we are to avoid dangerous climate change, rapid and deep emission cuts in developed countries, including ours, are essential. That will require a massive reduction in energy use, action to curb the growth in aviation emissions and a rapid switch from high- to low-carbon sources of energy.

1140. For many years, the RSPB has been encouraging the Assembly to introduce targets for a reduction in greenhouse-gas emissions and measures to help local wildlife to adapt to the inevitable changes that the climate will experience in the coming decades.

1141. Dr James Robinson (Royal Society for the Protection of Birds): Thank you, Colum. We would like to focus the rest of our brief time here on the threats faced by wildlife from climate change and the need to ensure that Northern Ireland helps wildlife to adapt to the effects of that change.

1142. A paper that was published in a scientific journal estimates that, even in medium-range climate-warming scenarios, approximately one third of the species studied across the globe are committed to extinction unless immediate action is taken to tackle climate change.

1143. Other research has shown that many species of frog in Costa Rica, which is suffering greatly as a consequence of climate change, have already become extinct because higher temperatures have encouraged outbreaks of disease. That is one of the first examples of climate change resulting in extinction.

1144. The RSPB has been working with collaborators from the University of Durham to attempt to predict the potential changes in the distribution of European breeding birds by the end of the twenty-first century by showing where suitable climate conditions are likely to be present. In brief, we found that the range — the areas where those birds live — could shift nearly 550 km north-east and would be 80% of the size of the current range. The actual areas where the birds could live would move north-eastwards. For some species, the potential future range does not overlap with the current range at all, so those birds would be living in different areas from where they live now.

1145. Our projected changes for some species found only in Europe, or with only small populations elsewhere, suggest that climate change is likely to increase the risk of extinction. In Northern Ireland, recent colonisation by the little egret, which was once a bird found in the Mediterranean, demonstrates that the work is accurate and that climate change is impacting already on the distribution of birds in Northern Ireland.

1146. We have also demonstrated that those species that are facing deteriorating climate conditions tend to be declining, whereas the population of those that have improving climate conditions are increasing. If birds are facing a threat from climate change, that is now having an impact on their population; therefore, birds are declining as a consequence.

1147. Many migratory birds are choosing to winter closer to their northern breeding grounds and have had no need to travel west in the recent mild winters on the continent. That change in winter movements has been put forward as a potential cause of the recent massive declines in the number of diving ducks that visit Lough Neagh. Again, we are feeling the impact already. Changes in climate can also affect wildlife indirectly by impacting on food supplies. For example, climate change is detrimentally affecting breeding seabirds such as the puffin in the North Sea, as increases in sea surface temperatures impact on plankton and ultimately reduce the availability of their favourite sand eel prey. Effectively, the distribution of plankton is changing in such a way that the fish that feed on that plankton are not occurring in the seas around some of our largest seabird colonies in the UK. Similar breeding failures for seabirds on Rathlin Island and other colonies around the North Channel may be related to the same pressure, and we are involved in research to understand that. Again, the impacts have been seen here in Northern Ireland. We take this opportunity to invite any members of the Committee for the Environment on to Rathlin Island to demonstrate some of those changes and the impact that that is having on birds right now.

1148. Warmer spring events in recent decades are causing the advancement in the timing of spring events for wildlife. Our research has shown that an increasing mismatch between the hatching of some upland birds and the peak supply of their favourite food is reducing the survival of chicks. Some birds, especially migratory birds, are not able to get back to their breeding grounds to take advantage of some of the peaks of their favourite food emergencies, such as daddy-long-legs coming out in the spring, and that is creating problems for those birds. That is a brief summary of some of the impact that we have seen already.

1149. Mr Delaney: Nature's response to climate change suggests that action is necessary to enable wildlife to adapt, so what should be done? The Executive are committed to developing an adaptation framework programme under the UK Climate Change Act 2008. We believe that adaptation measures for wildlife need to be the central elements of that programme, and we have urged the DOE to do that.

1150. Dr J Robinson: Given that the changes are occurring against a continuing background of the loss of natural habitats and fragmentation of habitats, many species will struggle to survive in Northern Ireland. They are already under pressure, and they are facing those new pressures. It will be necessary to make a wider landscape more suitable for species as they shift in response to climate change. The predictions that we have given about birds moving are some of the things that we are talking about. We must make Northern Ireland accommodating for species as they shift. That will require more than just better protection of existing hot spots, such as Natura 2000 or the network of areas of special scientific interest (ASSIs), bearing in mind that we still do not have any marine reserves, because there is no marine legislation in Northern Ireland, and, therefore, that is an issue that needs to be tackled as a matter of priority.

1151. The Northern Ireland landscape will need to become more permeable to species that are attempting to respond by adjusting their distributions to new conditions. That means that maintaining existing patches of semi-natural habitat in the landscape will be important and creating new ones will be necessary. The Ulster Farmers' Union talked earlier about the benefits of agrienvironment schemes. The Northern Ireland countryside management scheme offers an excellent mechanism to provide those patches of habitat. However, the recent decision to remove set-aside land in Northern Ireland will add to removed patches of habitat in Northern Ireland and needs to be replaced with another mandatory mechanism to support habitats for wildlife.

1152. As members will know, many of our protected areas are designated as such based on the presence of rare or threatened species and habitats. However, following climate change, those areas will no longer experience the climatic conditions to maintain those species and habitats. Many of the species and habitats for which a site was originally protected will not be able to survive there in future. However, that should not mean that we dispense with those protected areas, because such high-quality areas will become important homes to new species and habitats. If some protection of global biodiversity is to be conserved as the climate changes, those sites will remain important places in the overall network of sites. It is therefore very important that the overdue plans to declare all qualifying sites as ASSIs in Northern Ireland progress as a matter of priority.

1153. Selecting new sites that offer a diverse range of physical habitats, even if they do not host rare or threatened species currently, offers the best way to sustain a wide diversity of species. In other words, we need to take calculated decisions now if we are to maximise our ability to conserve wildlife in a changing climate. Accepting uncertainty requires a refreshed approach to where we designate ASSIs. We must, however, continue to identify and protect less common physical habitats as well. Therefore, we want business as usual but with an extra tier.

1154. To ensure that wildlife can adapt to a changing climate, we propose that the Northern Ireland Government adopt the following principles. We want to see all existing biodiversity laws, policies and strategies implemented across Northern Ireland to create resilient populations of species in healthy habitats. The area of land managed for biodiversity and other environmental benefits needs to be increased, including areas for buffering and linkage outside the protected area network, as we cannot rely on protected sites alone. Furthermore, habitat features need to be protected and created across Northern Ireland to make the land mass more permeable to biodiversity as it needs to move.

1155. We have offered some specific targets in our written response, which the Committee will have seen, and we hope that those will ensure that the Government adopt the right principles and put them into practice, in line with what Colum said are our obligations under the UK Climate Change Act 2008.

1156. Mr Delaney: We must not forget that, if humans and wildlife are to have any chance of surviving in future, we must act to reduce human-induced temperature rises. We are pleased that the UK Government have agreed that they should aim to reduce Kyoto greenhouse-gas emissions by at least 80% below 1990 levels by 2050. The RSPB campaigned to ensure that that target was adopted.

1157. The UK is also committed to reducing greenhouse-gas emissions by 42% by 2020, relative to 1990 levels, as recommended by the UK Committee on Climate Change. We need to play our part in meeting that target, and we must set legally binding targets to reduce emissions.

1158. Mr Boylan: Thank you for your presentation. Earlier, the Committee heard from representatives of the UFU, and we spoke to them about the issue of agriculture and what changes may occur. In the overall scheme of things, what impact will agriculture have on land issues, such as how habitats are affected?

1159. James, you talked about Mediterranean species of birds and areas such as Rathlin Island. I had a good day out when I visited that island, and I am interested to know whether, in reality, we have seen the impact that you described — will you please expand on that?

1160. Dr J Robinson: The issue of land use in Northern Ireland is one that must be debated in the Assembly. Food production is extremely important and is a massive part of the Northern Ireland economy, but there are other public benefits that people get from land and other areas in which land use is important. That includes such things as tackling climate change and halting the loss of biodiversity.

1161. Some of our upland areas that have been struggling over many years as a result of such things as overgrazing are extremely important carbon sinks — they trap lots of carbon because they are based on peat. Those are the sorts of issues that we all need to put into the mix. We must understand how we can use the land in Northern Ireland so that it delivers all the benefits that people here need. That is a debate that needs to be had, and one that would help us to create a truly sustainable future.

1162. We are seeing Mediterranean species of birds coming into Northern Ireland. I mentioned a bird called the little egret, which has served as an indicator that things are changing. We retrofitted that species into the models that we prepared, which I mentioned earlier, that showed how birds would move in the future, and it fits absolutely perfectly.

1163. Our models of how climate affects species are being demonstrated by species that are currently moving. Some southern Mediterranean species are starting to appear very regularly in Northern Ireland seas. We need to accommodate some of those species and help them to survive in future. However, others could become threatening to our existing types of biodiversity. It is a new science, but we need to understand what is going on. That is the purpose of some of the evidence that we have presented today.

1164. The Chairperson: What types of birds have you noticed in the waters?

1165. Dr J Robinson: In the waters of Northern Ireland, we are seeing a species called the Mediterranean shearwater, which is very aptly named. That species breeds down in the Mediterranean, but it is appearing in Northern Ireland in increasing numbers. The Mediterranean

shearwater is a globally threatened species, and it is starting to use our waters. Therefore, we have a new responsibility to deal with those sorts of species as we move forward. That is a fascinating issue that we need to monitor. We have to develop policies and flexibility in our nature and conservation work to ensure that we will be able to protect those species in future.

1166. However, there are also species of fish, and types of diseases, that have started to appear in Northern Ireland's waters that we had never seen before. We think that that is partly as a result of climate change.

1167. The Chairperson: Are the diseases that you have seen more common in places that are closer to the equator?

1168. Dr J Robinson: Yes.

1169. The Chairperson: Can you give some examples? Perhaps you can supply that detail to us.

1170. Dr J Robinson: Yes, we can certainly provide that detail.

1171. The Chairperson: That would be very useful.

1172. Mr Beggs: You indicated that there have been changes in the bird population, and you mentioned the movements in plankton and fish population on which species feed. Do you have any evidence of changes in the insect population? Bluetongue is related to midges surviving milder winters and travelling further north. There have also been issues about the bee population, although I do not know whether that is a climate-change issue. Are there any changes in the insect population that will affect the bird population and the agricultural community?

1173. Dr J Robinson: That is a very good question. There are some very good examples of butterflies moving very close with changes in climate patterns. Butterflies seem to be a very strong indicator of climate patterns. However, butterflies occur across Northern Ireland at the moment, so they will not be a threat to anything. In fact, we may see new species here, such as the holly blue. Those never came here in the past.

1174. We could certainly find some more information about the sorts of things that are happening with other invertebrates, but it would be more related to the bird research that we have been doing. As I said, the emergence of species such as daddy-long-legs is happening at a different time of the year than it was in the past. I am not sure of the impacts that that could have on agriculture, but invertebrates are changing their ecology according what is happening in the climate. We could certainly try to provide the Committee with more information about that.

1175. Mr Beggs: If we are to make adaptations to try to minimise the effects of climate change, we must acknowledge the fact that we have contributed to it in the first place. Otherwise, people will believe that they cannot change the situation and ask why they should do anything. What information have you based your view on that makes the RSPB so certain that man has contributed to climate change?

1176. Dr J Robinson: To be quite honest, the RSPB does not employ climate scientists: we are a nature-conservation organisation, and we deal specifically with changes in wildlife. That is where our expertise is. However, we base all our policies on the best available science. We truly believe that the IPCC provides the best possible scientific evidence, which shows that the current levels of climate change are human-induced. We are content with that view. It is a view that is

supported by many thousands of scientists. We know that there are sceptics out there, but we are not convinced by their arguments. We base our decisions on what the IPCC says.

1177. The Chairperson: Does any other member have anything further to ask? James and Colum, thank you very much for your time. The session has been very informative. Will you send that other detail to the Committee?

1178. Dr J Robinson: Yes, absolutely.

1179. The Chairperson: The next item of evidence is from the Northern Ireland Independent Retail Trade Association (NIRTA), which is the representative body for the independent retail sector in Northern Ireland. The association represents the interests of 1,000 independent retail members throughout the North, and its collective membership employs 20,000 staff and encompasses an annual turnover of more than £1 billion for the Northern Ireland economy. Its member stores are, in general, owned and managed by local families rather than by large multinational companies with shareholders.

1180. I welcome Glynn Roberts, chief executive of NIRTA, and Paul Stewart, managing director of JC Stewart in Magherafelt. It is good to see you again. You have approximately 10 minutes to provide an overview, after which members will ask questions.

1181. Mr Glynn Roberts (Northern Ireland Independent Retail Trade Association): We will split the presentation into two parts. I will discuss the independent retail sector's overall commitment to addressing climate change, after which Paul will outline the role that he and his business plays. I want to acknowledge Donna McGuinness, who is a PhD student on an internship with NIRTA at the minute, for her help and support in producing the written submission.

1182. As you mentioned, we have more than 1,000 members in Northern Ireland, who employ approximately 20,000 staff and create a collective turnover of more than £2 billion for the local economy. Our member stores include grocery stores, wholesalers, butchers, chemists and many other types of retailers, who are the backbone of the economy and major investors in our town centres and local neighbourhoods. Our members have a real commitment to the environment and recognise their important role in protecting it, not only because they are local, community-based businesses with their feet on the ground but because it adds value to their business.

1183. Given that our members are small businesses, they emit, on average, three times less carbon dioxide per square foot compared with a large multiple retailer. Our members are mainly based in town centres or local neighbourhoods. That allows the public to access shopping easily on foot or by public transport. In England and Wales, because of the growth of big-box, out-of-town multiple retailers, the average person travels 893 miles a year for food shopping, and one can imagine how much carbon is pumped into the atmosphere every year as a result. It underlines another reason why draft Planning Policy Statement 5 must be published to ensure a real focus on retail-led regeneration of town centres.

1184. Our members source 100% of meat and poultry from local farmers and source as many local foodstuffs as possible from local suppliers and processors. That radically reduces the number of food miles. I will provide an example of how that impacts on climate change. For instance, food from Mexico emits over 5,278 kg of CO₂, whereas only 17 kg is emitted if food is sourced locally. Although multiple retailers in the UK have improved their sourcing of local meat and poultry, they cannot compete with our members' commitment to local food suppliers and support for local farmers.

1185. We recommend that the Assembly ensure that information on food miles is included on labelling in order to help consumers make an informed decision on food. Moreover, that

development will encourage all retailers to source locally to meet their consumers' demands. We also have an excellent track record in the reduction of the usage of plastic bags. For the past two years, our members have operated a voluntary scheme that has reduced carrier-bag usage by up to 75% in some small shops. The 'Do you need a bag?' scheme has ensured that staff ask that question to customers in local shops. It has already resulted in a reduction of more than 36,000 tons in local carbon emissions and has prevented almost 30 million bags being sent to landfill sites across Northern Ireland.

1186. Furthermore, local retailers significantly reduce their carbon footprint by the way in which they pack their produce. Packaging makes up almost a quarter of household waste, and 70% of that is food-related. In contrast, buying fruit and vegetables from independent shops can produce an estimated 75% less packaging and food waste.

1187. Dramatic hikes in energy costs for small businesses have taken place in recent years, with many of our members seeing their bills rising by as much as 60%, as well as trying to stay afloat in the midst of a serious recession, in which consumer spending has decreased. The Minister of Finance and Personnel must be commended for introducing, after much lobbying from us, a small-business rates-relief scheme, which will result in a 25% rates reduction for some 16,000 local small businesses.

1188. We recommend that that scheme be expanded to provide additional rates relief for small retailers who invest in renewable-energy systems for their businesses. In our view, that is the only real way in which to reduce our reliance on high-cost fossil fuel and to reduce energy costs for small businesses and retailers.

1189. Mr Paul Stewart (Northern Ireland Independent Retail Trade Association): Thank you for giving me this opportunity. I run a supermarket in Magherafelt that has been going for 100 years, or for almost the same length of time that the Eiffel Tower has been standing.

1190. We have taken several environmental measures. In 2005 and 2006, we put in a heat-reclaim system, which takes all the energy from refrigeration. Refrigeration engines create a great deal of heat, and through our system, which cost around £40,000, we get that energy back. The payback will come over, perhaps, eight years. When people sell such systems, the payback that they advertise is often more than it really is, so one must be careful. We use a great deal of hot water, and the system heats the water up to 60°C, which is hot enough for all our needs.

1191. That is an example of our use of a hi-tech system. Sometimes people think that independent retailers all run backward wee shops, but we have special electronic expansion valves and refrigeration switches to make things work more efficiently and to save energy.

1192. In 2008, we installed a wood-pellet boiler for all our heating needs. We did that because the price of oil was going through the roof, and I did not want to be reliant on oil coming from Iraq or somewhere similar. Our pellets come from County Fermanagh. You have heard of food miles; these are fuel miles. We are lucky to have that resource in Northern Ireland. That is up and running and is going well.

1193. We had a free consultation from the Carbon Trust, and that was very useful. Out of that, we did some training initiatives. The simplest measure of all is to switch off lights. In some months, we saved around 8% on electricity. At a time when the price of electricity rose by 45%, a saving of 8% on usage was fantastic and a real benefit.

1194. We had a big campaign on the use of plastic bags. We are only a small, 14,000 sq ft supermarket in Magherafelt, and we spent £50,000 on packaging last year. That is an enormous

cost for bags that are filled with groceries, taken home and thrown in the bin. We have poster in the supermarket that says, 'We used 1 million bags last year — that is ridiculous.'

1195. We trained staff to ask customers whether they needed a bag, and we supplied reusable bags. At our own expense, we did a great deal of marketing on the issue. Hopefully, we will save money in the long run. That matches up with the Government's recommendation for retailers to cut back on plastic bags on a voluntary basis, unlike in the South of Ireland, where statutory legislation was introduced.

1196. We have invested in 200 acres of forest in Scotland. We may be the only carbon-neutral supermarket in the UK, but I have not looked into that.

1197. People may say that the multiples could take all those measures. I recently did an exercise on food miles. We are only one supermarket in Magherafelt, and we spend £1 million a year within an eight-mile radius of Magherafelt. That does not take into consideration that we buy a lot of chickens from Ballymena — I am not counting that. I refer to bakers, pie makers and other suppliers. That is our contribution: multiples cannot do that.

1198. When we learn that there is 500,000 sq ft of planning applications for out-of-town shopping centres, we think that that is wrong. We do not merely have aspirations, for we have done it. Independent retailers are at the cutting edge of this sort of stuff, and we deserve to be supported. PPS 5 must be finalised and protected because, if out-of-town shopping centres relied on wholesale, we would not be there. The loss of £1 million, spent annually within an eight-mile radius of Magherafelt, would destroy an infrastructure of bakers and other suppliers. They would not be there either. We ask you to take that into consideration. We are serious about retailing, and serious about the environment.

1199. Mr Ross: I asked this question of the Ulster Farmers' Union earlier. The purpose of our inquiry is to determine not just the impact of climate change but the impact of climate-change policy. Last week, the Institution of Highways and Transportation gave evidence to the Committee. It said that Government should introduce road tolling; increase the amount of money that one must part with to park in town centres; make people who work in town centres pay for parking; and so on. It was an effort to keep people out of town centres and stop them from travelling individually.

1200. Draft PPS 5 tries to get more people into town centres, but if we were to down the route that was suggested to us last week, what sort of impact would that have on small retailers? Out-of-town shopping centres are the big threat, because they are places to which people can bring their cars and park for free for however long they want. What sort of effect would that policy have?

1201. Mr Roberts: I have not seen what the Institution of Highways and Transportation has put forward. On the basis of what you say, it does not stack up.

1202. Car parking is an important part of an integrated approach to addressing town centres and investment in towns. We have to get this right. Many of our towns are market towns, designed in the old days for horses and carts rather than cars. We must address it. In every town, this is a big issue. Car parking should be cheap and affordable, and there should be as many public car parks as possible. Some 27% of people in Northern Ireland have no access to a car. That includes many older people who, if they lose the resource that is their local shop, will come under huge pressure.

1203. Our message is clear. We want a much greater focus on expanding and developing the town centres, and in getting the multiples to come and invest in them. When they come, they add value to the entire town.

1204. I will read with interest what the Institution of Highways and Transportation had to say, but on the face of it, it does not stack up.

1205. Mr Ross: I have two other points. You mentioned food packaging, and how you would like to see food miles included on it. When the UFU gave evidence, it voiced concerns about the carbon-labelling of foods. Have you any view on that, or have you had any discussions with the UFU about it?

1206. Mr Roberts: We have a very good relationship with the Ulster Farmers' Union. Paul Stewart and I met with its president, and we have an ongoing working relationship on a whole range of issues. Our members give the farmer a far better deal than the multiples. We ensure that the farmers get a fair price for their product. The multiples dictate the price to the farmers. We have seen clear evidence that, in a bid to drive down prices, Tesco has dumped much of its local suppliers in the Republic of Ireland. That is estimated to have cost 50,000 jobs. If we allow the big multiples to get a grip on, or to monopolise, the grocery sector in Northern Ireland, what is to stop them from dumping their local suppliers and getting that produce elsewhere?

1207. Not only is that bad for the economy, but it will lead to the build-up of food miles and ensure that we are all held to ransom. That is why we want to see a diverse retail sector with independent, niche and multiple retailers expanding in our town centres and with no one having a monopoly. Monopolies are dangerous in any sector.

1208. Mr Ross: A lot of retailers are voluntarily trying to reduce the number of carrier bags that are used. I have difficulty accepting the imposition of another tax. What is the association's view on the carrier-bag tax? Should that continue to be encouraged among supermarkets and retailers on a voluntary basis, or do you think that Government or the Assembly should introduce a mandatory tax on all retailers?

1209. Mr Roberts: Figures show that the voluntary approach has worked. The British Retail Consortium, which represents large retailers, has copied that approach. That is welcome, but it has been shown and can be clearly demonstrated that the voluntary approach works. The Minister of the Environment has ruled out a carrier-bag levy.

1210. Mr Stewart: We have heavily marketed a voluntary approach, and it works for us. I have been round checkouts myself and seen that a lot of people bring in bags. That did not happen two years ago, and I did not think that it would. I was in favour of the tax at one stage, but now more than 50% of shoppers bring their own bags.

1211. Mr Ross: Is their only incentive to do that your signs declaring, for instance, that a retailer used 1 million bags last year? Are retailers offering any other incentives?

1212. Mr Stewart: Yes. Shoppers are given 2p for every bag they bring back. It is only 2p, but it sends a message that a bag has a value. If we were ever brave enough, without a tax, to follow Marks and Spencer and charge for bags, people will already have it in their minds that a bag is worth 2p. Therefore, we give them 2p when they bring back a bag. It has been a big push, but, given that we spend £50,000 a year on packaging, it is been for a reason.

1213. Mr Boylan: I thank the witnesses for their presentations. I am glad that the question on the plastic bags was answered, because I was going to ask it.

1214. There are two issues that I want to raise. Mr Roberts said that the association was trying to encourage multinationals into town centres. Some of the towns that he mentioned are market towns that could not facilitate multinationals. A car can hardly be driven down some streets in old market towns. Can policies address that? The association raised the issue of PPS 5, but can we use policy to encourage any newbuilds to be energy efficient and low carbon, thus stimulating value for money and competition?

1215. Mr Stewart has explained how he adapted his building to make it low carbon and more energy efficient. Given the current economic climate, what incentives are there to encourage the retail sector to adapt their buildings for low energy and low carbon?

1216. Mr Roberts: Multiples that have set up in many of our town centres — good examples include Bangor and Ballyclare — have tailored the size of their stores to the town rather than expect the town to tailor itself to the multiple.

1217. Sensibly, some multiples may adjust the size and scale of their operation to fit in with town centres. However, the draft PPS 5 contains a stronger sequential test for that. That would not necessarily be ruled out if there were a big demand for an out-of-town store and all the retail-impact assessments had been carried out. However, the association's firm policy is that the town centre should be approached first.

1218. At some point after the publication of draft PPS 5, I believe that we will move to the capping system that operates very well in the Republic of Ireland, which prevents buildings extending beyond a specified square footage. That might be the next move.

1219. In answer to your question, incentives must be made available. Zero- or low-interest loans are available from the Carbon Trust, but we should use our rates system to incentivise retailers to make those changes. It is not just about building the sustainability argument into the equation; it is the only real way to get retailers to reduce their energy costs. The reality is that we are still dependent on fossil fuels, the price of which will continue to rise. Fossil fuels are obviously a finite resource, so there is a green argument, but also a practical business argument for making those changes. If we took the current small business rates relief scheme, which is due to be implemented in April 2010, a stage further, businesses such as Paul Stewart's, which are willing to make the investment, would get rates assistance. Owners of new homes are eligible for domestic rates relief — why not expand that further and use our rates system, which is really the only taxation power available to the Assembly? Retailers are under huge pressure to pay for their energy costs. Refrigeration is the biggest headache. Consumers are spending less, and retailers have more stock in their shops, which causes greater pressures, particularly during a recession.

1220. Mr Beggs: I commend Mr Stewart for helping the environment, which, I dare say, has helped his business too. His work is very farsighted. Did you have to proactively seek independent advice and assistance from the Carbon Trust or did it come to you? Did you determine that more or less help would have been sufficient? What was your reaction to the help that you received?

1221. Mr Stewart: I was the proactive one; there was nobody knocking on my door. I saw an advertisement for the Carbon Trust, and I followed it up and got a free consultation. They recommended switching off lights and adjusting boilers, but the heat reclaim from refrigeration and the wood-pellet boiler were personal initiatives. I spoke to the suppliers of those systems and took their recommendations on board. I am interested in that sort of thing, so I was keen to do it.

1222. Mr Beggs: Do you accept that most small business owners are caught up in the day-to-day running of things and that you have to stretch yourself to make the time to implement those changes? Earlier, we learned about a scheme in the eastern border region that provided advice centrally and out to businesses, and started to measure energy use. Not many people have access to the equipment that measures energy use or electricity consumption. If such a scheme were extended, would more small business owners like you be able to take it up? The multiples have their own full-time engineers to advise them, and they regularly install new equipment. Do you agree that significant energy improvements could be made if more proactive advice was available?

1223. Mr Stewart: Yes. Technology has moved on; at the moment, someone is trying to sell me a computerised system that measures the energy consumed by each electrical appliance that I use and tells me whether they are working efficiently or not. That would be nice to have, but it is quite expensive. The ability to measure consumption at that level lets you know what you have to do to upgrade machinery. To have that sort of help would be excellent.

1224. Mr Beggs: I want to turn back to the issue of out-of-town and town-centre shopping options and the impact of PPS 5.

1225. The out-of-town shopping centre virtually dictates the need for a car. Few people who visit them use public transport. Do you agree that, in the long term, we do not know what the future is for the car because of the reduction in oil reserves? When any new shop is built, it is not being built for five or 10 years, but, probably, for 20 or 50 years. Is there a need for politicians to take the lead on that issue?

1226. Mr Roberts: One difficulty with town-centre regeneration is that three different Departments are responsible for planning. DRD deals with car parks and roads. DOE deals with core planning. DSD deals with town centres. Therefore, it is difficult to get an integrated approach with that number of Departments, which, at times, have overlapping responsibilities. That is perceived to be the case.

1227. As we said in our evidence to the DSD Committee, we want a town-centre regeneration agency to be established that can put forward changes to town centres that are retail led, have focus, and can address issues such as streetscaping, pedestrianisation of certain areas, how public transport supports local towns, and car parking. Therefore, we need a dedicated agency to push the town-centre regeneration strategy. We do not have that.

1228. The number of town-centre managers is also declining. At present, there are barely 10. Just a few years ago, there were 26. Therefore, we need to get back not only to a strong system of town-centre management, but to town-centre partnerships. As you know, one such partnership has been established in Carrickfergus. Other good examples exist in places such as Ballymena, where all the players are on board to try to address those issues. It is important that we do that. That is the most frustrating part of the job that I do to support town-partnership members — the sheer number of agencies with which we must deal. That is frustrating and, at times, makes life incredibly difficult. We must jump through many hoops to deal with the simplest of matters, such as getting a new car park.

1229. The Chairperson: Thank you very much. It is good to see both of you, and we are grateful for the informative evidence that you have provided. I must declare a maternal interest: my mother has shopped religiously at JC Stewart's for many years.

1230. Mr Stewart: I can tell you that it is all appreciated.

1231. The Chairperson: There is a family connection. It is great to see you. Thank you very much indeed for your time.

1232. The next item on the agenda is the oral evidence session with CTS Projects Ltd. The company offers services including design, installation, commissioning and servicing of specialist products to the private sector and subsidiary companies, partner firms and approved subcontractors. The company offers services that relate to all construction technology throughout the British Isles. Those include facilities management, mechanical and electrical contracts, design installation, maintenance packages and house construction. A summary of the CTS Projects submission to the inquiry is provided in members' packs, along with the specialist adviser's comments.

1233. We are joined by Connaire McGreevy, manager of CTS Projects, and his business colleague John Hardy. It is good to see you. You are familiar with the Committee format; you have 10 minutes in which to give us supplementary information on your submission. Members will then ask a few questions.

1234. Mr Connaire McGreevy (CTS Projects): Thank you very much, Chairperson, for inviting us to speak to the Committee. We greatly appreciate the opportunity to address the Committee and to make our submission. As the Chairperson has explained, our company is involved in renewable energy, mainly to advise homeowners and businesses on how to save energy. I also have personal involvement. I studied climate change and, therefore, have a good working knowledge of the subject, which I have brought to business.

1235. I believe that climate change is natural. Man is having an impact, but other things happen that we are not fully responsible for. There are three major factors: the cycle of the orbit of the earth changes every 100,000 years; the axis of the earth changes every 31,000 years; and the rotation of the axle and the position of polar north changes every 20,000 years. Throughout the last 400,000 years, that has resulted in ice ages and warm periods; however, the difference now is that CO₂ levels are rocketing. The levels are now reaching 380 parts per million in the atmosphere, which is unprecedented. We can all make guesses and look at climate models, but nothing can tell us the exact impact of that.

1236. What is clear from the IPCC is that CO₂ levels must be tackled. At CTS, we are tackling them through our manufacture of renewable-energy products. It is good to see the Environment Committee carrying out this inquiry, but I would like to see a more joined-up approach from all Departments. Hopefully that can happen in the future.

1237. I spent months in Scandinavia studying ice cores and tree-ring general chronology, from which I learnt a lot about past climates. In Scandinavia, the gross domestic product has been increased since the introduction of 20/20 vision of removing fossil fuels. No other country in the world has addressed that yet. Some 44% of energy used in Scandinavia is renewable. The EU target is 50%. Northern Ireland is lagging behind.

1238. I heard a member refer to the economic recession. A £10,000 grant has been made available in Sweden to get construction workers involved in projects for energy efficiency. That has enabled people to go back to work. Last week in Sweden, I was meeting some businesses and discussing that plan, and I would like to inform the Committee of some of the details of those meetings, as they may be beneficial. The targets for reducing carbon emissions in the rest of the UK must be introduced, and that may be related, so I will pass on the details of that too.

1239. I will now hand over to John Hardy, who is my colleague in CTS, and is also the secretary of the Sustainable Energy Association for all of Ireland. He will provide some more information.

1240. Mr John Hardy (CTS Projects): Thank you Connaire, and I thank members for having us along today. I will briefly refer to climate change and the opportunities that it presents in Northern Ireland, as well as the need to deal with it. You have probably already heard from various other consultees about the effects of climate change, and the science behind it. This afternoon, various organisations have spoken about climate change and its effects.

1241. In our submission we state that, although climate change is a threat, it can also be an opportunity. Even if one does not believe that climate change is related to CO₂ levels, the production of CO₂ is a side effect of over-consumption and a lack of sustainable consumption. There is need to consider how we can tackle the core causes of CO₂ production. That is obviously strongly related to energy production in Northern Ireland, given the fact that 98% of our energy is produced from imported fossil fuels. It was mentioned earlier that the fact that we have to import so much from overseas, and that we are at the end of a long pipeline, accrues not only food miles but energy miles.

1242. One of the key ways in which we can tackle that is to focus on the CO₂ and set targets. Northern Ireland is lacking targets for renewable energy production; we fall well behind the Republic of Ireland, where targets have already been set, and targets have even been set for the rest of the UK. Unfortunately, Northern Ireland is still in the process of establishing what those targets should be. That causes quite a problem, because the Government do not know what they are aiming for. The public perception is that there is no target to aim at, and businesses cannot set long-term targets in their business plans, because they do not know how high the bar that they must reach is set.

1243. We urge that targets be put in place, not only for energy use but for energy efficiency and CO₂ emissions. Considerations of CO₂ production can tie in with social and environmental aspects of climate change. Our submission includes more specific goals and aims, which Connaire will discuss in more detail.

1244. Mr McGreevy: In our submission, we have included immediate, medium- and long-term goals for the Northern Ireland Assembly to consider. All those goals are attainable, and they target CO₂ emissions, which the IPCC says we must reduce. In the past 400,000 years, including ice ages and interglacial periods, CO₂ levels have never reached anywhere near the level at which they are now, and that is why we must tackle CO₂ emissions.

1245. The measures that are outlined in our submission could be introduced quickly and cost-efficiently, and introducing them would add to Northern Ireland's GDP and turn its economy into a green economy. We must look at the green new deal and take forward measures to implement it, and I urge the Committee to use its influence with other Departments. In addition, a sustainability Committee should be established at Stormont to consider social, ecological and economic costs. Our submission also sets out details of what each Department can do.

1246. Mr Boylan: Thank you for your presentation. In your submission, you criticised the warm homes scheme. Is there a better way of doing that? Why do you feel so strongly that it is inadequate?

1247. Mr McGreevy: There are no targets in the scheme to increase the use of renewable energy. DSD's policy is to install gas where it is available and oil elsewhere, and the policy of the warm homes scheme follows through to the Housing Executive's policy. The current tender for the warm homes scheme includes a target for reducing energy consumption by 15%. By 2013, when the present warm homes scheme ends, DFP will have introduced a new 25% reduction requirement to building regulations, and by 2016, a 44% reduction in CO₂ emissions will be required for newbuilds. Therefore, achieving 15% energy savings now will be a complete waste by the end of the warm homes scheme.

1248. Mr Boylan: The figure in the building regulations is the minimum requirement, which will change. We could address that now, but people will only work to the targets that exist at the time. Furthermore, the warm homes scheme provides funding.

1249. Mr McGreevy: It does.

1250. Mr Boylan: Should we keep asking for public funds to adapt those old buildings?

1251. Mr McGreevy: Yes; a lead must be taken. Money must be made available, because the warm homes scheme is aimed at tackling fuel poverty. Usually, it is older buildings that must be adapted, but people who live in fuel poverty cannot afford to adapt them. Consequently, they must spend more and more money on their energy needs. Given that 40% of carbon emissions come from buildings, it is right that the warm homes scheme addresses problems in older houses. Energy savings of 15% are required now, but savings should be on a sliding scale. Next year, the requirement should be 20%, and 25% the year after. At least then we will keep in line with newbuilds. The assessment procedure is all about lowering operating costs.

1252. Mr Boylan: You outlined a number of actions. Are they to be prioritised, or are you just concerned that they happen?

1253. Mr McGreevy: I have prioritised those as immediate-term, medium-term and longer-term actions. I did that by analysing costs and identifying the most cost-efficient measures. The immediate-term actions are those that will not cost a huge amount of money. DSD has a regulation that sustainable homes must be built to a code level-3 standard. However, houses that are being bought by housing associations and so on have not been built to that standard. Those are simple measures that can be taken.

1254. Mr Boylan: I am glad that you made that point, because it has one that has raised its head before. It is ridiculous that private housing, which has been built to certain standards, now has to be adapted to meet social-housing standards.

1255. Mr McGreevy: Those houses produce 25% more CO₂ emissions, and easy measures can be taken to target that problem. Developers have asked us how they can do it. I do not want to criticise too much, but, in the past, the Building Research Establishment (BRE) in England told the Department here not to have such a high grant level because it would encourage higher prices. When Members at Stormont have looked at renewable energy, they have always seen higher prices. However, private businesses have only increased prices because grants are available. Prices must come down to a more realistic level — it is only when that happens that the economic, ecological and social cost-saving benefits of renewable energy will really be felt.

1256. The Chairperson: That is a valid point that relates to the energy savings that can be made through the warm homes scheme. We need to obtain information from DSD about the standards that it has set and about grants, be they replacement grants or renovation grants. I just do not know what building standards have been applied by the Housing Executive in dispersing grants. I hope that there are standards that will create overall benefits in the longer term, but it is something that we need to establish.

1257. Mr McGreevy: The policy is to put gas boilers into houses where there is a gas line; outside of that, oil is to be used.

1258. The Chairperson: I am talking about the quality of construction.

1259. Mr McGreevy: The third of the immediate-term measures deals with that. It is to:

"Insist that all homes being bought from private developers for social homes meet the DSD commitment to Code Level 3".

1260. Point four is to:

"Link PPS 18 & PPS 21 (PPS 14) to Building Regulations".

1261. There is a conflict, so we need to bring those planning policy statements and the building regulations together. I hope that the building regulations will come through in 2010; the last amendment was dropped in 2008 due to the grants and incorrect prices. We want those building regulations to come through, and there are very simple things that can be done.

1262. We also made a submission regarding the green rebates, but we felt that those were not wide enough to tackle renewable energy. The IPCC and the Department for Environment, Food and Rural Affairs (DEFRA) have already identified renewable energy as one way of quickly reducing CO2 emissions. However, we need to give the correct costings to the Committee and others.

1263. As the Northern Ireland Independent Retail Trade Association mentioned, another way to reduce carbon emissions is through rates. Energy performance certificates (EPCs) are being created currently; indeed, I noticed a big display certificate in the foyer today. A database has been created, and it is maintained by local councils. That can be used to encourage people to enhance the energy performance of their buildings. The Committee can look at that and talk to DFP to work out how to move forward.

1264. My final point concerns public transport. Only yesterday, a friend mentioned that it costs him £7.50 to travel from Newry to Kilkeel on a big double-decker bus. As he said, it would be cheaper to travel by car. That is a nonsense that must be addressed; if people are to be encouraged to use mass transport, such cost anomalies must be removed.

The Committee became inquorate.

On resuming —

[The first minute of proceedings was not recorded due to technical difficulties.]

1265. Mr McGreevy: — £400 is, perhaps, slightly low for a solar panel. The grant covers up to 30% of the overall cost. Under the Reconnect scheme, a 50% grant of £3,250 for a biomass heater was too high. Biomass boilers are normally that price. That includes feeding systems, storage facilities, and so on. Therefore, a £1,500 grant reduces the price to that of an oil-condensing boiler, fuel line and bunded oil tank. That grant level lets people in at the same margin, and that is perfect. Once economies improve, the price of oil is likely to rise in the next five years. The best idea is, probably, to phase the grant system out, raise the energy performance certificate levels and encourage use of renewables through the rates system in the long term.

1266. Mr Beggs: You said that the warm homes scheme largely uses oil and gas. Are woodchip boilers permitted?

1267. Mr McGreevy: Wood-pellet boilers and solar panels are mentioned in the current tender. We conducted trials on them before the new tender process. Unfortunately, they do not seem to have included any targets. I know that Mr Beggs raised in another Committee —

1268. Mr Beggs: It must have been some time ago.

1269. Mr McGreevy: You asked about the price differences between the warm front scheme and the warm homes scheme.

1270. Mr Beggs: Yes, I remember.

1271. Mr McGreevy: Given the crazy prices that some people charge for renewable energy products, contractors will not use them unless a renewables target is set. That issue must be looked at.

1272. The Chairperson: Following on from that issue, what is the most effective stimulus for promoting the use of renewable energy products? Would it be grants, feed-in tariffs or a mixture of both?

1273. Mr Hardy: Feed-in tariffs are more effective in promoting the use of renewable energy products to generate electricity rather than heat. Feed-in tariffs are currently being introduced in the UK. We operate under DETI, and we are taking a back seat in order to see how feed-in tariffs work elsewhere before introducing them here. Feed-in tariffs are intended to be front-loaded, so that people get much more money at the start and receive reduced amounts over time. That will encourage people, particularly anyone lending money for a renewable energy system, because they know that they will get paid quickly.

1274. Grants, however, are much more immediate. They can be set up almost straight away, whereas feed-in tariffs involve more bureaucracy on the administration side. Feed-in tariffs for heat ROCs are also going to be introduced.

1275. The Chairperson: What are heat ROCs?

1276. Mr Hardy: At present, people get paid for generating electricity from renewable energy sources. Utilities providers are obliged to provide a certain amount of renewable energy. People who use renewable energy electricity systems in their homes get paid a certain amount of money for producing electricity, which they do not have to feed that back into the grid, because those companies can use those production figures to help meet the Government-set targets on renewables.

1277. The plan is to introduce a heat incentive that will encourage people to generate heat from renewable energy sources, such as biomass boilers and solar panels. That will be a massive incentive for people to use renewables. However, a grant system is needed in the interim between now and the date on which feed-in tariffs are introduced.

1278. The Chairperson: Thank you for your time and for coming along, gentlemen. Your evidence has proven to be very interesting. Please forward to the Committee Clerk at your earliest convenience the information about the one or two things that you mentioned.

1279. We will now hear evidence from our final witness today, Mr Hans Schreuder. Mr Schreuder, am I pronouncing your surname properly?

1280. Mr Hans Schreuder: Yes, more or less.

1281. The Chairperson: Mr Hans Schreuder was born in The Hague, in Holland, where he was educated to analytical chemist level. He emigrated to South Africa in 1969 and moved to Gran Canaria in 1986 and then to Ipswich, in the UK, in 1992. He is also a member of Mensa.

Members have been provided with a summary of Mr Schreuder's submission and a copy of the specialist adviser's comments.

1282. Mr Schreuder, you have been waiting patiently all day. From observing the proceedings, you will know that you have 10 minutes in which to give an overview of your position or to add to the material that you have already submitted. After that, members will ask a few questions.

1283. Mr Schreuder: Chairperson and members of Committee of the Environment, greetings and thank you for inviting me to present my oral evidence today, which comprises mostly a number of short pertinent quotations from eminent scientists.

1284. First, allow me though to set the scene by going back one century to an equally momentous event.

"The astonishing discovery that atoms are mainly empty was made in 1909 at Manchester University by the indefatigable Ernest Rutherford. He had great courage as a scientist and was prepared to fly in the face of convention... Forced to explain the atom's mysterious emptiness, scientists had to jettison everything they had believed to be true for the two previous centuries...It was a seismic moment in the history of science."

Fast forwarding now to 2009, an Australian scientist Dr Jennifer Marohasy stated:

"Our understanding of the natural world does not progress through the straight forward accumulation of facts because most scientists tend to gravitate to the established popular consensus also known as the established paradigm. Thomas Kuhn describes the development of scientific paradigms as comprising three stages: prescience, normal science and revolutionary science when there is a crisis in the current consensus. When it comes to the science of climate change, we are probably already in the revolution state."

1285. Dr Nasif Nahle from the USA stated:

"Throughout the last decade, supporters of the idea an anthropogenic global warming (AGW) or the impact of an anthropogenic 'greenhouse' effect on climate (IAGEC) have been insisting on an erroneous concept of the emission of energy from the atmosphere towards the surface. The AGW-IAGEC assumption states that 50% of the energy absorbed by atmospheric gases, especially carbon dioxide, is reemitted back towards the surface, heating it up.

This solitary AGW-IAGEC assumption is fallacious when considered in light of real natural processes."

That is the longstanding paradigm that states that because of trace gases, such as carbon dioxide, the atmosphere heats the earth, but that is not true.

1286. The meteorologist William DiPuccio said:

"For any given area on the ocean's surface, the upper 2.6m of water has the same capacity as the entire atmosphere above it". Considering the enormous depth and global surface area of the ocean (70.5%), it is apparent that its heat capacity is greater than the atmosphere by many orders of magnitude."

and:

"The heat deficit shows that from 2003-2008 there was no positive radiative imbalance caused by anthropogenic forcing, despite increasing levels of CO₂. Indeed, the radiative imbalance was negative, meaning the earth was losing slightly more energy than it absorbed."

Members have copies of DiPuccio's graph that is included in my presentation. It clearly shows an upward trend of the climate model and a slightly downward trend of observed temperatures. I am a scientist, and I go by what I observe, not by computer programmes.

1287. Please understand what this means: there is no evidence for a recent trend of global warming per se, despite increasing alarms about carbon dioxide.

1288. A doctor of meteorology from the USA Joe D'Aleo said:

"Given the current global cooling now in its 8th year, declining ocean heat content at least in its 5th year, sea level rises which have slowed or stopped, record rising Antarctic ice extent and rapidly recovering Arctic ice since the 2007 cycle minimum, a sun in a deep slumber, increasing evidence that CO₂ is a harmless gas that is in reality a beneficial plant fertilizer, you would think that this proposed legislation"

— he is referring to proposed legislation in the United States,

"and ruling would in a sane world, have no chance of passing. But there is a huge political and NGO machine and all too compliant media and carbon crusaders like Al Gore and James Hansen and literally many billions of dollars behind making carbon evil and subsidizing unwise energy and carbon control solutions."

The point is reinforced by geologist Professor Ian Plimer from Australia:

"The proof that CO₂ does not drive climate is shown by previous glaciations. The Ordovician-Silurian (450-420 Ma) and Jurassic-Cretaceous (151-132 Ma) glaciations occurred when the atmospheric CO₂ content was more than 4000 ppmv and about 2000 ppmv respectively. The Carboniferous-Permian glaciation had a CO₂ content of about 400 ppmv, at least 15 ppmv greater than the present figure. If the popular catastrophist view is accepted, there should have been a runaway greenhouse when CO₂ was more than 4,000 ppmv. Instead, there was glaciation. This has never been explained by those who argue that human additions of CO₂ will produce global warming."

That makes a mockery of saying that today's level of CO₂ is unprecedented.

1289. Finally, Professor Will Alexander from South Africa said:

"If there was strong evidence of undesirable changes, then the whole climate change issue would have been resolved long ago.

The tragedy is that there is a world-wide policy in the opposite direction. Not only has the observation theory route been avoided, but climate change scientists and their organisations have adopted a policy of deliberately denigrating all those who practise it ... after 20 years of massive international effort (the overwhelming consensus), climate change scientists have still to produce solid, verifiable evidence of the consequences of human activities....They were unable to produce any scientifically believable, numerical evidence to support their theories. The periodicity in the data and the unequivocal solar linkage were not even addressed. This is not science... The whole climate change issue is about to fall apart. Heads will roll."

1290. There is little point in adding more observational evidence to what which has been presented to you in these few minutes. Taken in conjunction with my original submission and the additional information that was provided to the Committee before last Friday's deadline, the case has clearly been made. However, I reiterate the indisputable fact that there is not one single item of observational evidence to support the widely accepted idea that CO₂ is the cause of global warming or even has an effect on climate change. Any and all evidence that has ever been presented to support the idea that CO₂ has an effect on global temperatures has been biased, opinionated and based on an agenda that pre-emptively dismissed alternative explanations.

1291. Critically, though, the global climate can neither be averaged, nor can it be computerised. Thus, any and all scenarios from computer models are, at best, an exercise in computer programming that stand in no relation to reality, as clearly indicated by the totality of my submitted evidence.

1292. Computer simulations regard the Earth as a flat disk, without a North or South Pole, tropics or clouds and bathed in a 24-hour haze of sunshine. The reality is that there are two icy poles and a tropical equatorial zone, with each and every square metre of our Earth receiving an ever varying and different amount of energy from the sun, season to season and day-to-day. That reality is too difficult to input into a computer. Did you realise that?

1293. The Canadian geophysicist Norm Kalmanovitch said:

"It is inconceivable that even after a decade since global warming ended and seven years into a cooling trend with no end of cooling in sight, world leaders are unaware of these facts and are still pursuing initiatives to stop global warming. Something is terribly wrong with the official international science bodies such as the IPCC who have not come forward and properly informed the world leaders of current global temperatures. If in fact there is any validity to the claims of CO₂ increases causing warming; the fact that we are cooling at twice the rate that the climate models say we should be warming is a clear indication that natural forces are about three times stronger than the maximum possible effects from CO₂ increases."

1294. If carbon dioxide is really such a danger to mankind — as the United States Environmental Protection Agency would have us believe — then the upcoming Olympic Games should be cancelled, as well as all other big sporting events. All road and air transport should be stopped and all coal- and gas-fired power stations should be shut down. Clearly there is no need for such drastic action; clearly carbon dioxide is not dangerous at all.

1295. From the word go, the United Nation's Intergovernmental Panel on Climate Change (IPCC) has provided us with scenarios based on the principle of perpetual mobility that clearly indicate that the world is getting warmer due to re-radiated infrared energy from the increased levels of carbon dioxide. That scenario cannot physically exist — period. The sun heats the earth; the earth then heats the atmosphere, not the other way around. The only possible effect that carbon dioxide could have on the atmosphere is to increase heat dispersion and cause cooling.

1296. As a further rebuttal of the influence of carbon dioxide on the climate, the alleged IPCC greenhouse effect is a non-existent effect. No greenhouse made of glass, plastic, cardboard or steel will reach a higher inside temperature due to the magic of re-radiated infrared energy. If it did, engineers would have long ago been able to design power stations made from air, mirrors and glass that would extract more energy than would be put in. If only.

1297. In conclusion, a century after Rutherford's momentous experiment, I urge this Committee to consider nothing but the facts before them. Those facts are that carbon dioxide does not and cannot cause global warming; the currently accepted paradigm notwithstanding. Any and all

schemes to reduce carbon dioxide emissions are futile in relation to having an effect on reducing global temperature or affecting the climate. Any and all carbon-trading exchanges are a fraudulent exercise amounting to nothing more than hidden taxation.

1298. If this Committee comes to the conclusion that emission controls need to be imposed on the people of Northern Ireland to make a difference to global temperatures, it will have failed, to a substantial degree, to understand the issues in hand. Thank you.

1299. The Chairperson: Thank you for expressing your views to the Committee, Mr Schreuder.

1300. Mr Ross: None of the Committee members are scientists, and we also have to go on the facts. You mentioned the computer models that have been used, and, as a layman, I find it difficult to see why meteorologists cannot tell us what the climate will be in ten years, yet they seem to be able to tell us what it will be like in 100 years. The cynic in me says that those scientists are not going to be around then to defend themselves, so they do not have to be right.

1301. Obviously, you cannot predict what will happen in the future, but you can look at the past. If you use the models that are being used to predict the future at the moment, and if you take what has actually happened in the past and plug those figures into those models, do the forecasts match up with what has happened?

1302. Mr Schreuder: Not at all. It is absolutely impossible to mimic the earth's climate in a computer, because of the very basic fact that the earth is a sphere. A computer cannot handle a sphere; it can only handle a disc. Therefore, similar to the projections in a world atlas, computers draw the world as being flat. That is not what the world looks like, but that is how the computer has to see it. There is no day and no night; there is no icy pole or equator.

1303. The computer averages everything out, and the predictions given are mathematically possible, but they are also mathematically meaningless. A classic example — and I do not wish to be rude with this at all — would be if you put your left foot in a bucket of water at 74°C and put your right foot in a bucket of water at 0°C, and when you touch your crotch it would be the perfect average temperature of 37°C. That is because 74° plus 0° is 74°. When we divide that by two we get 37°, which is the perfect body temperature. However, if you were to stand in those buckets for long enough, you would have to have both feet amputated: one due to heat; one due to hypothermia. You would have no feet, but your crotch would still be 37°C. That is a very simple example, but that is exactly why you cannot average the climate.

1304. A further example is that tonight in Belfast, the temperature will be 6°C, this afternoon it is 20°C. Is the average temperature 13°C? It might have been 13°C at 9.00 am, and it might be 13°C again this afternoon. It is quite meaningless to work with averages locally, never mind across the whole world.

1305. Climate models take the Poles as being -50°C and take the equator as 50°C — sometimes the extremes are greater — and the average is 0°C. That is pointless. The same applies to solar energy. The computer models divide the solar energy across the whole world, but the sun shines for only half the day, not all day long.

1306. Mr Ross: I noticed that you were shaking your head when previous witnesses spoke about carbon dioxide being the main contributor to climate change. You said in your written submission that pollution was a problem but that you do not see CO₂ as a pollutant. Can you explain that?

1307. Mr Schreuder: My scepticism on climate change is based on the word "anthropogenic" or man-made. No one can deny climate change. If there was no climate change, we would not be here. There is very little climate change at the South Pole or the North Pole — the deepest parts

— which is why it is so flipping cold. There is hardly any input from the sun. I strongly believe in tackling pollution, and mankind is a master at polluting the environment. I have seen some of it myself. I have lived in many places in the world, and my heart cries for the real pollution, which is not being tackled.

1308. In the meantime, carbon dioxide, which is absolutely 100% harmless and, if anything, is beneficial, is being legislated against as pollution. That is complete madness. Billions of dollars are being spent on trying to prove an effect that does not exist — the greenhouse effect. Temperature increase due to re-radiated infrared is not possible. If it were possible, we would have solved our energy problem. The original emitter of energy, whatever it is, goes up. Some of the energy is bounced back — absolutely. Re-radiation goes on, but it can never heat the earth, because if it did, the earth would be hotter and would radiate more and more, and the temperature would shoot up. Long ago, engineers would have been able to design an energy-producing system, in effect, using a one-watt bulb and a tunnel with mirrors and carbon dioxide, which, if the tunnel were long enough, would produce 1 GW. Marvellous.

1309. In my submission, I stated the driving force behind making carbon evil. It is most unfortunate. There are sections within the United Nations who are determined to have world domination. It is all online; Agenda 21 and my website contain all the details of their objectives. We wrote to the United Nations Secretary-General and never got a reply. Our letter to him was featured on other United Nations websites. Let that speak for itself.

1310. Mr Ross: You mentioned Al Gore. Climate change is a popular subject with the mainstream media. Creating a film was one way for Al Gore to ensure that he tapped into young people's consciousness. In the 2000 presidential election, Al Gore claimed that he had invented the Internet, so I do not always believe everything that he says. Most of us round the table will have seen his film, 'An Inconvenient Truth'. What is your evaluation of the major claims that he made, which you dispute?

1311. Mr Schreuder: I would like to make three points. First, Lord Monckton financed a court case, whereby he took the Government to court because schools were going to show that film and not show any other scenario. A parent took up that point with Lord Monckton. He is a foremost sceptic, and he financed the court case. The court found 35 errors in the film. It was astounding. As a result, schools had to show alternative scenarios instead of just 'An Inconvenient Truth'.

1312. The big, visual impact that Al Gore made was based on two graphics showing the presence of carbon dioxide and temperature. They looked very similar, because temperature affects carbon dioxide, not the other way around. The graphs may appear to line up, but if you were to look at them accurately and made the scale of the graphs much longer, you would see that temperature peaks first, then carbon dioxide.

1313. That makes perfect chemical sense, because the major store of carbon dioxide is our oceans. The warmer the water, the less carbon dioxide it can hold. If fizzy water is allowed to stand, it will go flat. That is because, as well as warm water's not being able to dissolve as much carbon dioxide as cold water, carbon dioxide prefers to be in the air as a gas rather than link up with water. One of the basic principles of chemistry is that any reaction only takes place if the result is more stable. If the result is not more stable, there will be no reaction.

1314. I have worked in a rocket factory in South Africa. The core of a rocket is made up of two solid, separate chemical elements that are touching each other. No reaction takes place; none. However, when the rocket is shot into space, a fuse is inserted between the two elements. At one tiny little point, 2,000°C of heat is created, and the rocket shoots up. Before that, those two

chemical elements sit together, next to each other. If you were to see it, you would not believe it. They cannot react. The force to make them react is not there.

1315. Those are the points that I make about Al Gore. I personally believe, after all that I have seen and read, that Al Gore has been taken in by the evidence that he, in turn, was presented with. However, I am presenting you with actual evidence. Most of the people before me had no evidence. They merely had bits of circumstantial information, not actual evidence that proved absolutely that it is only carbon dioxide that acts in this way.

1316. Why is it that, when a little piece of ice falls off Antarctica or the Arctic Peninsula, it makes the headlines? What about the other 97% of the Antarctic that has increased? Three teams went to the Arctic, all of which had to be rescued. One team was rescued by an oil tanker.

1317. Mr Ross: Why do you think that more scientists do not concur with your view?

1318. Mr Schreuder: You do not hear about those, because the media does not report on them. Part of my submission is a short essay on the Intergovernmental Panel on Climate Change (IPCC), which disproves the myth that there are 2,500 scientists who support that human activity causes climate change.

1319. There are at least three lists that I am aware of containing the names of at least 41,000 scientists — professors, PhDs, normal scientists like myself — who signed their names to say that global warming is nonsense. Nobody hears about them because of the newspapers. There is no money in what I say. I say that we do not need to do anything; just drop it. There is no money in that. Nobody would want to buy a newspaper if all is well. People would think "why should I buy a newspaper? Everything is alright."

1320. It is the same in industry and in academia. Those people want panic so that they can say that they can sort the panic out if they are given money to do so. Even though there is no real panic, they insist on proving that there is in order to get just a little bit more money. Over 20 years, \$50 billion has been spent on climate issues. Not one single piece of irrefutable evidence exists to prove that it causes global warming.

1321. If you were to take a flask, fill it up with air and put it under a heat lamp, then compare it to another flask without air, that one would get warmer, because the contents can absorb more energy. If you add carbon dioxide, it will get even warmer, because carbon dioxide reacts to radiation. That is why I think that if anything, carbon dioxide will have a cooling effect on the atmosphere.

1322. Radiation, energy, is such that when it hits matter, it increases the vibration of that matter. That usually means an increase in temperature, except in water — that is another matter. All other materials will increase in temperature. Immediately, at the speed of light, it will start emitting that excess energy to its surroundings, unless those surroundings are all at the same temperature. In that case, everything warms up. That re-radiation of energy goes in all directions.

1323. Carbon dioxide in the air is hit by energy. It radiates in all directions. That energy does not get to the earth anymore. It stays in the air. If we did not have water vapour in our atmosphere, we could not live here — not because water makes life, but because water stops so much energy from hitting the earth through the clouds.

1324. Mr Beggs: Thank you for your presentation. You said that you think that a natural phenomenon has three times stronger an influence on climate change than man-made issues. On what evidence do you base that?

1325. Mr Schreuder: That is a quotation from Norm Kalmanovitch. It is based on an example of the difference that is included in the graph that has been circulated to members. That graph was created by Joe D'Aleo: it is there in black and white.

1326. Mr Beggs: Do you accept that, if we cannot do anything about the natural phenomenon, we can at least influence the other quarter. Is that not true?

1327. Mr Schreuder: No.

1328. Mr Beggs: You have indicated that man is contributing to one third the strength of the change.

1329. Mr Schreuder: No. Norm Kalmanovitch states:

"natural forces are about three times stronger than the maximum possible effects from CO2 increases."

1330. He refers to the "maximum possible" effect. This is by no means an established fact.

1331. I, with my knowledge, and a bunch of professors and PhDs behind me, am at the very cutting edge of climate science. We say that man has no influence on climate change at all. Norm Kalmanovitch, and I met him a few weeks ago when he was in England, still thinks that there is some sort of greenhouse effect. It is so difficult to talk even to sceptical scientists. They still believe that man has some influence. Man has zero influence.

1332. Mr Beggs: You say that there is absolutely no proof that carbon dioxide has any influence on global warming. Do you accept that science is about observation and constructing theories from those observations, and ultimately constructing computer models and so on to explain that? There are very few absolute proofs of any format in science. That is an easy line to take.

1333. Do you accept that people have given us evidence, even today, that the best available scientific knowledge and information points towards a man-made contribution to climate change?

1334. Mr Schreuder: Sure, because that is the accepted paradigm. That is exactly the same thing that happened to Dr Rutherford in 1909. He and his team were the only ones; they had to overthrow two centuries of the accepted paradigm. The fact that thousands or tens of thousands of people accept something in science does not make it true.

1335. Mr Beggs: You talked about computers only working on a single dimension; that they cannot work in a ball. I am at a loss with that statement. If you are sending a rocket into space, you have to work in three dimensions. You have to work with pressure, temperatures and a whole range of things. Even as an undergraduate, I did some computer modelling involving pressures and temperatures. Where did your assertion that computers only work on a flat earth come from?

1336. Mr Schreuder: Unfortunately, that is a fact.

1337. Mr Beggs: How is that a fact?

1338. Mr Schreuder: That fact comes from the computer modellers themselves. That is what the whole thing is based on. No computer is powerful enough to model a spherical earth where each square metre receives a different rate of sunshine.

1339. Mr Beggs: Even if everything about CO2 being responsible for global warming is complete nonsense, do you accept that we have a diminishing hydrocarbon supply; that we are running out of gas? North Sea oil production has already peaked.

1340. Many believe that we have already hit peak oil. Ultimately, there is a limited amount of hydrocarbons under the earth's surface. Even were you correct, there is a need to conserve hydrocarbons and restrict CO2 production. Do you accept that?

1341. Mr Schreuder: I would not restrict the production of CO2.

1342. Mr Beggs: Do you think we should burn as much coal and oil as we can?

1343. Mr Schreuder: It makes no difference.

1344. Mr Beggs: It will make a difference if we run out of oil, coal and gas.

1345. Mr Schreuder: In the 1980s, when I lived in South Africa, there was a major oil crisis and we were forced to travel at 35 mph on the motorways because the world was running out of oil. The world is once again running out of oil. No, it is not.

1346. For starters, there are known reserves of several trillion barrels of oil. New oil is discovered all the time. Why is this? It is because the earth produces oil all by itself. Oil is not based on dead plant or animal material. There is not a single trace of animal or plant material in crude oil.

1347. Mr Beggs: What is it based on?

1348. Mr Schreuder: Crude oil, according to cutting-edge Russian science, is made deep inside the earth from carbonaceous material, and a whole lot of other material.

1349. There is no such thing as there being a shortage. There are enough coal reserves in the world at least for another millennium, at current consumption — millennium, not century. I do not know about gas.

1350. Mr Beggs: I must ask about another point —

1351. Mr Schreuder: Scare stories sell. That is why the price of oil goes up. What is the price of oil? It is \$140 dollars a barrel — because there is hype, and because there is money in it.

1352. Mr Beggs: You do not believe that the earth's climate is heating up. Do you not accept that, from satellite imaging of the earth's surface, measured from space, it has been heating up?

1353. Mr Schreuder: Absolutely.

1354. Mr Beggs: I thought you said that it was not heating up.

1355. Mr Schreuder: No. This is the difference: I do not say that the earth has not been heating up, or that it is not cooling down. What I say is that man has no influence on it. That is the crucial difference.

1356. Mr Beggs: Can you explain further some of the evidence that you have presented from Joseph D'Aleo? He has stated that the sea-level rises, which has slowed or stopped, record rising and Arctic ice extent and rapidly recovering Arctic ice since 2007 minimum cycle. He said:

"sea level rises which have slowed or stopped, record rising Antarctic ice extent and rapidly recovering arctic ice since the 2007 cycle minimum."

1357. I do not recognise that description. I still see pictures of the Inuit with their snowcap disappearing and stories from the Antarctic with large ice blocks breaking off as a result of global warming. How can you provide evidence of rising ice extent?

1358. Mr Schreuder: First, the information about both the Arctic and the Antarctic comes from the Bremen University sites, amongst others, and also from the National Oceanographic and Atmospheric Administration (NOAA) in the United States.

1359. However, the newspapers do not pick up on that. As I said earlier, when a block of ice falls off the Antarctic, it makes the news as global warming. When the other 97% of the Antarctic is increasing in ice-extent, no one mentions it. A BBC-sponsored team set out on foot for the North Pole. For nearly two weeks they collected data about the team-members' core temperature: their body temperature and their heart rate. They kept the same data, day after day. They could not possibly cope with the reality that they were suffering, the equipment was breaking down and, eventually, they came home without ever reaching the North Pole. One day, it happened that a Douglas DC-3 aeroplane flew overhead. The team hoped it was food, but it was not: it was another team of 20 scientists with the latest equipment who found that the Antarctic ice was twice as thick.

1360. I have been on the ice sheet in Greenland. If you could see the extent of that ice, and how it sits, you would understand that they could not know in a millennium, and that carbon dioxide has nothing to do with global temperature.

1361. Mr Beggs: You seem very certain that carbon dioxide has nothing to do with temperature. I am looking at a graph that was contained in the journal, 'Nature: International Weekly Journal of Science'. It shows a frighteningly close correlation between CO₂ and temperature. You say that temperature follows CO₂.

1362. Do you accept that, having burnt all of the hydrocarbon since the beginning of the industrial age, man has certainly added a considerable amount of CO₂ to the atmosphere? What if you are the one who is wrong? What if CO₂ is what is driving the temperature?

1363. Mr Schreuder: If that is the case, can you explain why the earth has been cooling since 2002? You may not have noticed that.

1364. Mr Beggs: My understanding is that the scientific information points to the earth having heated.

1365. Mr Schreuder: Unfortunately, those scientists are very wrong. Every single official temperature-measuring institute, including Hadley in England, shows that temperature is going down and down and down.

1366. Mr Beggs: Do you think that we have all bought into global world domination issue?

1367. Mr Schreuder: Absolutely. That is what it is all about. Professor Will Alexander, who is doing his best in South Africa, said:

"The whole climate change issue is about to fall apart. Heads will roll."

Heads will roll, for sure.

1368. The Deputy Chairperson: Mr Schreuder, you said that 41,000 people are being kept quiet on modern technology and research.

1369. Mr Schreuder: They are not being listened to.

1370. The Deputy Chairperson: Is it not a fact that people can use technology in their own way to prove or disprove things? You said that computers cannot predict temperature accurately. Surely, modern technology is available to do tests on such issues, and we have to rely on that, whether the outcome is positive or negative for whatever side of the fence on which one sits. How do you answer that point?

1371. As Mr Ross said, none of us are scientists, unless someone has something to confess. How does one prove or disprove global warming by collecting factual evidence using modern technology? As a lay person, I have seen overwhelming evidence that global warming is happening, and you are now saying that there is overwhelming evidence to say that it is not happening. You think that it is a multimillion-pound media —

1372. Mr Schreuder: Multibillion. Yes, I do think that. My work, and the work of most of the scientists who I have quoted, is based on observation, rather than on fancy computers or on modern instrumentation. We stick to basic science, which involves observation, logical deduction and asking why things are happening and not happening. That has no need for computers or fancy equipment.

1373. The Deputy Chairperson: Mr Schreuder, to test the depth of the ice, one has to drill down or use equipment of some description.

1374. Mr Schreuder: Absolutely. That is right. I am talking about the question of carbon dioxide affecting global temperatures and the climate. Despite all of the modern equipment, there is no proof whatsoever that carbon dioxide affects global temperature and the climate. There is not one single piece of evidence for that. Everything is based on computer programmes. The only way in which scientists can tweak to produce the right result is to adjust carbon dioxide. The whole computer programme is based on a world that does not exist in reality.

1375. If you walk down the street and a cloud passes between you and the sun, how long does it take you to feel the difference in temperature? Is it instant, or does it take a minute or two minutes? I feel it instantly, because the atmosphere does not heat the earth or radiate energy towards it.

In fact, the way that the system works is that the sun heats the earth. The sun heats everything on land and sea. The only way that all materials can get rid of energy is by sending infrared radiation into the atmosphere. Some gases, such as water vapour, carbon dioxide, and methane, react to infrared radiation.

1376. The major reason why the atmosphere is warming up is that oxygen and nitrogen molecules, literally, touch and transfer convective heat. If they did not touch the earth, there would be no temperature in earth's atmosphere. The moon has no atmosphere. In sunshine, its temperature is over 100°C; in the shade, it is -150°C. There is no balancing act. Earth's atmosphere is super-precious. During the day, it acts like an air conditioner. At night, it acts like a blanket.

1377. The Deputy Chairperson: Thank you very much for your entertaining presentation. I am delighted that you did not fire a real rocket in the room. We certainly would not have been here. Thank you for your contribution, and for your patience.

1378. Mr Schreuder: You are welcome.

28 May 2009

Members present for all or part of the proceedings:

Mr Patsy McGlone (Chairperson)

Mr Roy Beggs

Mr Trevor Clarke

Mr David Ford

Mr Tommy Gallagher

Mr Alastair Ross

Mr Peter Weir

Witnesses:

Mr Neil Alldred

Mr Declan Allison

Mr Malachy Campbell Climate Change Coalition Northern Ireland

Mr Seamus Óg Gallagher

Ms Eithne McNulty

Mr Peter Archdale

Mr Malachy Campbell Council for Nature Conservation and the Countryside

Mr Patrick Casement

1379. The Chairperson (Mr McGlone): The Committee will today hear evidence from the Climate Change Coalition Northern Ireland (CCNI) and then from the Council for Nature Conservation and the Countryside (CNCC). The Climate Change Coalition comprises a wide range of environmental and development groups, all of which wish to see Northern Ireland play its full role in combating global climate change. The coalition's goals are to raise awareness of climate change and to change behaviours and public policies to deliver local and global benefits.

1380. From the Climate Change Coalition, we have with us Mr Neil Alldred, who is the director of the international development programme at the University of Ulster's UNESCO Centre; Mr Malachy Campbell, who is the policy director at the World Wildlife Fund Northern Ireland; Mr Declan Allison from Friends of the Earth; Mr Seamus Óg Gallagher, who is the policy officer at Northern Ireland Environment Link; and Ms Eithne McNulty, who is the regional manager of Trócaire. You are all very welcome. As you are probably aware, the Committee's inquiry into climate change is proving to be very interesting. The Committee is delighted to have you all with us today.

1381. The Committee has already received your submission. You have 10 to 15 minutes at most in which to give us an overview of your position, and we will then take questions from Committee members.

1382. I thank you again for appearing before the Committee. Yours is a very representative group, and I am aware that many of you carry out very valuable work, in all fields.

1383. Mr Neil Alldred (Climate Change Coalition Northern Ireland): As chairperson of the coalition, I thank the Committee for affording us the opportunity to appear before it. I should begin by informing the Committee that the Climate Change Coalition Northern Ireland has formally changed its name to Stop Climate Chaos Northern Ireland (SCNI). That is because we work collaboratively with Stop Climate Chaos in Ireland and the rest of the UK.

1384. Eithne McNulty and I will go through some of the main terms of reference of the Committee's inquiry, in an attempt to offer our submission in a structured manner.

1385. Ms Eithne McNulty (Climate Change Coalition Northern Ireland): Stop Climate Chaos Northern Ireland comprises a wide range of environmental and development groups, who all wish Northern Ireland to play a full role in combating global climate change. That goal is, of course, also the Committee's. SCCNI believes that strong moral, ethical, economic, social and environmental imperatives exist for Northern Ireland to contribute its fair share of global emissions cuts to combat global climate change. Those imperatives are very important to our group.

1386. The Assembly's priority should be to introduce a Northern Ireland climate change Bill, with a legally binding regional target to reduce carbon-dioxide emissions here by 80% from 1990 levels by 2050. Those are not new statistics, but they are important, and we will refer to them again during our submission. We also ask that the Assembly support the international negotiation process for global warming to peak at no more than 2°C above pre-industrial levels. The Committee will again be familiar with that statistic, but it is, nonetheless, very important.

1387. Our third and final ask is that the Assembly assist the poorest countries and improve biodiversity, in Northern Ireland and in countries around the world, to adapt to the unavoidable effects of climate change. The poorest countries are, of course, hardest hit, and they are already trying to adapt to the effects of climate change.

1388. I shall now respond directly to the inquiry's terms of reference. Term of reference (a) states:

"To identify the initial commitments for Northern Ireland that will ensure it plays a fair and proportionate role as part of the UK in meeting climate change targets."

1389. We are aware that the Assembly has accepted that the provisions of the UK Climate Change Act 2008 will be extended to Northern Ireland. However, the UK Act does not set specific, legally binding targets for the devolved Administrations to reduce emissions; therefore, setting those targets is the Assembly's concern. Setting specific Northern Ireland targets will ensure that we make a fair contribution to emissions reduction, and it will also enable Northern Ireland to benefit from the social, economic and environmental gains of a move to a low-carbon economy — a move that is a worldwide effort.

1390. Northern Ireland's per capita emissions are 12.83 tons per annum. Therefore, we compare badly with the UK average of around 10.5 tons per annum, the global average of four tons per annum and the global fair-share average of 1.65 tons per annum. That is why we refer to the problem in moral, economic, social and ethical terms, and if we are to be ethical, we must reach a level of 1.65 tons per annum. Realistically, Northern Ireland should at least match the UK targets and that is why the Executive and Assembly must urgently make a commitment to introduce a Northern Ireland climate change Bill, with legally binding regional targets, matching those in the UK Act.

1391. We advise that the interim target of 34% by 2020, rising to 42%, should be adopted. The Executive must prioritise action on climate change as they develop a Northern Ireland Bill. For instance, the money that the Chancellor identified for energy efficiency and renewable-energy measures in this year's Budget should be used for the same purposes in Northern Ireland, and it should not simply find its way into the block grant and disappear. New policies that are being developed should be used to deliver action on climate change.

1392. Furthermore, the review of public administration (RPA) process should be used to introduce a statutory duty on new councils to make a significant contribution to achieving emission-reduction targets.

1393. Mr Alldred: Term of reference (b) states:

"To consider the necessary actions and a route map for each significant sector in Northern Ireland".

1394. The Committee on Climate Change's first report, 'Building a low-carbon economy — the UK's contribution to tackling climate change', which was published in December 2008, includes an analysis of what opportunities exist for making emissions reductions in Northern Ireland. However, those actions will not help Northern Ireland to achieve the important target of reducing emissions by 80% by 2050. Therefore, we need to go beyond that, and we need to engage more strongly with the UK's Committee on Climate Change. That Committee has a number of obligations, and, in our submission, we quote from sections 34(1) and 38(3) of the Climate Change Act, which states that the Committee is obliged to offer information, advice and support to help to determine priorities and actions that are required to achieve the overall targets. That is extremely important.

1395. Although support exists to help to identify significant sectors and the extent to which each sector can assist in achieving a contribution to the 80% and 34% targets, sectors and businesses will be able to deliver only if the targets form a part of an overall package in which the whole of Northern Ireland plc engages. We cannot look to key sectors to make extraordinary contributions. Everyone must play a part in that, and I hope that the Committee will address that as part of a Northern Ireland climate change Bill. While a Northern Ireland climate change Bill is taking shape, interim measures can be taken. The procurement strategy, procurement budgets, energy efficiency and rapid deployment of renewable-energy options exist, and they can be entered into now, while the Assembly is pursuing a Northern Ireland climate change Bill. Energy efficiency and procurement could be important areas to identify.

1396. Term of reference (c) states:

"To identify the costs associated with meeting these obligations and compare them with the costs that will be incurred if they are not achieved."

1397. In our submission, we reference, among others, the Carbon Trust, the Northern Ireland Green New Deal Group, the UK Committee on Climate Change and the Stern Review. We will leave those details with you, but I will headline the figures. The Stern Review made the point last year that if we all invest now in order to avoid some of those difficulties, costs of only 1% to 2% of GDP will be incurred, whereas, if we leave investing to a later date, we could expend between 5% and 20% of GDP. Therefore, the evidence is there, and I am sure that the Committee is familiar with it. In our submission, we try to repeat the evidence from many different specialists in the UK and Ireland.

1398. Term of reference (d) states:

"To identify a formal cost effective mechanism for assessing the potential impact of new policies on climate change/CO2 emissions."

1399. The coalition believes that all plans, programmes and policies should be assessed using climate impact assessments to determine their contribution to, or impact on, achieving carbon budgets. In Northern Ireland, we are familiar with the equality obligations for rural proofing.

Many mechanisms exist for ensuring that prior assessments and ex post facto monitoring take place, and we urge the Committee to take due cognisance of those mechanisms.

1400. Term of reference (e) states:

"To make recommendations for appropriate targets/actions that could be included in the new Northern Ireland Sustainable Development Implementation Plan."

1401. The key climate targets that the sustainable development strategy should deliver would be, and must be, those that are identified in a Northern Ireland climate change Bill. There should not be any separation. The sustainable development strategy here should include as its targets those already identified — and, I hope, enshrined — in a Northern Ireland climate change Bill.

1402. Northern Ireland should at least match the targets set by the EU for the UK to generate 15% of its energy from renewable resources by 2020. That target is challenging but certainly achievable. The 2008 all-island grid study found that up to 42% of power generation could be from renewable resources in Ireland — a figure that Stop Climate Chaos Northern Ireland regards as the most appropriate target for 2020. The sustainable development strategy should also help to deliver the recommendations on how to achieve any emissions reductions that the Committee for the Environment's report on its inquiry into climate change proposes.

1403. Term of reference (f) states:

"To make recommendations on a public service agreement for the DOE Climate Change Unit's commitments in the second Programme for Government".

1404. We respectfully draw to the Committee's attention that the climate change unit in the Department of the Environment (DOE) does not have a mandate across the whole of Government. It has certain restrictions. For example, the Department of Finance and Personnel (DFP) is responsible for building; the Department for Regional Development (DRD) is responsible for transport; and the Department of Agriculture and Rural Development (DARD) for bioenergy policy. We humbly suggest that the example of the Department of Energy and Climate Change (DECC) in the UK, which does have a governance model that is capable of addressing all UK Departments, may be a useful way forward for Northern Ireland, should consideration be given to expanding the remit of the DOE's climate change unit.

1405. Term of reference (g) states:

"To consider what secondary legislation raising powers within the UK Climate Change Act would contribute to Northern Ireland's commitment to the UK Climate Change Bill."

1406. We feel that, although possibilities exist with trading-scheme powers and carrier-bag taxation, the primary focus of the Committee and of the Assembly should eventually be to look to introducing primary legislation in the Assembly. We do not consider the secondary-legislation objectives of the UK Climate Change Act to be sufficient to help Northern Ireland to define its own priorities. We urge you to look at the possibility of primary legislation to effect your own targets.

1407. Term of reference (h) states:

"To express views on if and how the Assembly might conduct more effective scrutiny of climate change responsibilities across all relevant departments."

1408. We feel that the ability of the Committees, and the Assembly as a whole, to scrutinise progress would be greatly enhanced by ensuring that the Committee report to the Executive and the Assembly, and that the Executive respond to the Committee's report in the Assembly.

1409. Ms McNulty: Term of reference (i) states:

"To produce a report on the findings and recommendations of the inquiry by September 2009."

1410. Stop Climate Chaos Northern Ireland hopes that the Committee for the Environment will recommend the introduction of a Northern Ireland climate change Bill that has a legally binding regional target to reduce our CO₂ emissions by at least 80% from 1990 levels by 2050, and an interim target of at least a 34% reduction by 2020.

1411. That is repetitious, but it is the main ask. Those percentages, of course, match the targets in the UK Climate Change Act, and the expected targets in the Republic of Ireland Climate Protection Bill 2007. Those are the minimum requirements for us to play our part in the global attempt to avoid dangerous climate change.

1412. The Chairperson: Thank you very much for that concise presentation. It comprehensively covered all the issues, many of which have already been raised with the Committee.

1413. Mr Weir: I welcome our guests, and, like the Chairperson, I appreciate the way in which the presentation was structured to deal with each of the inquiry's terms of reference separately, which made it easy to follow.

1414. You spoke of your concern at the money identified's not going purely into the block grant. I suppose that that is, effectively, a Barnett consequential. How much do you understand has been allocated this year on that basis?

1415. Mr Seamus Óg Gallagher (Climate Change Coalition Northern Ireland): Would you like to ask another question, and we can return to that?

1416. Mr Weir: Take a wee minute or two to gather your thoughts. You say that the Committee on Climate Change report identified that Northern Ireland could reduce its emissions by around 2.5 million tons of CO₂. I have made a quick calculation, and my figures may be wrong, but when you speak of the per capita figure, you imply overall CO₂ emissions from Northern Ireland of around 21 million tons. Is that correct?

1417. Mr Declan Allison (Climate Change Coalition Northern Ireland): It is around 22 million tons.

1418. Mr Weir: If 2.5 million tons can be dealt with through the methodology outlined, that would amount to a reduction of around 11% or 12%. If a 34% cut is to be made by 2020, that still leaves a large gap to be filled. What are your views on how we can bridge that gap practically?

1419. Mr Malachy Campbell (Climate Change Coalition Northern Ireland): The figures come from AEA Technology, which reviews the greenhouse-gas emissions for the entire UK. Northern Ireland produces 16.5 million tons of carbon dioxide, so the percentage overall is likely to be higher. One of the important issues is energy efficiency —

1420. Mr Weir: May I stop you there? You said that Northern Ireland produces 16.5 million tons of carbon dioxide, yet a minute ago we spoke of 22 million tons. What is the correct figure?

1421. Mr M Campbell: I am citing AEA Technology's figures, which give an overall figure for the UK. The figures are then disaggregated for England, Scotland, Wales and Northern Ireland.

1422. Mr Weir: I appreciate that. However, you have just cited 16.5 million tons, yet Mr Allison cited a figure of 22 million tons.

1423. Mr Allison: There are different methodologies for measuring carbon emissions.

1424. Mr M Campbell: Were the figure to be in and around 16 million or 17 million tons, the percentage saving is obviously higher. An important issue is the role of energy efficiency. You may be familiar with the Carbon Trust, which works with businesses. It says that at least 30% of energy, and potentially up to 50%, is wasted. That means that savings of that magnitude could be made by using existing technologies, at basically no cost, and almost immediately, if we reduced our absolute consumption of energy.

1425. Therefore, some of the savings will be made through reducing our absolute consumption, and some will be made through going down different technological avenues; for example, in transport or through using different means of generating heat and power rather than just relying on electricity. There is a number of options.

1426. Mr Weir: You outlined energy-efficiency options. One of the problems will be disagreement over what the figures are, as I highlighted. Depending on how one aggregates the figures, Northern Ireland's carbon emissions total 16 million or 17 million tons or else 22 million tons. If it were 16 million or 17 million tons, that would put us below the average UK per capita figure, whereas 22 million tons would put us above it. On the energy-efficiency side, you mention new technologies and efficiencies to be made in fuel. Are those not the 2.5 million tons that are already identified? There still seems to be a gap.

1427. Mr M Campbell: There is something about which I am unclear. We spoke of per capita emissions earlier. That is the amount of carbon that each one of us, as an individual and on average, emits.

1428. Mr Weir: When we spoke of per capita emissions, a figure of 12.83 tons and the UK average of 10.5 tons were mentioned. What I am saying is that a per capita figure of 12.83 tons equates to an overall figure of 22 million tons of carbon emitted, yet if the overall figure is 16 million or 17 million tons, Northern Ireland per capita emissions are probably slightly lower than the UK average.

1429. Mr S Gallagher: The figure of 12.83 tons is taken from DOE's own assessment made of January 2009, 'Northern Ireland Environmental Statistics Report', so it is the official Northern Ireland position.

1430. Mr Weir: It agrees with the aggregated figure of 22 million tons rather than that of 16 million or 17 million tons.

1431. Mr S Gallagher: This is after the process that Arlene Foster —

1432. Mr Weir: With respect, you say that, but I see another witness shaking his head. One of the two figures is accurate, but both cannot be accurate. We cannot have a situation in which, if it were only 16 million or 17 million tons, the per capita figure is just under 10 tons.

1433. The Chairperson: May we get to the point?

1434. Mr Weir: I am confused. If we are to consider what needs to be cut, we need to have a clear understanding of what the base figure is. There is a gap between an aggregation that says that the figure is 16 million or 17 million tons or else 22 million tons.

1435. On the delivery side, a cut of 2.5 million tons has been mentioned. If that figure is to meet the 34% reduction or the 42% reduction, much more will have to be done than a cut of 2.5 million tons. I am trying to work out what additional actions should be taken to get beyond what has already been identified.

1436. Mr S Gallagher: I shall return to the first part of your question. I will not attempt to provide the exact figures that were outlined in the Budget, but the ballpark figure is £400 million, which was identified in the Budget for energy-efficiency measures in the UK as a whole. Some £550 million was identified for renewable-energy schemes, which, I presume, are similar to our environment and renewable energy fund. That will go into micro-generation, district heating schemes, and so on.

1437. Further money — somewhere in the region of £575 million — was put towards offshore wind-farm development. How that is disaggregated for the Northern Ireland block —

1438. Mr Weir: Roughly speaking, the figure is about £1.5 billion. Is that right?

1439. Mr S Gallagher: Yes. The Government are trying to lever more money from the European Central Bank to put more money into the pot. As the Committee will be aware, it is difficult to find pure, ultimate figures in the Budget and to determine how many have been recycled from previous statements. The overall package of measures for the green element of the recovery process may go as high as £4 billion or £5 billion in the UK.

1440. Mr Weir: Obtaining that figure may be useful. I suspect that the Department of Finance and Personnel may have it. It may be useful for us to find out what the Barnett consequentials of that are; that is, what would be coming to Northern Ireland directly.

1441. Mr S Gallagher: We wanted to make the point that money is being set aside in the UK. We need to make a commitment to use that money in a similar way to start trying to tackle the problem. We need to show a little bit of leadership and say that we understand that reducing CO2 emissions is an important issue in which we are willing to invest. We need to use that money. Declan will say more about the returns on that investment.

1442. Mr Weir: I understand that, but we need to identify what we are getting. If one of the ideas is somehow to ring-fence that money, we need to know what the figures are.

1443. Mr S Gallagher: Yes; absolutely.

1444. On your other point, Arlene Foster, when she was Minister of the Environment, highlighted that different accounting measures were being used and that it was quite difficult to find out what Northern Ireland's emissions were at that point. The figures that we are quoting were produced by the Department of the Environment. The figure of 12.83 tons per annum is the DOE's official figure for Northern Ireland.

1445. Mr Weir: How did we get the figure of 22 million tonnes?

1446. Mr S Gallagher: That is obtained by multiplying 12.83 tons by the population figure of 1.77 million.

1447. Mr Weir: Therefore, by definition, if you multiply the two, that gives a figure of around 22 million tons. It is simple mathematics.

1448. Mr Beggs: Could we not have correspondence on that?

1449. Mr Weir: You mentioned the "spend now" idea that came from the Stern Review and other bodies; that is, invest for the future. You also said that the effect on the economy would be less than 1% of GDP. Do you have any estimate of what impact that would have, what money needs to be spent from the Northern Ireland block grant, or what the cost would be to Northern Ireland in actual terms?

1450. Mr Alldred: We do not offer specifics on that in our submission, but we draw evidence from the Northern Ireland context, because the Stern Review was considering the entire UK. The Carbon Trust's research states that if Northern Ireland adopts the UK's renewable-energy target of having 15% of all energy produced by renewables by 2020, that should lead to the creation of 33,000-odd extra jobs. According to Northern Ireland Green New Deal Group, a proper spend on high levels of insulation will produce a return. We accept that a cost will be incurred now.

1451. Mr Weir: We appreciate that, for anything that involves additional energy-efficiency savings, there will be a degree of payback in the long run, but it is important to get a grasp of initial outlay costs as well.

1452. Mr Allison: As part of the Green New Deal Group, we are doing some work on housing, public and commercial buildings, transport and innovative industries. We are preparing the document on housing at present and have not got on to the others yet. When the documents are ready, we will be very happy to present them to the Committee.

1453. On housing, however, we estimate around £330 million will be needed to retrofit 30,000 homes a year, up to a total of around 600,000 homes. That is the estimate, given the current energy —

1454. Mr Weir: Did you say £330 million a year?

1455. Mr Allison: Yes.

1456. The Chairperson: Do you mean newbuild homes?

1457. Mr Allison: No.

1458. Mr Weir: It is pre-existing homes, is that right?

1459. Mr Allison: Yes. Retrofitting existing homes is where the greatest energy-efficiency gains can be made. It would be fairly simple to improve building regulations so that all new homes would be —

1460. Mr Weir: That outlay relates purely to housing. You are looking at other aspects, but your documents are probably at too early a stage to put figures on.

1461. Mr Allison: Yes; that is correct.

1462. Mr Ross: In your written submission, you say that the Assembly should assist the poorest countries. What do you mean by that? Do you mean financial assistance? If so, I imagine that Westminster would play the primary role.

1463. Ms McNulty: We are a global society, so what we do by way of mitigation here will have a spin-off for the poorest countries. That is why we refer to cutting emissions as having an ethical and moral side to it. I urge the Committee to adopt a set of principles that refers to the ethics and morality of the argument, because the more CO2 that we emit here, the greater the impact in the developing world.

1464. I visited Mozambique last year to look at the impact of climate change on the poorest communities in the southern area of that country, where flooding has a real impact. Sea levels are rising owing to climate change. The Save River flows from Zimbabwe into Mozambique and floods at the point where it reaches the Indian Ocean. The communities living in that usually fertile valley have been displaced by flooding in 2000, 2003, 2007 and 2008. That is the real impact of climate change. We are causing CO2 emissions, but it is the people of the developing world who are feeling the greatest effects of that. That is why we argue strongly that the Committee must have a developing-world emphasis in its thinking when dealing with the issues.

1465. Mr Alldred: We are not seeking financial contributions, and we recognise that international development is not a remit of the Assembly, but we think that if it informs —

1466. Mr Ross: What you mean is that the Assembly should be setting an example.

1467. Mr Alldred: Yes. If the Assembly takes a fair-trade perspective and adopts an ethical procurement policy, for example, that can contribute substantially. We urge the Committee to keep those issues in mind.

1468. Mr Ross:

1469. In your submission, where you state that the people of Northern Ireland are asking for leadership from the Assembly, you go on to say:

"92% of respondents were willing to make changes to their lifestyles".

Who was sampled for that? Whom did you ask? Was it random sampling?

1470. The Chairperson: I ask that one person respond, please. We are conscious of time, which is limited.

1471. Mr S Gallagher: The research was conducted by Sustainable Northern Ireland on behalf of the Northern Ireland climate-impacts programme, and it was externally verified by the Northern Ireland Statistics and Research Agency (NISRA). The survey took in a proper cross-section of people and was of a sample size to be statistically valid in Northern Ireland.

1472. Mr Ross: What did you ask? If people are asked whether they are willing to make lifestyle changes, they will say yes. Did you define those lifestyle changes? The Committee has heard in recent weeks about the types of lifestyle changes that are being espoused. When people are told that by saving energy they will save the environment and save themselves money, they will say, "Absolutely, because that will benefit me." However, when talking about some of the radical lifestyle changes that we have heard about over the past weeks, people may not say yes. When you ask people about lifestyle changes, are you telling them what those changes will be or is the question asked in a more general fashion?

1473. Mr S Gallagher: The survey asked a number of questions in context, such as: If the Assembly showed leadership, what actions would people be most likely to take? Of course,

people will choose those actions that have the least impact on their lifestyle, but it demonstrates a willingness to move.

1474. However, people will not move unless leadership is shown right across Northern Ireland. Some people on the ground are already doing their bit as much as they can, but much more of an incentive from Government is needed to create a mass movement. Government need to clarify the direction in which they want to go.

1475. Mr Ross: You said, "an incentive from Government". Do you mean that people should be incentivised to change their lifestyles, or do you mean that Government should use a big stick to make people change? Is that what you mean by leadership?

1476. Mr Alldred: No, Government have a huge range of tools at their disposal. The public can be educated or can be financially incentivised, but the Government can also exhort, encourage and show leadership. They can be exemplary, or otherwise. We suggest that there is a groundswell of opinion from thousands of members from many of the organisations that we represent. We get the impression that there are very strong movements in the Churches in the different communities across Northern Ireland. A huge number of people is ready to make some kind of sacrifice, as are businesses. If Government set the framework and the pattern through which people can contribute, people will want to contribute. We are all looking to politicians to offer us moral and practical, hard-headed leadership.

1477. Mr Ford: Thank you for your presentation, particularly the helpful way in which it was set out today. You specifically referred to the need for a Northern Ireland climate change Bill. I want to explore what would be contained in such a Bill. You said that regional targets for the devolved Administrations are not contained in the UK Act. You also talked about intermediate targets and five-year budgeting. I presume that you consider all those being included in any legislation. However, what about issues such as climate impact assessments and procurement policies? Do you foresee a Northern Ireland climate change Bill as being widely encompassing?

1478. Mr S Gallagher: The Bill should provide an overall framework through which all our efforts can be focused. It should include a continuation of what is in the UK Act; outline the powers of the Committee on Climate Change; how we receive its advice; how we respond to that; and how that advice sets out a framework for the Government. It might also outline some further areas of secondary legislation in which there are particular advantages in Northern Ireland's pursuing.

1479. In addition, the Bill should probably contain requirements for each Department to outline — using an official reporting mechanism — how it will contribute to the climate-change targets. Any legislation needs to be all-encompassing, although that does not mean that every element has to be dictated in fine detail. The UK Act is quite detailed, but it is not a very large piece of legislation compared with some others.

1480. Mr Ford: Related to that, your written submission referred to the Committee for the Environment's sharing its responsibility for scrutiny across the range of Departments. I am not sure how much you have heard about other people's submissions on the likes of, for example, the Westminster Environmental Audit Committee, but, given the structures of government that we have here, I am not quite sure how that scrutiny could be centrally co-ordinated. You seem to highlight that that level of scrutiny is needed, but do you have any further verbal suggestions?

1481. Mr S Gallagher: First and foremost, the role of the Committee on Climate Change is vital. Internationally respected experts have analysed the potential of our economy to make savings and have given us recommendations, so we must treat those recommendations very seriously. The mechanism by which Departments respond to those recommendations should be debated fully in the Assembly so that the issue receives the cross-cutting scrutiny that it deserves.

1482. The Department of the Environment has limited powers in areas such as building regulations and bioenergy policy, so we suggest that there may be good reason to consider — in the wider talk that is taking place on departmental restructuring — an energy and climate change Department and, thus, a Committee that would have oversight of a climate change Bill. That might help to provide cross-cutting oversight.

1483. Mr Ford: Would that still be on the basis of one Committee's relating to one Department, as opposed to the Scottish model?

1484. Mr S Gallagher: We suggested that the responsibility for delivering the targets could be shared across the Executive so that every Committee would have a role in overseeing what its Department does. However, a special public-service agreement would be given to the central climate change Department to have an oversight role. Thus, that Department's Committee would have an oversight role for the entire Assembly.

1485. Mr Beggs: Thank you for your submission and presentation. My first question concerns the Department of Energy and Climate Change in England. You said that establishing a similar model here could improve cohesion and integration, and you highlighted the present fragmentation here. You did not mention the Office of the First Minister and deputy First Minister (OFMDFM), which has the remit for sustainable development. Where should it fit into your model?

1486. Mr S Gallagher: The coalition has not discussed OFMDFM's role in detail. The relationship between sustainable development and climate change is vital. If a new sustainable-development strategy includes tough targets on climate change, and if we start to act on the Programme for Government targets to reduce CO₂ emissions by 2025, we will be moving in the right direction. I do not feel comfortable enough saying —

1487. The Chairperson: If you discuss that matter relatively soon, and before our inquiry ends, you should submit that information to the Committee.

1488. Mr Beggs: That leads on to my next line of questioning. Which targets are more important: the 2020 targets or the 2050 targets? The 2050 target is too far in the distance. It is 40 years hence, and few of the decision-makers will be around to be answerable for their decisions. Therefore, do you concur that a 2020 target may be more important and significant in bringing about change?

1489. Mr Alldred: The coalition is absolutely united in the view that we need to set a framework but have milestones in that time period. The UK and other countries have selected the 2050 target as the major target, and, therefore, we are happy to support that approach. However, it is vital to attempt to meet the 2020 target.

1490. Our submission suggests that if progress is made towards a consensus at the Copenhagen meeting in December, the 34% target for 2020 will increase to 42%. Therefore, we are keen on the intermediate targets. Moreover, we have made submissions to the effect that we want milestones, not only at 2020 but at other points. We are keen to ensure that the plans do not become an amorphous aspiration in a long-term future. We agree that the strategy must be practical and be not too far in the future.

1491. Mr Allison: The trajectory, and how we reach the target, is more important than the end point. We must monitor the total amount of carbon that is emitted in the meantime. Therefore, it is vital to have a clear trajectory on which to reach the target rather than an end point only.

1492. Mr Beggs: Your submission says that you expect targets to be set in the Republic of Ireland climate protection Bill 2007. Can you update the Committee on that legislation's

progress? It is vague to say that you expect targets to be met. We can, of course, distort the market by having significantly different targets in different areas. Therefore, it is an important matter, on which I want to hear your views. Given electricity generation, the grid for the area and the single-pricing mechanism that has been introduced, do you agree that it is important not to distort the environmental aspects of electricity generation by having significantly different policies in the two jurisdictions?

1493. Mr Allison: The climate protection Bill is still in its early days. However, the Minister for the Environment, Heritage and Local Government has stated his support for it, but the targets have yet to be decided. I cannot say very much more about the matter.

1494. Mr Beggs: Do you agree that, if the proposals on either side of the border are not similar, potential exists for less environmentally friendly electricity generation as a result of a distorted market?

1495. Mr S Gallagher: I believe that to be correct, and that is why the Republic's decision to take the climate protection Act route is reassuring. Its Minister for Communications, Energy and Natural Resources, Eamon Ryan, recently made more ambitious statements than ours on the proportion of renewable energy that the Republic hopes to generate. Therefore, the Republic hopes to follow the same path as us. As well as that, the all-island grid study was a collaborative project. If that leadership and direction continues, the single energy market will not be distorted on the island.

1496. Mr T Gallagher: I thank you for your helpful presentations on important subjects to which you are very committed. However, from reading your submission, I am unsure as to whether you feel that the introduction of trading schemes and of methods to reduce the use of plastic bags are worth the bother. Will you clarify those two aspects of your presentation?

1497. Ms McNulty: It is worth bothering to tackle the issue of plastic-bag usage because, as our submission suggests, although it may not do much to reduce CO₂ emissions, it raises awareness among the public and gets them to question whether a disposable bag is needed for every purchase.

1498. Therefore, the concepts of CO₂-emission reduction, green energy, care for the environment and the impact on the developing world are brought much more into the public perception. That makes the Committee's leadership role in introducing a Bill of the type that we seek, because to do so requires a positive response from the public in the North of Ireland. Beginning that process with a relatively simple initiative on plastic bags prepares the ground by making the Northern Irish public more receptive.

1499. Mr T Gallagher: What is your stance on trading schemes?

1500. Mr S Gallagher: Trading schemes are administratively very difficult to initiate. I believe that Northern Ireland's economy is too small to do that, so it would have to be done in collaboration with the rest of the UK, and perhaps even with the rest of Europe.

1501. We know that a cap-on-trade scheme will be among solutions that will be presented at the Copenhagen negotiations at the end of the year. Again, we think that trading schemes, properly managed, have a big role to play. There must be no grandfathering — a system that grants carbon credits to the current most polluting activities. Instead, there must be an auction that ensures a fall in total carbon emissions year on year, which will achieve results. However, trading schemes are very complicated to run. I am not ruling them out completely — advice would be needed from the Committee on Climate Change — but they are not the correct method to target and deliver fast and reliable action in Northern Ireland at this stage.

1502. The Chairperson: I thank the witnesses for their evidence and compliment them on the clarity of their easily read and succinct written submission, which is what the Committee often requires.

1503. I am mindful of the fact that the Committee meeting must finish before 1.00 pm, so the Committee will move on to hearing oral evidence from the Council for Nature, Conservation and the Countryside (CNCC), which was established under the Nature Conservation and Amenity Lands (Amendment) (Northern Ireland) Order 1989. The council's statutory role is provided for in the Environment (Northern Ireland) Order 2002. A summary of the CNCC submission, along with comments from the specialist adviser, has been provided to Committee members.

1504. The Committee has with it Mr Patrick Casement, chairperson of the CNCC, and his deputy chairperson, Mr Peter Archdale. Both are very welcome. Mr Malachy Campbell has joined them after a quick change of hats. I am sorry to inform the witnesses that the Committee is under time pressures, because the Senate is required for use by others. Please give us an overview of your submission, after which members will put a few questions to you.

1505. On behalf of the Committee, I extend an invitation to make another presentation to the Committee some time in the future. That would be most welcome, because the Committee has heard much about the council and its role. We wish to hear more from you about your role, so I trust that you will welcome my invitation on behalf of the Committee.

1506. Mr Patrick Casement (Council for Nature, Conservation and the Countryside): Thank you, Chairman, and thank you for the invitation to give evidence today. The CNCC is a statutory advisory council to the Department of the Environment. It provides advice on nature conservation and countryside matters, and it is a statutory consultee on the designation of national nature reserves, areas of special scientific interest (ASSIs), areas of outstanding natural beauty and national parks, as well as on matters relating to the Wildlife (Northern Ireland) Order 1985 and natural-heritage grants. In addition, it provides advice on a wide range of other subjects, including biodiversity, access to the countryside, planning issues and renewable energy.

1507. As you said, Chairperson, I am the council's chairperson and Peter Archdale is its deputy chairperson. We are the only members of the council who are remunerated in any way. The other 18 members are volunteers, and, among them, they have a wide range of expertise and experience, and come from an enormous number of backgrounds.

1508. I shall briefly summarise the evidence in our submission, being careful not to submerge members in a blizzard of figures. First, we are convinced that climate change is taking place. Moreover, we believe that the pace of change is faster than has been predicted up until now, and many positive feedback mechanisms are producing effects that feed into that vein.

1509. We believe that climate change is largely as a result of man's behaviour and the production of greenhouse gases. In order to combat it, the EU and the UK have set targets to prevent temperature rises of more than 2°C above the approximate levels that existed in 1750.

1510. The predicted effects of climate change include: a rise in sea levels, which will affect the coastline, infrastructure, property, agriculture and natural habitats; drier, hotter summers and wetter, milder winters, which will have major effects on water supply, agriculture, carbon storage, and freshwater habitats; more severe rainfall events, which will lead to flooding problems and other matters that must be addressed for buildings; and more storms, which will lead to sea surges and to damage to property and woodland. A wide range of severe problems will affect every aspect of our lives.

1511. There is an overwhelming need to mitigate climate change, and we fear that the cost of inaction may be many times greater than that of tackling the causes. To start to reduce our CO2 emissions, we must shift to using more renewable energy, consider generating more energy locally and utilise low-carbon technologies. In a minute, I shall ask Malachy Campbell to say more on that subject. We must integrate policies throughout Government, and we need a much greater degree of strategic planning. Coastal retreat is one such issue, because we have no plans for where we will allow the sea to encroach to, or for where we will make a stand and attempt to stop it. Therefore, we must consider that matter much more strategically.

1512. Climate change has serious implications for biodiversity. Some people may say, "So what?", but the natural environment is important because it provides a wide range of vital environmental services. I shall ask Peter Archdale to say a few words on that subject. On biodiversity and natural habitats, we must make immediate progress with adaptation. We need to take practical action now to increase ecological resilience and to accommodate change. In other words, in places, we may have to allow the sea to encroach. We need to take integrated action through partnerships, and, again, we need strategic planning that is based on sound knowledge.

1513. Peter Archdale will now say a few words about the environmental services natural habitats and biodiversity provide.

1514. Mr Peter Archdale (Council for Nature Conservation and the Countryside): I expect that every Committee member's constituency contains at least one area of either blanket or raised bog. One point that is not often made about peat bogs is that a significant part of Europe's bogland is in Ireland. One hears much about the ability of trees to capture carbon, but a recent survey led by Roy Tomlinson at Queen's University estimated, based on a direct comparison, that 47 times more carbon is locked up in peat bogs than in all the agricultural land, forestry and soils in Northern Ireland.

1515. Patrick mentioned biodiversity, and peat bogs form largely from sphagnum moss. The peat bogs are frequently damaged unintentionally, or intentionally, when they are reclaimed for agriculture without consideration's being given to the full use of the wetland or upland areas. For example, when there are extreme weather events, such as took place last summer, the bogs absorb much of the water and prevent flash floods. The landscape has been extensively modified without considering where the boundaries of the bogs occur.

1516. Broadly speaking, an area that is beginning to be better understood is land-use policy, as are other issues that we mentioned in our paper, such as managed retreat. Those issues must be faced. We must consider not only the short term and the narrow impact. Some issues can have extremely broad, deep impacts that are still not fully appreciated, either by the decision-makers in Government or the people who live in the area concerned. The ability to look at the big picture is important when considering the issue as a whole.

1517. The Chairperson: What do you mean when you say that 47 times more carbon is locked up in peat? I do not understand that point.

1518. Mr Archdale: I had a problem when I read the numbers because the units referred to are gigatons. "Giga" probably comes from gigantic, and it is an awful lot. What we are really talking about is the amount of carbon. Therefore, when it is possible to calculate —

1519. The Chairperson: What does that mean in practical terms?

1520. Mr Archdale: One can calculate how much carbon, which originally came from the air, is locked up in agricultural land, forests, and so forth, and come up with a number. Do not quote

me on this, but, from memory, that number is approximately 200 gigatons. That number does not mean anything to me. However, the number that has been calculated in the same way for blanket and peat bogs is 47 times greater, so that is the comparison. In other words, 47 times more carbon is locked up in peat than everywhere else in Northern Ireland. Does that help?

1521. Mr Casement: To put that into context, Wallington estate in the north-east of England covers 13,500 acres, of which approximately 3,000 acres are peatland. More carbon is locked up in those 3,000 acres than is produced annually by the entire population of north-east England, which comprises the combined conurbations of Newcastle-upon-Tyne, Sunderland and Middlesbrough. A vast amount of carbon is locked up in peatland in one small area of Northumberland.

1522. The Chairperson: As an ordinary person who is trying to understand what that means, does the point that you are making concern what would happen if that peat were extracted and burned?

1523. Mr Casement: If that happened, all that carbon would enter the atmosphere. It would contribute to the greenhouse effect.

1524. Mr Archdale: Moreover, when drained, peat is no longer saturated, and it subsequently oxidises. We see that in areas of the Sperrins, for example, where it is well known.

1525. Mr Casement: If drained or exposed to the air in any way, peat starts to oxidise and emit carbon dioxide. That is one of the concerns about having drier, warmer summers.

1526. The Chairperson: I may be about to ask you a question to which you do not know the answer. Let me know if that is the case, and the Committee will find the answer elsewhere.

1527. Is 47 times more carbon released when peat is burnt than when it is drained? You may not know. We can find out whether that is the case.

1528. Mr Casement: No. The figure is exactly the same whether it is drained and released slowly or picked up and burnt. It is simply released more slowly, whereas burning releases it quickly. Draining it or exposing it to the air means that it will disappear gradually over a few years.

1529. Mr Malachy Campbell (Council for Nature Conservation and the Countryside): An additional consideration for peat bogs, apart from carbon storage, is that if they are destroyed, dug up, burnt or whatever, methane is likely to be released. That is a problem, particularly in places such as Siberia, where there are huge tracts of boggy land. The global-warming potential of methane gas is 23 times that of carbon dioxide, which means that one ton of methane has the same warming potential as 23 tons of carbon dioxide. That additional factor makes preservation of peat bogs even more important.

1530. Mr Casement: The business of permafrost areas that might melt is one of the positive-feedback mechanisms that probably lead to a more rapid rise in temperatures than we had originally anticipated. I will ask Malachy to say a few words on green technologies.

1531. Mr M Campbell: I will try to be brief. For the record, all members of the CNCC are independent. Anything that I say is my own personal view and, I hope, reflects those of the CNCC. It has nothing to do with any other function or role that I perform.

1532. Another issue about the move to a low-carbon economy, which is also a means to tackle climate change, is that significant economic opportunities exist here. Northern Ireland has a

tremendous wind resource. At present, around 95% of all renewable electricity in Northern Ireland is generated by wind. That strong bias towards wind power is likely to continue. However, other options include biomass energy, wave power and, potentially, solar energy. Overall, we believe that efforts to tackle climate change must be multifaceted. However, we should play to our strengths. Wind is one of Northern Ireland's strengths. It is likely to continue as such.

1533. I understand that the Committee previously received a presentation from the Confederation of British Industry (CBI). The CBI has stated that now is the time to move towards a low-carbon economy. I know that it has highlighted the potential economic benefits that can be gained from that. A number of other groups, such as Northern Ireland Manufacturing, has also made climate change one of their priorities. It is important to highlight cost. Although there will obviously be an initial outlay, the overall financial effect is positive, because not only will money be saved but jobs will be created through inward investment, and so on.

1534. As I said, the bias towards wind power is likely to remain in the longer term. However, a multifaceted approach must be taken.

1535. Mr Casement: There are strong lessons to be learned from the biodiversity process and the setting of targets. A target has been set to halt biodiversity loss by 2010. It is palpably clear that that target will not be met. Analysis has been carried out as to why it will not be met. One major factor is that too much time has been spent on talk and not enough on action. That sends out a strong message that it is time that we acted on climate change. We do not have to discover and learn every last fact, nor research everything that there is to know about climate change.

1536. The second reason that biodiversity targets will not be reached is that efforts are too spread out and badly co-ordinated. Government, in particular, have not taken a co-ordinated approach. The message is strong that, to tackle climate change, joined-up government is needed. Under current arrangements, we believe that joined-up government is OFMDFM's responsibility. We believe that it has shown serious lack of leadership. That is manifest by the failure to appoint a new sustainable development commissioner for Northern Ireland. That sends out all the wrong messages in the first place. To try to tackle some of the issues is an important part of the Office's role. There are serious gaps in what Government are doing through OFMDFM.

1537. The Chairperson: Hopefully, the meeting will add some focus to that work. That is the purpose of your being here. Thank you for giving up your time to be here.

1538. Mr Ford: I want to pick up on the point that Mr Casement highlighted in his written statement and that he has just told us about, which is the failure to do anything about high-powered targets. You will have heard earlier discussions about the structures that we need for scrutiny. Based on your experience of working with the DOE and its agencies, have you any suggestions as to the right scrutiny mechanisms, as opposed to just telling Ministers to do the job, on which, perish the thought, I might agree with you?

1539. Mr Archdale: It is not a simple answer, because if it were, many other Governments would have come up with the mechanism. A balance must be struck between the short-termism of politics and the long-termism of the environment, and that is particularly difficult, as you will doubtless agree, in our situation, because the whole system is geared towards a four- or five-year cycle, and getting politicians re-elected. Therefore, there needs to be a consistency and a long-term vision so that there is not the constant changing and off-setting against short-term issues. An approach similar to that of the Sustainable Development Commission (SDC) would be a powerful way in which to give that recommendation.

1540. However, the thread then needs to run through to be seen in political manifestos. Ultimately, I wish to vote for a party that says that it will follow the SDC's general recommendations. Looking at other cross-cutting issues, we, collectively, have failed significantly on issues such as coastal management, where there is an EU directive to push us in that direction but nothing is happening. As the Chairperson said, there is much talk but very little action. I do not know whether I have answered the question.

1541. Mr Casement: The actual structure is less important than the need for leadership to be shown somewhere, and for people to step forward and say that they will take responsibility. As Peter says, it is exactly the same with integrated coastal management, where no Department has stepped forward, or been pushed forward, and said that it will take the lead, and that is what is needed in both cases.

1542. The Chairperson: Thank you. Members have queries, and I ask them to be concise, as we are under pressure for time.

1543. Mr Weir: I agree with what has been said about action rather than talk, so I will keep my questions as brief as possible. In your submission, you made reference to targets for 2050. Do you have any projected targets for 2020? In your suggestions for 2050, you state that the targets should be closer to 95%. Where did you get the 95% figure, as opposed to the 80% figure, which is generally mentioned? Do you think that a 95% reduction in CO₂ emissions is realistic by 2050, given that most people would consider an 80% reduction to be challenging?

1544. Mr M Campbell: Yes, the 80% reduction is challenging but achievable. In most cases, although it is not explicitly said, an 80% reduction — at least — is required by 2050. That is based on the best available scientific evidence and relates back to the targets agreed by the EU and the UK on the need to limit temperature rises to no more than 2°C above pre-industrial levels. If that is the ceiling, the EU and the UK have worked out what an appropriate concentration of carbon dioxide in the atmosphere would be required in order to ensure —

1545. Mr Weir: You said that you believe that the target should be closer to 95%.

1546. Mr M Campbell: Several individuals and thinkers say that it is necessary to get closer towards 95%, particularly in industrialised countries, because we in the industrialised countries have, historically, been responsible for the majority of the emissions thus far.

1547. Mr Weir: Is a 95% reduction doable?

1548. Mr M Campbell: Anything is doable if the will exists. In 10 years, the United States went from thinking about putting a man on the moon to putting a man on the moon. If the political will is —

1549. Mr Weir: They did not return to the Stone Age.

1550. Mr M Campbell: I do not see the relevance of the Stone Age to this debate.

1551. Mr Weir: What do you feel the reduction level should be by 2020?

1552. Mr M Campbell: Any targets that at least match those in the UK Climate Change Act would be appropriate. We have not gone as far as to specify the CNCC's view, but, I hope that we will be able to match the UK-wide commitments. There is real potential for the use of renewable sources.

1553. Mr Casement: Stop Climate Chaos Northern Ireland made the point that the trajectory is as important as the target. We must tackle the issue, and, therefore, the intermediate targets are important.

1554. Mr Archdale: I have real difficulty with putting hard numbers on the issue. The reason for that is essentially the answer that I gave to Mr Ford. Your problem, as politicians, is selling the idea and getting re-elected, and that is why climate change is low on the political agenda.

1555. The Chairperson: The view that climate change is low on the political agenda is questionable.

1556. Mr Archdale: It will move up the agenda when events such as the summer —

1557. Mr Weir: The Minister has done his best to put climate change higher up the political agenda. [Laughter.]

1558. Mr Archdale: I accept that point totally, but the real point is that the long-term impacts of failure to do enough are severe. People's perceptions will change when the lights start to go out, and so forth, but it will be too late by then.

1559. The Chairperson: Many of us accept that, which is why we are here today to focus on the issue.

1560. Mr T Clarke: Do you have a figure, Malachy, for how much savings wind turbines generate compared with more conventional methods?

1561. Mr M Campbell: I cannot answer that question directly, because it depends on with what method wind energy is compared. The relative emission savings that wind turbines generate depend on whether they are being compared with coal-fired power stations, oil-fired power stations or whatever type of gas-fired power station.

1562. Mr T Clarke: Can you make a general comparison?

1563. The Chairperson: You can get back to the Committee with the relevant figures if you wish.

1564. Mr T Clarke: Once again, wind energy is being advocated as the best method without its being measured against any other method. It is sometimes good to make comparisons. Someone with your background should have an idea of how much carbon is used in the production and installation of a wind turbine, and how long is the payback? It should be borne in mind that we are discussing the 2020 target.

1565. The Chairperson: You can supply us with the relevant figures if you do not have them immediately to hand.

1566. Mr M Campbell: I have some of the figures to hand. The payback time for greenhouse-gas emissions that are generated in the life cycle, manufacturing and insulation of a wind turbine is generally between three and six months. For a power station, the payback time can be 10 years or more in some cases.

1567. Mr T Clarke: I would like to have a look at the source of those figures. Chairperson, you were quick to say that some parties support the use of wind turbines. Our party was one of those supporters, but your party made a representation in support of wind turbines on bogland or lowlands. Is it a good idea to put wind turbines on bogland, which has to be drained?

1568. Mr Archdale: Again, it depends. People need to be very clear about the full ramifications of their actions. Wind turbines may be appropriate on bog that is not very deep because of the high energy returns. Energy returns from lowlands may be less, but the accruing damage may be less, too. It is a complex situation. We are not taking a broad enough view at present — the issue needs to be considered in the context of all the consequences.

1569. Mr Casement: All renewable energy sources need to be looked at to determine their total carbon budget. It is no use using the headline figure. Instead, the costs of production and installation and the damage that they may do to the environment must be considered. It is crucial that those sums are applied to all forms of renewable energy; otherwise, installations will be put up that cost, rather than gain, carbon. If we can get that right, wind and other energy sources have huge potential. As Malachy said, a very strong mix is needed at different levels, both at the large scale and at the micro scale, at which individual houses are able to produce their own energy.

1570. The Chairperson: We often find that many wind turbines have to be placed on elevated hill tops, which, invariably —

1571. Mr Casement: Landscape issues must be taken into account.

1572. The Chairperson: You will never get absolute compatibility in a decision-making process.

1573. Mr Casement: That is a difficult issue, and one that we are facing, because we are asked to give advice on the location of wind turbines.

1574. Mr Beggs: What is your mechanism for taking that into account? How do you decide on the overall benefit?

1575. Mr Casement: We have to look at the site and the supplementary planning guidance to draft Planning Policy Statement 18 (PPS 18), which covers wind energy and considers landscape character for different areas. More importantly, we look carefully at the substrate — the soils on which the turbine is to be built. When wind farms are proposed on deep peat, for example, we recommend that the proposals be turned down. We recommend that proposals to build wind farms in high-value landscape areas are turned down.

1576. We try to take a balanced view on the issue, and to do so is not easy. We all find ourselves in difficult situations in which we try to encourage the use of renewable energy but in which we sometimes have to say that installations should not go up in a certain place.

1577. Mr Beggs: You said that the carbon-emission reduction target should be 95%. It is important that that is a SMART target so that people feel that it is achievable. A reduction of 80% will require much change and adaptation, and it seems to be an ambitious target, but one that we have to go for. Is your proposal for a 95% reduction in danger of being seen as unachievable?

1578. Mr M Campbell: The CNCC's view is that the target of 80% is a good target for which to aim. Our document tries to reflect an evolution in thinking. The target should be at least 80%, but arguments are being made in many circles that the target should be higher than that, and perhaps as high as 95%. The document is meant to reflect that developing line of thinking rather than see it as a hard-and-fast target.

1579. Sweden has said that it wants to move towards a fossil-fuel-free economy by 2020. If a country such as Sweden can aim to do that in 11 years, a reduction of 95% in 41 years does not

seem so unrealistic. The 95% target reflects a line of thinking on the need for severe reductions in carbon emissions and for the urgency of that cutback.

1580. Mr Beggs: You made specific proposals for electrification of transport and the adoption of hydrogen-powered vehicles. Do you agree that there is little point in moving to electrical or hydrogen-powered vehicles if oil and coal is burned to generate the electricity? Through those proposals, for an organisation that calls itself the Council for Nature Conservation and the Countryside, you are getting into some specific technical areas. Do you agree that some dangers are associated with that and that an overall package is required? You mentioned Scandinavia, where, as I understand it, a great deal of hydroelectricity and nuclear energy is used. What is your view on such methods of producing electricity?

1581. The Chairperson: Can I have only one response to that, gentlemen? We have overshot our time by a good bit.

1582. Mr Casement: We are pro-hydropower — subject to provisos on the net balance of the resultant damage. The CNCC comprises 20 individuals, and I suspect that there are up to 20 different views on nuclear energy in the group, but we have not explored that. I think that it is slightly beyond our remit.

1583. I accept that we have been specific in certain cases. However, human abilities and human ingenuity are remarkable. One only has to look at the advances that have been made in wind-turbine technology in the past two years, let alone the past 12 years, and we are seeing enormous strides being made in efficiency, in effectiveness and in the amount of power that the same size of turbine can produce.

1584. We must recognise that we have enormous capabilities. If we can produce electricity by renewable means, we are freed immediately from the carbon economy. I see that as a positive feedback mechanism. Once one starts to make significant improvements in becoming carbon-free, one gathers a momentum that is almost unstoppable, because it makes such good sense, not only environmentally but economically.

1585. The Chairperson: Thank you for your presentation and for taking the time to be with us today for our valuable inquiry. We will see you again.

1586. Mr Casement: We look forward to that.

11 June 2009

Members present for all or part of the proceedings:

Mr Patsy McGlone (Chairperson)
Mr Cathal Boylan (Deputy Chairperson)
Mr Roy Beggs
Mr Tommy Gallagher
Mr David McClarty
Mr Ian McCrea
Mr Alastair Ross

Witnesses:

Mr Geoff Smyth
Ms Bairbre de Brún MEP
Carbon Trust Northern Ireland

1587. The Chairperson (Mr McGlone): The Committee will today hear evidence from the Carbon Trust Northern Ireland and then from Bairbre de Brún MEP. The Carbon Trust's mission is to accelerate the move to a low-carbon economy by working with organisations to reduce carbon emissions now and to develop commercial, low-carbon technologies for the future. A summary of the Carbon Trust's submission to the inquiry can be found in Committee members' packs, along with the specialist adviser's comments.

1588. I welcome Geoff Smyth, who is the manager of the Carbon Trust Northern Ireland. Thank you for appearing before the Committee today. Witnesses have 10 to 15 minutes in which to give us an overview of their position. Members have received your submission, Mr Smyth, so if you give us a synopsis of it, we will then ask questions.

1589. Mr Geoff Smyth (Carbon Trust Northern Ireland): Good morning, everyone. The Carbon Trust welcomes the opportunity to make a submission to this important inquiry, and we are grateful for the opportunity to meet you today. I commend the Committee for embarking on this very important undertaking.

1590. Many distinguished organisations, institutions and individuals have described climate change as being not only the greatest environmental threat of our time but the greatest threat to global health, to economics and to issues that relate to economies around the globe. It has also been described as the greatest market failure that the world has ever seen. Therefore, we do not underestimate the challenge and importance of the inquiry to the Committee, and to the wider work of the Assembly and the Executive.

1591. In our submission, we made a number of points, and I will highlight a few of the key ones. Set against a backdrop of increased demand for energy in Northern Ireland and, globally, against the need to rapidly reduce carbon emissions, a case can be made for having a dedicated Department for energy and climate change, or a similarly mandated Department. Energy and climate change are so fundamentally intertwined that their continued separation runs the risk of our having inefficient, suboptimal policy and delivery. Each of the 11 Departments has an important role to play in addressing climate change, but for that role to be in various silos runs the risk of their being poor delivery of what is needed. We also think that a dedicated Department would provide a close focus on the advantages and benefits of responding to climate change. Huge economic opportunities exist, and were it the responsibility of one mandated Department, we feel that that Department would deliver in the best manner.

1592. The inquiry's term of reference (a) seeks indications of initial commitments for Northern Ireland to play its part in achieving the UK targets. There is a plethora of targets out there, so the inquiry will certainly not be held back by a shortage of targets. There is the European Union 20-20-20 package of measures, the UK Climate Change Act 2008 and targets in the sustainable development strategy for Northern Ireland and the Programme for Government. All are quite challenging, and they will not happen under a "business as usual" scenario. They will not happen by accident but will require meticulous, intelligent planning in order to ensure that the targets are achieved in the most cost-advantageous manner to Northern Ireland plc. We have offered some suggestions as to how we might best go about meeting targets. We firmly believe that, although they are set at a UK level, the targets in the Climate Change Act 2008 should be devolved, and there should be specific Northern Ireland targets. That will keep the focus on what Northern Ireland needs to do to play its part in meeting the UK and EU targets.

1593. It is also important for an evidence-based implementation plan to be developed and delivered. There are many targets out there, but we require implementation and delivery. That must be achieved through a credible, evidence-based and costed action plan that allows us to deliver those targets to the maximum advantage of Northern Ireland plc.

1594. A focused, targeted carbon-reduction-awareness campaign that engages all aspects of our economy and society and that demonstrates why it is important to achieve the reduction targets is necessary. Such a campaign will deliver many advantages, including, through better energy management and efficiency, reductions in energy expenditure, and it will also stimulate and catalyse many business opportunities in the move towards a low-carbon economy.

1595. The Northern Ireland public sector has a pivotal role to play in demonstrating leadership. Indeed, the rapid decarbonisation of that sector's estate will stimulate jobs in construction and associated sectors, afford efficiency savings through reduced energy expenditure and help to build the capacity of local businesses to deliver those solutions. Building regulations, the investment strategy and the planning processes have an important role to play to ensure that the move to low-carbon buildings, infrastructure and solutions is co-ordinated and optimised.

1596. The Committee's term of reference (b) for its inquiry asks for suggested actions and a route map for each of the significant sectors. The Carbon Trust undertook a piece of work some years ago that examined the challenge of moving towards the then Government target of a 60% reduction in carbon emissions by 2050. Of course, that target has now been superseded by the 80% reduction by 2050. During the course of that work, the Carbon Trust concluded that three main developments were required. First, energy use needed to be optimised through the implementation of all energy-efficiency reduction measures. Secondly, our energy and fuel sources needed to be decarbonised through investment in renewable-energy and clean-energy technologies. Thirdly, economic growth needed to be decoupled from social activity and the consumption of high-carbon goods.

1597. Any credible plan must immediately encourage improvements in energy efficiency, which is an action that will secure a huge prize. According to Government statistics, Northern Ireland wastes in excess of £500 million each year through inefficient energy use. Reduced energy expenditure would not only help with fuel poverty and other policy imperatives but would reduce our carbon emissions in the most cost-effective manner possible. Therefore, we need a big push in that area.

1598. Furthermore, Northern Ireland must improve its building standards, and the newbuilds that are being constructed today should be fit for purpose over their lifetimes. The schools and hospitals that are being constructed now are still likely to be in existence in 2050, so they must be capable of delivering 80%-plus reductions in carbon emissions over that period. Furthermore, there must be support for a rapid move towards zero-carbon-emission buildings.

1599. The Carbon Trust also feels that there should be a change in public procurement policy to promote the highest possible standards of energy efficiency. The public sector is a principal procurer of newbuilds in Northern Ireland, and it is a significant energy user in its own right, being responsible for the emission of approximately one million tons of carbon each year. If the public sector changes the way in which it procures its sources of energy, that could provide a tangible boost to the indigenous bioenergy sector, for example, which would assist our rural economy and help to provide some resilience against, and independence from, imported fossil fuels.

1600. Improved data collection and presentation of evidence is needed. There are many ways in which to reduce carbon emissions, some of which are more cost-effective than others. There is a great deal of noise and misleading information out there, so it is important that Government supply credible, evidence-based actions, which citizens and businesses can use to play their part in moving towards a low-carbon economy.

1601. Action should also be taken to develop our local renewable-energy industry. Some very challenging targets are contained in the sustainable development strategy and the Programme

for Government, and, in order to achieve our contribution to UK and EU targets for renewable energy, Northern Ireland requires an investment of approximately £2 billion over the next decade.

1602. Northern Ireland's contribution from renewable energy will have to increase from its current level of around 240 MW to more than 2,000 MW by 2020, and that will not happen by accident. That huge investment will require the marshalling of many policies, planning and private sector investment if it is to be achieved in the most cost-advantageous manner.

1603. Work needs to be done on energy regulation to promote the benefits of good quality combined heat and power (GQCHP), which can offer significant carbon reductions, and to discourage the use of inefficient generation simply for cost savings in peak periods.

1604. A plethora of issues relates to cost-cutting measures. Planning procedures need to be developed that will deliver renewable-energy targets at scale and optimise the transport infrastructure. There is a large push towards electrification of vehicles. We must ensure that all investments in transport infrastructure will enable it to be fit for those vehicles when they are developed. More broadly speaking, we must keep a watching brief on international developments to ensure that we are positioned to adopt new technologies as and when they are developed.

1605. The inquiry's term of reference (c) seeks to identify the costs associated with meeting obligations against the cost of not doing so. I am sure that the Committee is aware of much work that has been done in that regard, such as the Stern Review on the economics of climate change. The conclusion of that piece of work, and others, suggests that the earlier that action is taken, the less costly the move to a low-carbon economy will be. Stern suggests that if we were to act now, it might require investment of 1% of GDP. If action were to be delayed, it could require anything between 5% and 20%. There is an imperative to act early.

1606. The move to a low-carbon economy will also bring about significant job-creation and wealth-creation opportunities. We carried out an initial piece of work to consider the share that Northern Ireland Manufacturing and other businesses could secure of that growing market. Previously, we published and presented to the Committee our report's findings, which suggest that if the Executive make that a strategic priority, if businesses are made aware of opportunities and if existing supply chains for deployment of renewable-energy technologies are disrupted, for which there is already a mandate, NI businesses could create an additional 8,000 to 33,000 new jobs to serve that sector.

1607. That is broadly consistent with the EU Commission's expectations. It suggests that investment in renewable-energy systems would create an additional two million jobs throughout the 27 EU member states. It will be driven by investments that include more than \$2 trillion by the EU into its energy systems by 2030. A piece of work that the Carbon Trust undertook to look specifically at offshore wind energy suggests that the UK could secure and develop an additional 70,000 jobs, and stimulate a revenue of £8 billion-plus by 2020 by developing offshore opportunities in the UK.

1608. The Obama-Biden plan for America seeks to create five million new jobs through investment of \$150 billion over the next 10 years. Therefore, there is a great deal of activity in that space. Many countries have already invested heavily in clean-energy technologies and so-called green-collar jobs. Indeed, varying percentages of many nations' recovery plans specifically target green-collar jobs and opportunities.

1609. Recovery plans in the Asia-Pacific region — for example, China, Japan and India — amounts to in excess of \$1.15 trillion. Around 23% of that money is targeted at creating new

clean-energy, green-collar jobs. Recovery plans in Europe amount to around \$634 billion. Of that, around 17% is "green".

1610. The American recovery plan is worth more than \$1 trillion, of which around 11% is "green". Many countries are already recognising the opportunity to produce the low-carbon and clean-energy solutions that the globe will need in the years ahead, and they are investing heavily to secure their share of that.

1611. The Committee's term of reference (d) seeks to identify a formal, cost-effective mechanism for assessing the potential impact of new policies on climate change. We strongly support the introduction of a formal climate-change, greenhouse-gas-emission or low-carbon-economy proofing requirement for all Northern Ireland-originated policy. That would ensure that we do not lock ourselves into any high-carbon infrastructure in the years ahead and help to future-proof strategic investments.

1612. The science of climate change has set the direction for the appropriate targets and actions that might be included in the new Northern Ireland sustainable development implementation plan. That suggests that developed countries need to reduce carbon emissions by 80% by 2050. That should be a minimum target for Northern Ireland. However, it will be a very challenging target, because we will be seeking to grow our economy throughout that period. We could, by 2050, have an economy that is three times larger than it is at present but be producing 20% of our current carbon emissions. That is the real challenge ahead.

1613. We believe firmly that, owing to the cross-cutting nature of climate change, a lead Department should be mandated to manage and deliver on the very challenging targets in order that the Assembly might conduct more effective scrutiny of climate-change responsibilities.

1614. Mr Boylan: Thank you for your presentation. Have you made any calculations around how to attain a low-carbon economy? From where should that funding come?

1615. You mentioned a dedicated Department for energy and climate change. The Minister has just left the Committee meeting, so perhaps you should have mentioned that earlier. Can you expand on what other responsibilities such a Department should have? Have you encountered any difficulties in encouraging businesses to adapt to energy efficiencies? If so, how have you tackled them?

1616. Mr Smyth: A Department for energy and climate change would have plenty to get on with just by focusing on the issues that I have raised. Each of the 11 existing Departments has a key role to play in delivering a low-carbon economy. The two principal Departments are the Department of Enterprise, Trade and Investment (DETI), with its responsibility for energy policy, and the Department of the Environment (DOE), which is remitted to deal with climate change, regulation and policy.

1617. That said, the Department of Agriculture and Rural Development (DARD) has responsibility for energy, crops and the promotion of same; the Department for Social Development (DSD) has responsibility for housing and fuel poverty; the Department of Finance and Personnel (DFP) is responsible for public sector energy management and building standards; the Office of the First Minister and deputy First Minister (OFMDFM) is responsible for sustainable development strategies; and so on.

1618. In order to optimise the investments required to deliver carbon-reduction targets, I suggest that we need to have either a separate, new Department, or an appropriately mandated and resourced Department that can gather all those different elements under the broad climate-

change, low-carbon-economy umbrella and ensure that policy is optimised to deliver on that; otherwise, we run the risk of having conflicting policies.

1619. One manifestation of that conflict is DETI's desire to deliver 40% of electricity from indigenous, renewable sources by 2020, when planning rests with DOE. Anyone in the large renewable-energy sector will tell you that one of the impediments to delivering on targets is not the lack of capital or resource but delays in obtaining planning approval for wind turbines and other large-scale renewable projects.

1620. We have had a fair degree of success over the past seven years in engaging with businesses. We have conducted more than 2,000 energy surveys with local businesses. Businesses, acting on those recommendations, have invested more than £90 million in order to enjoy cost savings of £60 million per annum off their energy expenditure. In so doing, they have reduced their carbon emissions by more than 560,000 tons a year.

1621. The Carbon Trust's work has helped to stimulate significant investment in that space. We have helped local businesses reduce their carbon emissions by what amounts to 10% of Northern Ireland's total business emissions. That is a considerable achievement, but there is much more to be done. One of the issues that we encounter is trying to reach new businesses. Many companies out there have never heard of the Carbon Trust and do not know that we are capable of providing free, independent and authoritative advice. Unfortunately, no marketing or recruitment budget was devolved to us, so we face a difficulty in engaging with new businesses to make them aware of opportunities and help them play their part in meeting the carbon-reduction targets.

1622. Mr Boylan also asked about the cost of the transition to a low-carbon economy. We undertook a vision study in 2005, which looked at how to achieve a 60% cut in emissions by 2050. That target has been superseded by an 80% cut at least in the same time frame. However, in 2005, we were indicating costs of around £775 million over and above what is currently invested in that space. That amounted to £75 per ton of CO₂ abated, which was probably at the high end of similar UK studies.

1623. One of the important things that emerged from that study was that the longer that we delay taking action, the higher the cost will be. If it amounted to £775 million in 2005, it is probably £1 billion today and will be £2 billion in five years' time. The investment decisions that Government, businesses and citizens take do not put us on a trajectory of stabilising emissions at 550 parts per million but suggest something in excess of 700, or even 1,000, parts per million. We are locking ourselves into high-carbon emissions in the future, which will be more costly to address retrospectively.

1624. Mr Beggs: You indicate that your recent work has resulted in savings of £60 million a year from a £90 million investment. That looks like an 18-month payback period, which is an impressive enticement to businesses to change and improve. What percentage of Northern Ireland business have you been able to urge to improve the bottom line through that type of work?

1625. Mr Smyth: As I said, over the past seven years, we have conducted 2,000 energy surveys. That probably reached a maximum of around 1,000 businesses. We work in close partnership with a number of large energy users, such as Michelin, Vista Energy and others. We spend considerable time and effort helping them to accelerate their decarbonisation programmes. We do multiple surveys for those large businesses.

1626. However, there is a plethora of SMEs with which we have been unable to engage. For example, if there are 60,000 registered businesses in Northern Ireland, of which 30,000 have

two or more employees, we are engaged with only a relatively small percentage of businesses by workforce size, but we are probably engaged with 50% by carbon emissions produced. We work with 60 large businesses that typically spend more than £1 million a year on energy, and they produce something like 50% of the business sector's carbon emissions. Numerically, we reach a relatively modest percentage of all Northern Ireland businesses, but by the carbon opportunity, we reach around 50%.

1627. We could do more, and we are keen to do more. We are in the process of recruiting a dedicated small and medium-sized enterprise (SME) client manager who will engage with SMEs individually and collectively. We hope to drive additional savings through the SME sector.

1628. Mr Beggs: I want to ask about the public sector's role as those changes are being made. Resources will have to be invested in more efficient buildings, for example. What sort of payback period can you predict to entice the public sector to move down that route? Are you working actively with the public sector?

1629. Mr Smyth: Unfortunately, we are not working with the local public sector. That is one my great frustrations.

1630. Mr Beggs: Why not?

1631. Mr Smyth: Our funding comes via DETI to Invest Northern Ireland. The letter of offer from Invest Northern Ireland to the Carbon Trust made it clear that its funding is for businesses, not for public sector organisations.

1632. Mr Beggs: Is someone else working with the public sector?

1633. Mr Smyth: Not to my knowledge. DFP has some in-house capacity, but the Carbon Trust is in a unique position. The devolved Administrations in Scotland and Wales have enhanced their funding of the Carbon Trust to help them deliver on their challenging targets. Locally, however, the Carbon Trust is not funded to help the public sector, and that is regrettable. We have something to offer, and we could play a useful role in helping to ensure that the investment decisions that are made in the public sector are correct and deliver maximum value.

1634. The Chairperson: It may be useful, as part of our inquiry, that we establish what mechanisms could be put in place to facilitate that?

1635. Mr Beggs: It would help us to understand how the other devolved institutions have worked with the Carbon Trust for the benefit of the public sector and the public purse. If Mr Smyth has any further information on that, I hope that he can provide it to the Committee. It is an important issue, and I am shocked that, for some reason, there is a void here in Northern Ireland.

1636. Mr Smyth: I will be happy to share our experiences in Scotland, Wales and England with the Committee.

1637. Mr Beggs: Although resources will be required to make that investment, what are the implications of our not moving towards a low-carbon economy?

1638. Mr Smyth: I will pick up on your previous point about opportunities for the public sector. The public sector, collectively, is spending approximately £150 million a year on energy. Our experience across the UK suggests that 20% of that money could be saved through cost-effective measures that typically pay back after three years. That suggests that there is an

opportunity for the public sector in Northern Ireland to make recurring savings of approximately £30 million a year on energy expenditure. A one-off capital investment would cost somewhere between £60 million and £90 million, which the local construction sector and its offshoots would welcome. There is a compelling business case for the Northern Ireland public sector to go after those savings aggressively.

1639. If Northern Ireland puts its head in the sand and ignores climate change, that will have a detrimental effect, not only because of our dependence on imported fossil fuels and the geopolitics of the supply of those fuels but because it will be disadvantageous to Northern Ireland businesses. The political decision has been taken, and we are moving towards a low-carbon economy. The EU is a significant power bloc, and it is driving forward some very useful policy measures. President Obama has signed up the USA to an 80% reduction in carbon emissions by 2050. The global low-carbon movement will crystallise in the coming year. Northern Ireland would put its businesses at a great disadvantage were it to attempt to ignore that movement. Consumers expect the products and services that they buy to be low-carbon products from businesses that take their environmental obligations seriously.

1640. Our analysis is quite stark. We do not believe that high-carbon businesses have a future. All businesses will have to be low-carbon. If the science of climate change is right, and we have no grounds to dispute that, there seems to be political will to drive rapidly towards a low-carbon economy, which means that everything that we consume, and all businesses providing goods, materials and services, must be fit for purpose for that low-carbon economy. The risk is that if Northern Ireland gets left behind, we will not only lock ourselves into businesses that have to pay more for what is likely to be increasingly expensive energy, we will be penalised for the associated carbon emissions, and struggle to find markets for the high-carbon products that they will be manufacturing.

1641. Mr Gallagher: Thank you for your presentation. You mentioned Planning Service delays in processing applications for electricity production from renewable sources. Will you elaborate on how poor the Planning Service's response is or how slow it is in comparison with elsewhere?

1642. Mr Smyth: Unfortunately, the Carbon Trust does not have any direct experience of that because it is not a developer of wind farms or large renewable projects. However, we have worked with many local companies to help them develop business cases for investing in large-scale renewable-energy projects. We have worked closely with approximately 30 businesses over the past five years or so. We have helped them to understand the financial case for investment and have assisted them through some aspects of gathering evidence on wind-speed data for large-scale wind projects for example. None has come to fruition yet; many are at various stages of planning.

1643. The timescale from project conception to delivery is around five years to seven years: that is not where we need to be. However, it gives some indication of the scale of deployment of renewables that we will be required to deliver by 2020 if we are to achieve our targets. Most of that capacity will be delivered from on-shore wind through large wind turbines. We will have to increase from approximately 200 megawatts of on-shore wind energy production to an amount well in excess of 1,200 megawatts. That is a massive investment. More than 1,000 utility-scale turbines will be required, which approximates to one new wind turbine of 2.3 megawatt capacity, costing approximately £2 million, being installed and commissioned in Northern Ireland every week from the start of this year to 2020. That is the scale of deployment that will be necessary to achieve our target.

1644. We have been getting feedback from some businesses that we have been working with that Planning Service is not sympathetic to, or in some instances, does not have a presumption in favour of, the application, but that the situation is quite the opposite. The longer that those

applications remain in the planning system, the more difficult and, probably, costly it will be for us to achieve our targets. Feedback from people in the industry is showing that PPS 18, for example, is another impediment to the deployment, at scale, of large renewable-energy projects, some of which are taking five years to seven years to work their way through the system.

1645. The Chairperson: Thank you for your evidence and for attending. It has been very informative. We are arranging a couple of visits to businesses, through the Carbon Trust, to see performance on the ground. We had agreed earlier to do that.

1646. Mr Smyth: Yes; I look forward to that.

1647. The Chairperson: Thank you for your time.

1648. The next evidence will be from Bairbre de Brún MEP in regard to our inquiry into climate change. Ms de Brún believes that tackling climate change effectively brings opportunities as well as challenges and that Ireland is well placed to be at the centre of a new green economy. A summary of her submission to the inquiry is in the members' packs.

1649. Caithfidh mé a rá go bhfuil fáilte romhat agus gabhaim comhghairdeas leat as a bheith atofa.

1650. You are welcome to the Committee meeting, and congratulations on your recent re-election. Members have been provided with your evidence. We will have 10 to 15 minutes of an overview from Ms de Brún, and members' questions will follow. Go raibh maith agat agus as a bheith linn. HSIRI

1651. Ms Bairbre de Brún: Go raibh maith agat, a Chathaoirligh as ucht an chuiridh a theacht agus labhairt libh. I welcome the opportunity to speak to the Committee. The Assembly has given its consent for the provision of the Climate Change Act 2008 to apply in the North of Ireland. There is an opportunity for new local legislation. On the one hand, we know about the ongoing discussions, including the recent recommendations from the Transport, Infrastructure and Climate Change Committee in Scotland, with regard to the Scottish Climate Change Bill. Recently, we heard also that the Irish Government intend to introduce legislation in the autumn based on the Westminster Act. Since those discussions are taking place, this is a timely and strategic opportunity for the Executive and the Committee to discuss they type of legislation that they could introduce that would be specific for the North of Ireland and which would fit in with those with whom they would be interacting.

1652. A detailed integrated Executive strategy that details how we are going to meet our carbon emission targets and adapt to climate change should spell out how each sector of the economy could contribute to reducing those emissions. We need to reassess our options — specifically those in respect of tackling rising energy demand, meeting energy efficiency and renewable energy targets and reducing CO2 emissions.

1653. As others have said, and as the Committee has heard already, there is a tremendous opportunity to put production and use of renewable energy at the heart of the Executive's economic strategy. There are opportunities, as well as costs. Investing in new technologies can create more jobs and lower energy bills. Renewable energy, in particular, can be developed in the all-Ireland energy market framework that has been developed recently, and which continues to be developed, between the Executive and the Irish Government.

1654. 2009 is a key year in setting out the global response to climate change, and new targets and actions to ascertain what will come after the Kyoto protocol and, therefore, the new targets and actions to tackle climate change, are due to be made at the EU conference in Copenhagen

at the end of the year. The European Parliament climate energy package has also given effect to the targets set by the EU to achieve, by 2020, 20% of renewable energy; 20% of energy efficiency and a 20% to 30% reduction in emissions relative to the 1990 level.

1655. In 2007, the European Parliament set up the Temporary Committee on Climate Change, which was given a number of powers including the formulation of proposals on the EU's future integrated policy on climate change, and it held a number of thematic sessions. I was the theme leader for the eighth thematic session, which was entitled "Achieving significant CO2 emission reductions in short time: learning from best practices regarding successful policies and technologies". Among the best policies mentioned in that session were efficiency measures, such as the retrofitting of houses and offices; more sustainable buildings; better traffic planning; more efficient lighting; reusing and recycling; more efficient use of water; increased public transport, walking and cycling; use of ICT to reduce travel and to improve the effectiveness of businesses and industry, and a monitoring of the carbon footprint of businesses or municipalities, as well as a move to renewables. Therefore, there is a wide range of sectors in the economy that can contribute to the fight against climate change.

1656. The concluding report of the European Parliament Temporary Committee on Climate Change emphasised, as we have heard this morning, that tackling climate change will help to create jobs in new technologies, combat energy poverty and dependency on imported fossil fuels and provide social benefits for citizens. The report was wide ranging, and the European Parliament adopted it in an amended form.

1657. The report makes useful suggestions on a range of policy areas that could provide a good starting point for decision-making and policy-making. However, all of those measures will need to be adapted to local circumstances. Therefore, binding domestic legislation that incorporates emission reduction targets can go some way to address the effects of climate change at home. A local climate change Bill with annual appraisals and emphasis on action at local and all-Ireland level would be very helpful.

1658. Engagement with business, as well as with the public sector, is also extremely important. Large companies can make changes and not just to their own practices; because of the way that they engage with subcontractors and suppliers, large companies can influence the behaviour of SMEs and others in the supply chain.

1659. Public sector procurement, including our investment strategy, is also extremely important. If there are components of our public sector procurement that underpin the targets for reducing CO2 emissions, they will underpin how we invest and carry out actions across the range of Departments.

1660. Closer co-operation and co-ordination between Departments and between the relevant Assembly Committees is needed. It might be interesting for the Committee to examine how the European Temporary Committee on Climate Change worked within the European Parliament. That committee was separate and comprised members of other committees; therefore, instead of simply relating to one part of the European Commission in the same way that Committees here relate to one Department, it was able to cross-hatch ideas, because it comprised people with experiences and interests from a range of sectors.

1661. I propose that the Irish Government and the Executive set legally binding targets to reduce CO2 emissions by at least 80% on the 1990 levels by 2050. They should also commit to reducing emissions by at least 30% from the 1990 levels by 2020, and the rate of reduction should be at least 3% per annum.

1662. The Chairperson: Go raibh mile maith agat.

1663. Mr Boylan: I thank Bairbre for her presentation. I also congratulate her and wish her continued success.

1664. What social and economic benefits have other countries in Europe gained from adapting to climate change? Are there examples in Europe of where citizens are willing to accept the use of public funding to tackle climate change? The main issues for citizens on the ground are putting food on the table and getting jobs. However, there is a serious question about whether public funding should be used to tackle climate change. Also, should legislation to address climate change take the form an Act, or should there be secondary legislation? What form of legislation would help the Assembly to best address climate change?

1665. Ms de Brún: Thank you very much. Different countries have had different experiences. As far back as the 1990s, Germany undertook two initiatives; one on price-setting and one on cost reduction. The first introduced electricity feed-in laws, and legislation meant that producers of renewable energy were allowed to sell power to utility suppliers for 90% of the market price, and utility suppliers were obligated to purchase it. The second introduced the solar roofs programme, which offered subsidies to enable households to purchase photovoltaic systems for up to 60% of the capital cost, and they gave other cost-reductions for renewable energy. As a result of those measures, the amount of energy generated from wind power went from virtually zero megawatts in the early 1990s to more than 8,500 megawatts by 2001. Germany became a global leader in renewable energy investment, the social and economic benefits of which were huge.

1666. Some areas of Austria have also achieved success with renewable energy. At a recent AFBI conference here, people from a once-poor region in Austria gave a presentation on the benefits of renewable energy based on their experience of using wood products from the largely rural forest area where they live. Their work in renewables helped make that relatively poor region, which was on the periphery of Austrian society, become one of the richer regions.

1667. You asked a question about whether people would be willing to fund a climate programme. When I was theme leader for the eighth thematic session, representatives from the Catalan Office for Climate Change came to speak to us. They said that they had undertaken a huge awareness-raising campaign, engaged with the local population, and had more than 1,000 proposals examined. The council's structured approach involved not only meetings but Internet and media programmes, as well as engagement with Government and various sectors in civil society on a large scale. The council concluded that a strong participatory process had helped to create awareness, motivation and support among the population for its climate programme.

1668. In response to your final question about legislation: yes, a good opportunity exists to get our own Act on climate change. It would be very useful for the Executive and the Irish Government to work together on that, given that they are already working together on an all-Ireland energy market framework for the single electricity market and gas market and on the all-island grid study for renewable energy.

1669. Having a timescale for bringing forward legislation that will impact heavily on a market that the Governments have decided they should be working on together will ensure that there are no distortions in the legislation that is enacted on either side of the border and that market opportunities are maximised in the time ahead.

1670. Mr Gallagher: Thank you for your presentation, and congratulations on being returned to the European Parliament. You talked about the feed-in arrangements introduced by the German Government on renewable energy production. What is the position in the EU? Are those feed-in arrangements transnational or do they exist in individual member states only?

1671. Ms de Brún: It is mainly individual countries that have taken actions. Other countries with renewable electricity feed-in tariffs include Italy, Greece, France, Denmark, Sweden, Spain, Portugal and others. We have renewable energy obligations here, which involve small annual steps until 2010. However, by 2010, the total does not equate to half what the Danish legislation obliges its end users to purchase, even from 2003 onwards.

1672. The measures adopted, as well the range at which they are adopted, vary by country. The EU has set out a specific package for its 20:20:20 measures: 20% energy efficiency; 20% renewables; and 20% to 30% emissions reduction. A more uniform pattern will start to emerge. However, some countries will start from a low base whereas others will begin in an advanced position.

1673. Mr Beggs: You strongly advocate photovoltaic electricity production. I experienced that subject when I was a member of the Committee for Finance and Personnel before I joined this Committee. I am curious about why you advocate that method because, from memory, the cells have a 25-year life with a 52-year payback period. Therefore, that is not the best method of renewable energy in which to invest; solar heating is more appropriate. Why are you focused on photovoltaic cells?

1674. Ms de Brún: I did not intend to advocate that approach. I mentioned it in response to a question, because Germany has undertaken that measure. However, I pointed out that Germany has also carried out work that has raised vastly the amount of energy generated from wind power.

1675. Mr Beggs: You advocate the use of similar mechanisms North and South. Does such an arrangement not exist already through the single electricity market? If not, what changes are required?

1676. Ms de Brún: Sufficient work has been undertaken on the single electricity market in the all-Ireland energy market framework and through the work on gas. I am anxious to ensure that the work from the all-Ireland grid study continues that pattern. As both countries have been working closely on this, and because that approach has been successful, it would be useful to introduce legislation now, given that we know that the Irish Government will be introducing legislation in a similar time frame to that in which the Committee will be considering the possibilities arising from the Climate Change Act.

1677. Were we to decide to go down that road, it would be a good idea for us to try to ensure that the good work that has been done to date is continued.

1678. Mr Beggs: My understanding of EU rules and regulations is that there cannot be different regulations in different regions of a nation state. Given that, do you accept that the regulations in Northern Ireland will have to follow those in the rest of the United Kingdom? There are natural linkages already, given the interconnector and the gas pipeline. Are you advocating that the Republic of Ireland should adopt the UK mechanisms and methods of regulating energy use and carbon consumption, and develop a single-island electricity network into a wider network of this part of the European Community, encompassing England, Scotland, Wales and Northern Ireland?

1679. Ms de Brún: First and foremost, I am talking about climate-change legislation and how that might impact on the ongoing work, and the good work that has been done to date, on the all-Ireland energy market. I have made it clear that the opportunities available to us must take into account the work that is being done on the all-Ireland energy market, because energy is such a large part of the efforts that we will make to combat climate change. On the other hand, I have also said from the outset that we have a good opportunity at the moment, arising not only from the Westminster Act, but from the ongoing discussions on the Scottish climate change

Bill, to make the most of the synergies that are there and the up-to-date experience that is generating from Committees of the Scottish Parliament, and also from each of those partners with whom we will be working.

1680. Mr Beggs: You said that there is wider electricity network in Europe, that many neighbouring countries work together to gain efficiencies and thus reduce carbon consumption, and that there should be similar working together in the British Isles.

1681. Ms de Brún: That would make a great deal of sense. What the Executive and the Irish Government have done has gone further than anywhere else in Europe to date. It is not often that we are out in front, but we are, on that issue. That work is designed to fit in with work going on elsewhere, including in France. With respect to the climate change Bill — which is separate from the work on the all-Ireland energy market, but they overlap in some sectors — one of the reasons that I stated at the outset that we have such a good opportunity at present is that the Irish Government Minister has said that the legislation that the Irish Government intend to bring forward will be similar to the Westminster Act. We have the Westminster Act, the experience of how Scotland is taking that further and the discussions that the Committees of the Scottish Parliament are having on how that could happen, our discussions here, and the Irish Government's intention to come forward with legislation. That gives us a unique opportunity to create synergies.

1682. Mr Beggs: Finally, we received evidence from the Ulster Farmers' Union with regard to the agricultural sector. Its representatives said that they were concerned about the carbon labelling presently being developed. They indicated that there was a danger of South American beef being given low values that did not reflect the damage being done to the rain forests, or that other aspects of that intensification of beef production were having a detrimental effect on the climate.

1683. How can the proposals cater for that so that local producers do not lose out because other aspects of production elsewhere are not accounted for?

1684. Ms de Brún: Our work, our knowledge and the proposals to date on the sectors such as power generation and other heavy industries are, in many ways, more developed and more precise than in sectors such as agriculture. We are at the early stages of having the precision required for the steps that are to be taken in the agriculture sector, both for land use and for the contribution that agriculture can make to combating climate change.

1685. In its submission to the inquiry, UFU raised the specific point of the use of carbon labelling. Labelling must be extremely precise and very clear. The consumer must not be confused in any way.

1686. Mr Beggs: Do you accept that European regulations have resulted in the export of industries and jobs? For example, chicken imports have been affected because of regulations on the cage space that must be made available to birds. Such regulations have increased the cost of local production in the situation where no similar regulations apply to chicken that is imported from the Far East.

1687. Ms de Brún: I think that most people accept the need for ethical and sustainable business. By and large, EU regulation is such that it underpins the standards that the public have come to expect. In the EU, businesses that want to adopt ethical and sustainable practices want regulation so that other businesses also have to adopt such practices. Ethical and sustainable practices must also be followed in the areas of working conditions, pay and the environment.

1688. Some companies choose to move elsewhere due to regulations, but that cannot be a reason for not having proper working conditions, proper pay and proper environmental standards. However, I accept and have strongly argued along with my fellow MEPs throughout the previous European Parliament that farmers or other sections of the community should not be disadvantaged because they adopt practices that others do not.

1689. The Chairperson: Go raibh míle maith agat, a Bhairbre, as ucht na fianaise a thug tú dúinn inniu, agus go n-éirí leat. Thank you very much for your evidence, and good luck for the future.

25 June 2009

Members present for all or part of the proceedings:

Mr Patsy McGlone (Chairperson)
Mr Cathal Boylan (Deputy Chairperson)
Mr Tommy Gallagher
Mr Peter Weir

Witnesses:

Ms Helen Anderson
Mr Keith Brown
Mr Brendan Forde
Mr David Latimer Department of the Environment
Mr Michael McCallion
Mr Chris McWilliams
Ms Paula McWilliams

1690. The Chairperson (Mr McGlone): Thank you for being here. The aim of the meeting is to establish certain aspects of the role and function of the Department of the Environment's (DOE) climate-change unit. Thank you for inviting us and for hosting the meeting. Other people who are present may not be aware of who you are, so before we start, it would be useful if you introduced yourselves.

1691. Mr Brendan Forde (Department of the Environment): I welcome the Committee to Calvert House, which has been the headquarters of the Department of the Environment's planning and environmental policy group (PEPG) for the past few months. I am Brendan Forde, head of the climate-change unit.

1692. Mr Chris McWilliams (Department of the Environment): I am Chris McWilliams from the climate-change unit.

1693. Ms Helen Anderson (Department of the Environment): I am Helen Anderson, acting director of the climate-change and waste management division.

1694. Ms Paula McWilliams (Department of the Environment): I am Paula McWilliams from the climate-change unit.

1695. Mr David Latimer (Department of the Environment): I am David Latimer from the climate-change unit.

1696. Mr Keith Brown (Department of the Environment): I am Keith Brown from the climate-change unit.

1697. Mr Michael McCallion (Department of the Environment): I am Michael McCallion from the climate-change unit.

1698. The Chairperson: Again, thank you very much for hosting the meeting. Members have suggested discussion topics and questions. I will ask you to talk the Committee through your submission and then to take questions.

1699. Mr B Forde: Our presentation will last 10 or 15 minutes at the most and will, hopefully, address the matters that are most of interest to the Committee. We will answer questions after that. Please feel free to interrupt me at any stage.

1700. I remind the Committee that a specific aim in its own terms of reference is to make recommendations on the public service agreement (PSA) for the DOE's climate-change commitments in the forthcoming second Programme for Government. That PSA will ensure that Northern Ireland meets its climate-change obligations. That interests the DOE, because those terms of reference extend right across the Northern Ireland Government.

1701. An email that described what the Committee wanted to discuss today, subsequent to previous evidence, found its way to us. The three subjects mentioned are summarised in our submission. After visiting the office, the Committee will have some perception regarding numbers and so on, about the first, which is the extent of the operation and how we function. The second subject is how we feed into policy decisions in our Department, including through the Executive. The third element is our liaison with other devolved Administrations, with the UK Government and with that down South in the Republic. That includes the degree of formality, frequency and the medium that is used for communication. I will go through each of those in turn, but members are free to intervene with questions.

1702. The first element is the extent of the operation in the DOE. We have around seven staff at present, although the unit relies on some external support from an economist, a statistician, and scientific and legal staff. We call on them as needed; they are not integrated into the unit. However, we require support from such people on the basis of need.

1703. Probably £130,000 or so of our £160,000 programme money goes to the apparatus that supports the Climate Change Act 2008. That includes our contribution to paying for the independent Committee on Climate Change, the Adaptation Sub-Committee and elements thereof. Therefore, not an awful lot of money is left once the infrastructure that supports the Climate Change Act 2008 has been paid for. To put that in perspective, the planning and environmental policy group has a total staff of approximately 113 and available programme money of about £17.5 million.

1704. In comparison with our operation, the Whitehall-based Department of Environment, Food and Rural Affairs (DEFRA) and the Department of Energy and Climate Change (DECC) have 317 staff and a pretty massive support budget. Of more direct interest is the size of the equivalent operations in the Scottish Executive and Welsh Assembly Government. Both have increased their staffing levels significantly in recent years to more than the seven that we have. Indeed, it may be better to compare the figures of five years ago.

1705. The Republic of Ireland's unit has around 11 staff and is more directly comparable to our own outfit. However, the Republic's unit has significantly more programme money with which to take forward its own actions.

(Inaudible due to mobile phone interference.)

1706. Chris McWilliams and David Latimer major on EU issues, including greenhouse gas trading schemes, to which there are many elements. The carbon-reduction commitment and communications more generally are the responsibility of Keith Brown and of Anne Trimble, who cannot be here. Adaptation and correspondence, which we will pick up on, are the responsibility of Michael McCallion and Paula McWilliams. Those areas reflect the three elements of our work, and we generally stick to those.

1707. We have split our work into two areas. I appreciate that the Committee is more interested in policy support, but before I talk about that, I should say that we have a strong role in supporting Ministers, as policy branches tend to. That includes dealing with any correspondence about climate change that people want to discuss with Ministers, providing suitable briefing, looking at inquiries, including this one and those such as the Royal Commission on Environmental Pollution and the Committee for Agriculture and Rural Development's recent inquiry. Several issues may be pertinent at a particular time, and there is always something on the go.

1708. Assembly questions for oral answer and questions for written answer on the climate-change agenda also come through this office, and, for a small unit dealing with climate change, it is no surprise to hear that that is quite high on the agenda. For example, one third of all questions for oral answer that come to the Department on the environmental side refer to climate change in some shape or form. The Committee's interests in the issue, and those of other MLAs, must be taken into account, and we help the Minister to deal with that. That takes away a lot from the proactive nature and the policy-development side that we have to deal with.

1709. With regard to policy support, the Climate Change Act 2008 has played an important role in sorting out the legislation that was to be brought to the Assembly through the Committee and the Executive in the first instance. The Committee on Climate Change, which is an independent body, was set up when the Bill was enacted, and we are involved heavily in that. When that committee produces reports, it consults with us in the development process. It keeps us briefed, and, likewise, we keep it briefed on what is going on in Government generally. The whole apparatus in Whitehall is trying to respond to the sorts of issues that that committee is involved in, and we are involved heavily in all that.

1710. The carbon-reduction commitment is making progress, and the Committee has been in correspondence with us on that recently.

1711. The EU mitigation policy side has expanded over the past couple of year. It deals with issues such as the energy and climate-change package. There is an international move towards what will happen as a result of the international deal in Copenhagen and the European Union emission trading scheme (EU ETS). That work is looking at 2012 and beyond. The current phase will take us to 2012, and it is considering the effect that the EU ETS will have beyond that. The EU will be involved in negotiations on that, and Whitehall will consult the devolved Administrations on many aspects of it. We must be clued in to the aspects that might be specific to Northern Ireland and contribute to the Whitehall negotiation process.

1712. There will also be communications on climate change. However, due to the lack of resources, that has not yet extended out into the public interface. Principally, it is about communications in Government and how that is aligned.

1713. The adaptation policy has taken on a bigger role in Europe and in the UK. The EU White Paper 'Adapting to Climate Change' was published in April 2009. Obviously, the UK will contribute to that White Paper and will seek comments from us, the Welsh and the Scots. We have been engaged actively on those types of activities. Last week, the UK climate projections were launched in London, and again, we were involved developing those and worked on their launch.

Subsequently, we have to try to help others in Government and elsewhere to know how to use and benefit from those UK climate projections.

1714. Under the Climate Change Act 2008 and the EU White Paper, a UK risk assessment must be in place by 2011, and we have been on the London-based steering group examining that. Ultimately, we will be looking for material that will help us to produce a Northern Ireland adaptation programme. However, in order to do that, we need to be consulting and bringing the matter through the political and the Assembly processes. Ultimately, that project will come to fruition.

1715. Inventories form part of our work. We monitor Northern Ireland's performance and work out projections to determine the state of play. A lot of that is farmed out from London to private consultants. However, when they do their analyses, we have to quality assess them. We use the statistical expertise that we mentioned earlier, and we can call upon it to interpret aspects of the analyses and ensure that the inventories are common sense.

1716. We have also carried out a specific piece of work from our own resource. We have a small amount of consultancy support, and we use it to make projections of progress on emissions to 2025, which is the target year that is specified in the Programme for Government. It was not a specific requirement in the same way as the sustainable development strategy, but we thought that if there is a target, someone will ask what progress is being made towards meeting it. We have that bit of the apparatus in place.

1717. The Chairperson: How does that work in assessing other Departments? When you gave evidence previously, it was apparent that any initiatives were primarily, if you will forgive me for saying so, based on your personal, rather than strategic, information. How do you ensure cross-departmental input and assessment so that people comply with and meet those targets?

1718. Mr B Forde: Let me be clear: this is a technical piece of work. We get information from the inventories, and that tells us the levels of emissions in various sectors, up to the latest reported year. We have put together a tool. We base our projections on certain policy assumptions, and we populate that through the European-type policies, the carbon-reduction commitment and all the policies that you would expect, including through Northern Ireland policies such as building regulations and so on. We try to work out how that will look when factored out to 2025, based on population —

1719. The Chairperson: I am trying to establish the input of other Departments.

1720. Mr B Forde: They do not input into it; it is a technical matter. There is no such thing as a road map to 2025 showing what any specific Department must do to deliver its target. The only element that we can call on is the sustainable development strategy, which predates devolution, although the Executive chose the target for that. The identification of specific actions is fairly limited. It identifies some actions up to 2012, for example, electricity efficiencies, or DRD might introduce a more sustainable transport system. However, nothing is allocated to specific Departments.

1721. The Chairperson: The flaw in the overall governance system is that there is no strategic overview.

1722. Mr B Forde: That is correct. I was about to mention PSA monitoring, which is the closest that we have to such an overview, but even so, it is fairly limited. Only three Departments are identified as being required to take specific action, and even those requirements are vague. Requirements are not comprehensive in any shape or form.

1723. We support the establishment of the Northern Ireland Climate Change Impacts Partnership. The Committee has taken evidence from that group in the past. Any amount of policy is made that we cannot foresee and that we must get involved in. For example, Whitehall was consulting recently on the definition of the term "carbon neutral". In many ways, that definition is a moveable feast. Hence, we took contributions from Departments to try to inform that consultation. The implication of Whitehall deciding what is meant by "carbon neutral" is that, by default, devolved Administrations will follow suit.

1724. We assist both London and Northern Ireland Departments with policy. When they consider new policy initiatives on climate change, they might call on us for help. Typically, they will call on us for input so that we can give them some perspective.

1725. I hope that that gives you an idea of the extent of our work. The second subject was about how we feel about decision-making in Northern Ireland specifically. In our own Department, we are the main advisers to the Minister of the day on climate-change policy. That is not exclusively the case, and issues could come from the Republic of Ireland or the Northern Ireland Environment Agency on, for example, waste, Planning Policy Statement 18 or other different matters. However, the majority of policy direction on climate change comes from the Department.

1726. Looking beyond that, the Committee has also asked about the Department's role with the Executive. The very fact that climate change is a cross-cutting policy means that, under the ministerial code, the Department has to engage with other Departments, as it has done already with the legislative consent motion for the Climate Change Act 2008 before it was enacted, the report of the Committee on Climate Change in December and the carbon-reduction commitment (CRC) policy. Furthermore, under the ministerial code, the Department is also duty-bound to advise the Minister when he must go to the Executive. That happens, and it is an ongoing process. Therefore, that is our yardstick for acting.

1727. Outside the Department, we have a "part-input", which is a technical, Civil Service term that means that although we are not wholly accountable for climate-change policy, we make a suitable contribution. I picked out the three previous examples from any God's number, because they have passed my desk and the branch's desk in recent times. For example, the Department of Enterprise, Trade and Investment (DETI) will be bringing its strategic energy framework, which will deal with the development of its energy strategies, to the Executive in the next week or two, and DRD asked us recently to examine its regional development strategy and strategic review. Those are just some examples of what we do; I have not given a comprehensive, detailed description of our work.

1728. As the Committee examines whether we can take on a broader role, I stress that the way that the apparatus of Government has been set up here ultimately means that the Department of the Environment does not drive the other Departments on climate change. The policy line on climate change, with which the Committee is probably quite familiar, is that there is collective responsibility in the Departments for achieving a Programme for Government target. However, there is no agreed road map for that.

1729. Most of the agenda of the Department's working relationship with the other devolved Administrations in the UK is driven by what happens elsewhere and through daily contact in various shapes and forms. However, there are formalised arrangements on specific policies. For example, in relation to the Climate Change Act 2008 and how the Department relates to the Committee on Climate Change, concordants and framework documents have been produced that describe the relationships between us, Whitehall, the other devolved Assemblies and the Committee on Climate Change. There are also documents that the current Minister of the Environment signed off with the Committee on Climate Change when it was established on 1

December 2008, as well as the documents that were signed by all the Ministers in each devolved Administration that is affected by the passing of the Climate Change Act 2008. In some other cases, there are formalised arrangements, such as structures on specific projects, but many of the other arrangements are made on an ad hoc basis where someone sends an email or makes a telephone call. In those cases, the Department tries to help first of all and then sees where it can progress.

1730. We have far fewer formal links with our counterparts in the Republic of Ireland, and we are most likely to meet with them when we are asked to host joint events. For example, earlier in the week, an event was in the Canal Court Hotel in Newry to discuss the water framework directive and its relationship to climate change. At that event, my counterpart in the South and I spoke to those who are dealing with that directive in a specialist way. The main political point to be made for us, as officials, is that climate change is not a mandated area in the North/South Ministerial Council; instead, it is dealt with in British-Irish Council meetings, where it has been discussed actively in recent years. However, the event in Newry dealt with an EU directive, so it was held under a requirement of the North/South Ministerial Council. Therefore, there are not always straight lines through some of the demarcations. We have good relationships, as you would expect, and we lift the phone and so forth whenever necessary.

1731. I hope that I have helped to address the three main areas in which you were interested: the extent of our operation; how we work; and how we interact with others in our Department and beyond these shores. When considering expanding roles, my main conclusion as an official is that is hard going to meet the existing requirements on the agenda, partly because we are a small unit that has to service the office of the Minister. Although climate-change policy lies, in a narrow sense, with DOE, I must point out that the Programme for Government targets go way beyond our Department. That means that collective responsibility exists.

1732. The Chairperson: Thanks very much, Brendan.

1733. Mr Weir: I found what you said about the wider links with the UK Government and DECC interesting. The Committee was in London recently as part of the consultation, and you mentioned Hilary Benn's announcement about projected targets. There is an issue about the role that the devolved Assemblies take in attempting to achieve the overall UK target. The information that was given to the Committee was that there will be a degree of negotiation between the devolved Assemblies and DECC on the share of the burden. Do you have a particular role in ascertaining the specifics of working out Northern Ireland's share for negotiating with DECC should be? Will the climate-change unit be the main interface with DECC, or is it a question of your providing some of the information to back up whoever will negotiate?

1734. Mr B Forde: As my presentation showed, our key involvement is in providing inventories and calculations and so forth. Equivalent units in the other devolved Administrations make the same calculations to work out what should be the Scottish and Welsh share of the targets. The negotiating role would naturally fall here, but the wider issue would involve more of a political decision and would require input from the Minister of the Environment and other Ministers.

1735. Mr Weir: If you like, you can provide the Committee with information on what we should be doing, what is achievable and what should be Northern Ireland's share of the UK target. When it comes to negotiation, would that be done at a political level rather than by departmental officials?

1736. Mr B Forde: Negotiation is definitely done at a political level, and that has been the case in the other Administrations.

1737. Mr Weir: Thank you; that was useful.

1738. The Chairperson: The special advisers have drafted a couple of questions, and I just want to read them into the record. However, I do not expect you to answer them now. Perhaps you would respond in writing.

1739. Mr B Forde: OK.

1740. The Chairperson: I will read them out to ensure that they appear in the Hansard report. You have answered some to a degree, but others may require more complete responses.

1741. How long has the climate-change unit been in existence, what is its budget, how many staff does it have, and what are their roles?

1742. Is what DOE has been doing likely to be enough for Northern Ireland to meet its obligations under the sustainable development implementation plan, given that the target is a 25% reduction in greenhouse gas emissions by 2025?

1743. Does the DOE consider that the sustainable development targets are sufficient to ensure that Northern Ireland contributes its fair share to the UK target for a reduction in emissions?

1744. Will the DOE introduce legally binding carbon/greenhouse-gas emission reduction targets in Northern Ireland? If not, how will Northern Ireland's contribution to the UK target be measured?

1745. Has the DOE approached the Committee on Climate Change to discuss targets, monitoring, reporting or action plans from a Northern Ireland perspective?

1746. To date, with what other Departments has the climate-change unit worked and on what particular issues?

1747. Does the DOE have sufficient data to enable it to measure progress against targets? We touched on some of that earlier. What cross-sectoral work is the DOE doing to ensure that other Departments are able to contribute to their own sectoral targets when those are established by the Committee on Climate Change in September?

1748. Has the DOE done any work to assess the impact of other Government policies and strategies on climate change, adaptation and mitigation? Is the DOE doing any work on integrated communications to tie climate-change issues to related areas such as waste, energy, health and transport, with specific target audiences such as the public, business and other Departments?

1749. What consideration has the DOE given to delivering, encouraging or supporting cross-departmental working so that a better overall programme can be delivered to address multiple issues and identify early, cheap actions? Finally, is the DOE working with others jurisdictions, and, if so, what conditions are taken into account to ensure that Northern Ireland needs are also taken into account?

1750. We will leave this document with you, or have it emailed to you, and the Committee will get its response in due course. Thank you for your time.