Northern Ireland Assembly

Committee for Enterprise, Trade and Investment

OFFICIAL REPORT (Hansard)

Electricity Policy Review Part III - Grid Connections: SONI and EirGrid

5 June 2014

NORTHERN IRELAND ASSEMBLY

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Members present for all or part of the proceedings:
Mr Phil Flanagan (Deputy Chairperson)
Mr Steven Agnew
Mr Sydney Anderson
Mr Sammy Douglas
Mr Gordon Dunne
Ms Megan Fearon
Mr Paul Frew
Mr Fearghal McKinney
Mrs Sandra Overend

Witnesses:

Mr Michael Walsh	EirGrid
Mr Dick Lewis	SONI
Mr Robin McCormick	SONI

The Deputy Chairperson: Briefing the Committee today are Michael Walsh, the director of future grids at EirGrid; Dick Lewis, the manager of transmission access planning with SONI; and Robin McCormick, the general manager from SONI. You are very welcome to the meeting. Robin, I presume that you want to make an opening statement, and then we will follow that up with questions and answers.

Mr Robin McCormick (SONI): Thank you very much for the opportunity to be here again to update you on what we are doing and what we are responsible for. We have provided you with some slides, and I will maybe just run over the first few and then hand over to Dick, who will talk a little more specifically about connections.

We are the independent transmission system operator (TSO) and market operator. I emphasise the word "independent", because we are required to ensure that a lot of commercial businesses, such as generators, have access to the network. We do that in a non-discriminatory way. So, we do not have any commercial interest in generation or supply, because we have to make economic decisions about how generators are scheduled, which determines their income stream. We were part of NIE until 2009, when we were purchased by EirGrid. EirGrid is based in Dublin and is one of the commercial semi-state organisations. It did basically the same job as we did. It made sense, because the electricity system on the island operates as a single system anyway, and we had previously worked very closely with EirGrid in setting up the electricity market and managing the flows on the transmission system.

I will talk about the changes that there have been since then. A certification process has been initiated by Europe, where each of the TSOs in Europe was certified. As part of that process, the regulators on the island, acting as the single electricity market (SEM) committee, determined that SONI should increase its responsibilities and include the transmission planning function. That was a responsibility that NIE had up until a few months ago. At the beginning of May, we took on that responsibility and brought over from NIE a group of staff that previously were responsible for that. We believe that that is a positive step forward, because it means that the planning function is now integrated with the operation of the system and that some of the operational issues that we have can be brought into the decision-making on what is needed on the transmission system.

We are responsible for the safe, secure, economic and reliable operation of the Northern Ireland transmission grid and the all-island transmission network. We now make all the investment decisions on the transmission network and liaise and interact with the regulator for approval for that. We continue to operate the wholesale electricity market, which sets the price of electricity for every half-hour trading period. We are also involved in dealing with connections to the transmission system. If a large-demand customer wanted to connect to the system, they would come along to us and we would provide them with an offer of a connection, in the same way as we would with a generator. Most of the generators that are connected to the transmission system are conventional generators. We have generator owners at AES who look after the Kilroot and Ballylumford power stations. ERB looks after the Coolkeeragh power station, and there is another single-transmission connected wind farm at Slieve Kirk. The vast majority of the wind that is connected to the system is connected to the distribution system, which NIE looks after. However, we have to manage the impact and effects of all the wind that is connected to the system, that is, the individual wind farms and the larger wind farms.

The second slide gives you a diagram of the transmission network. It does not have any of the distribution lines on it, and you can clearly see that the demand in Northern Ireland tends to be over on the east side and that the power stations that feed into it are largely over on the east, at Kilroot and Ballylumford. As we look forward, we see that the majority of the wind that is connected to the network is on the west side of the Province. Therefore, there is a need to build up the infrastructure to accommodate all that wind.

The network diagram also shows the folk who we interface with. As I said, we work with the regulator, which runs a price control process. So, every one, three and five years, we have to present to the regulator a business case for how we anticipate we need to run the business for that period. Ultimately, it prepares a proposal back to us. We are currently on a price control period that runs out at the end of September 2015. When we go back and propose our business case for the next five years, we will include the new responsibility for transmission planning and the capital investments that are associated with that. That previously would have been a task that NIE would have undertaken.

We work closely with NIE, because the transmission system is connected to the distribution system and because of the range of connections that happen on the distribution system that impact on the operation of the wider system. So, we have visibility of the output of the distribution-connected wind farms, and we have to take that into account as we look at demand each day and at the forecast wind generation output. We then have to schedule the larger conventional plant around that.

The next slide shows the connections relationships, which I will quickly cover. The users of the system are either generation or demand customers. We have a grid code that all users of the transmission network have to comply with. The generators need to have a licence to generate or a demand customer has to pay a connection charge for the infrastructure that is required to link their site to the transmission system. Generators and suppliers pay tariff charges for using the transmission system; they are called transmission usage of system (TUOS) charges. The regulator has to secure income for NIE and Solicit approves all the connection charges and the tariffs that result in money flowing from supply companies through to generators.

On the transmission side, the regulator has chosen to operate in a manner that means that each transmission project is approved, and capital approval is granted for individual projects. That has been the subject of a lot of debate through the previous NIE price control process, and it has yet to be tested in the context of our taking on the transmission planning role.

We make connection offers to anyone who wants to connect to the transmission system. We have to liaise with the distribution-connected generators and NIE to ensure that there is adequate capacity in the transmission system. Also, I will say that, in our role as market operator, the wind farms that are connected to the distribution system have to register on the market so that they can gain their income from operating in it.

So, we will look at connection offers and decide how best to connect the generator or the demand customer, and we will use the connection charges that NIE has provided. That is because, at the end of the day, it delivers the infrastructure and the cases for those connection offers. As I said, we then collect the use-of-system tariff. We have to pass some of that money on to NIE, which actually builds and constructs the network.

That gives you a bit of a sense of who all the parties are and what responsibilities they have.

You can see the existing position on the slide showing connections activity. We have indicated the existing generator site connections in Northern Ireland. That includes what I mentioned and the Moyle interconnector, which effectively acts as an input to our system. We currently do not have any demand customers connected to the transmission network, and, as I said, the vast majority of renewable generation is connected at the distribution system level. We have around 580 megawatts of wind power connected to the distribution system at the moment, which we have to take account of as we operate the system day by day.

Some policies and processes need to be finalised before further work on up-and-coming or proposed connections can be done. That has been brought about largely because of the difficulties that some of the developers had connecting to the system and because of the offshore opportunities that exist. We have First Flight Wind looking to build a substantial offshore wind farm off the County Down coast, and we have further offshore opportunities on the north coast.

As we manage all those things, there are standards that we have to apply to ensure that everybody is treated the same, that the transmission system retains its integrity and that we do nothing that would compromise security of supply to customers, which is significantly important.

So, that is an overview of the connection process in Northern Ireland. I will now hand over to Dick, who will give you a little more detail on what we do.

Mr Dick Lewis (SONI): Good morning, everyone. My name is Dick Lewis, and I am responsible for all-island access planning in SONI. I want to take you through some of the specific arrangements that apply and, hopefully, stimulate conversation. As Robin indicated, SONI is the party that any generator that wishes to connect in Northern Ireland must apply to. To connect, they must provide certain specific information about the nature of their equipment and plant, and that is as much to do with working out the impact that that may or may not have on the system and on other users and what is required physically to connect the party. So, there is a structured process, whereby the party provides information and SONI acts on it to provide the suitable connection arrangements.

Robin mentioned standards, and it is important that the standards that existing customers meet must continue to be met by other parties connecting. A party connecting cannot be to the detriment of existing customers, and we have a role in ensuring that. Fundamentally, SONI will provide certain information to the connecting party. It will provide an offer outlining the proposed connection arrangement and the associated charges. It will provide information about the contractual arrangements that the party will have entered into to operate in the market in Northern Ireland and Ireland on the Northern Ireland system. It will let the party know about the access that that generator has to the system. I will talk a bit more about the term "access" in a minute. If the access is limited, that impacts on their operating and payment regime. So, that has to be known, and we try to give an indication or forecast of what restrictions or output reductions there may be for that particular generator.

The charging arrangements in Northern Ireland are consistent with the SEM market, so it is an all-island charging arrangement and is described as "shallow". In other words, the connecting party contributes only to those assets that are required to connect it to the system. If other reinforcements are required on the system, those costs are not paid by the connecting generator; they are generally paid by the TUOS customers in Northern Ireland.

At the minute, a large number of generators have connected. Some that have already connected do not have what we describe as firm access to the network; in other words, there is not sufficient capacity in the backbone network to allow them to export their full capacity. So, there is already an identified need for infrastructure investment in Northern Ireland, and I think that the Committee has been made aware of that in different scenarios and settings. There is a security of supply issue post-2015, which, I believe, you are also aware of, and there is a requirement for the North/South interconnector development and the restoration of Moyle capacity. I will go through that in the next while.

The structure of conventional generation in Northern Ireland is the three large plants that Robin referred to: AES Kilroot; AES Ballylumford; and ESB Coolkeeragh. That is the major generation plant and the fossil fuel plant. So, when renewables are not available, that is the plant that keeps supply on in Northern Ireland, and the grid is there to support those plants and, indeed, the renewable plant. We are looking at a change in the portfolio of generation. As Robin indicated, we have the dual role of planning the network to meet the needs of that portfolio and to be able to operate that system network and generation effectively and efficiently so that security of supply standards are maintained. We have a Delivering a Secure, Sustainable Electricity System (DS3) programme that aims to look at that, and that looks at the percentage of renewable wind that we can have on the network and at the amount of conventional generation that we can switch off at any point in time, etc. That programme has been running now for a couple of years.

The next slide is maybe a little bit busy, but, as I said, the major generation plant is in the Larne area and up in the north-west. The majority of renewable wind is in the west, so, at any point in time on the network, the amount of generation must exactly match consumption. So, drawing your attention to the circle on the map, which happens to be around Omagh, if any generation that starts there is not initially consumed by demand in Omagh, it starts to move from west to east along the existing transmission lines. So, we have to test. When I talk about access, there has to be sufficient capacity in the network to allow the generation to flow. So, once it meets the local demand, it starts to move along the transmission lines to meet other demand as it goes along. We test it in the locality to meet it, and we then test it as it moves in the system. If there is still generation that is in excess of local demand, we have to test to see whether we can export it on the Moyle or on the North/South connection. The reason for the arrows is because the system is used west to east. Once all demand in Northern Ireland is met, the generation can be exported to Scotland on the Moyle connection or to Ireland on the North/South connection. At every juncture, we are looking at an individual connection and judging the amount of other generation that already has access to the system and whether there is any headroom or scope for the new generation to use the system. The rationale of that is to identify what further investment is needed on the backbone network to take it forward. Only the investment that is absolutely necessary to allow that generation to flow in certain situations is considered.

The next slide is all about chargeability, and I will go into that in some more detail. In the single electricity market, there is a concept of shallow connection. The aim of that is to be non-discriminatory to all parties. In other words, they choose where they wish to establish their generation or demand, and, based on that choice, they are charged from that point to the nearest point on the existing network. The customer pays 100% of that connection arrangement. Another term that you have probably heard is that the charge is the "least cost technically acceptable" solution. In other words, the technical solution that is the least cost is the charge that is levied on the connecting customer. The costs that SONI uses to pass on to the customer are NIE costs, because that is the structure of the industry. NIE is the asset owner; it is the party that determines the cost of those assets. We identify what is required, NIE tells us, "That will cost x", and we pass that cost on to the connecting party.

At this point in time, NIE is the only licensed party in Northern Ireland that can construct transmission assets. So, all assets that are over 110 kV must be constructed by NIE. The process is contained and advertised in the SONI charging statement, which has been consulted on and approved by the regulator. The network and connection arrangements must comply with certain standards. We already covered that. That standards document has been in existence for quite a while, and it is actually under review at the minute. Furthermore, if deep reinforcements are required to sustain or meet the level of generation, they are identified by SONI, approved by the regulator and constructed and delivered by NIE. The costs of those deeper assets are recovered through the use of system tariff, with money being collected by SONI and passed through to NIE. Again, that process is regulated by UReg.

Hopefully, that has covered the arrangements for connection and what we try to achieve in dealing with them.

Mr McCormick: I will finish off. When I started, I mentioned that we had taken responsibility for the transmission planning function. We believe that that is a positive step, and it is something that we have advocated for some time. We were pleased that the regulator identified that as a piece of work that needed to be transferred at the time of certification. From 1 May, we have been responsible for that. We are now taking stock of the plans that NIE had in place. We are reviewing those, and we will be taking the major transmission projects forward. For example, the North/South project would have been the responsibility of NIE until the end of April, but it is now a responsibility that we have. So, it will go into the Planning Appeals Commission (PAC) as a SONI project rather than a NIE one.

As I said, the delivery of the transmission infrastructure is key and critical in meeting the 2020 renewable targets. We have quite a lot of wind connected to the system, and we also have quite a number of offers to connect to the system to allow us to meet those targets. However, we cannot deliver that to the benefit of customers without the appropriate infrastructure investment.

All generation that is greater than 5 megawatts has control links to our control centre to give us the facility to alter the output, if that is required. Those generators operate within the single electricity market. There are some issues to do with the amount of smaller-scale generation that appears to be there. There is quite a high incentive through the ROCs that are available to single turbines, and I know that there is quite a lot of activity with NIE. There are a number of connections, and there is a perception that the connection costs are high. For us, when there is a large amount of wind generation that is outside our radar, it creates another concern for us in managing the demand on the island.

There is a changing mix of generation, so we are moving from a system where we had conventional generation. We instructed when it should start, how long it would take to warm up, when it would come on to the system and how much generation we would output at any point. We have moved to a much more complex web of inputs, with distributed generation — we talked about the single turbines — and wind farms, which are must-take generation. As an island, we are well ahead of the curve in managing some of the technical difficulties that arise when you have intermittent generation on the system. Our DS3 programme is there to ensure that we balance all the needs of the system and find solutions that other people have not had to address yet. I am sure that, as more wind is connected to the system, we can run a safe and secure transmission system and continue to keep the lights on. That is important for customers, whether they are residential, commercial or industrial.

Thanks for your attention.

Mr Dunne: Thanks very much, gentlemen. I think that we all agree that we need to keep the lights on at the most economic cost. We have had several discussions here over the past few weeks, as you are probably aware, with various interests in the energy market. One of the big issues that came to light was the time that it takes to get these projects on the ground, and frustrations about that have been expressed. One of the big things concerns planning permission. Certainly on the larger schemes, it is our understanding that NIE — I know that you are not NIE, but you obviously work very closely with it — will not get involved with the potential developer in any real sense until planning permission is in place. What is your attitude towards that? Could you give us some information on that and your angle on it? There is an argument that more should be done in parallel. I understand that smaller schemes run in parallel but the larger ones do not. Time delays are built in that, to us, are unacceptable.

Mr Lewis: The planning permission requirement was straightforwardly arrived because it was a neutral position not imposed by the utilities — by either NIE or SONI. As I hope I indicated to you, there is a limited capacity on the network, so there is a requirement to queue. Not everybody can get access to the network all the time, so, as parties were applying for connection, there was a need to identify when a party was in place and when it was moving ahead to take up its access. Planning permission was seen as a proxy for a date-order queue of parties presenting themselves. In other words, if you have been developing your project for a period, someone else should not be able to come in and get capacity that you have committed to. The acquisition of planning permission was seen as a proxy of intent by the developer that they were moving ahead. Therefore, by accepting the terms of their connection offer, and having planning permission in place, they were able to book that capacity on the network. That is theirs; it is nobody else's. So, in a situation of scarcity, it was a means of allocating that scarcity ahead of development. Similarly, as those parties connect with that planning permission, that date order is maintained so that you can then prioritise the transmission infrastructure reinforcements required to meet those parties' requirements. You are, effectively, using the planning permission as a proxy for the allocation of scarce resources.

Mr Dunne: It is almost an assurance or commitment from the developer.

Mr Lewis: Yes.

Mr Dunne: I understand that, in other parts of the United Kingdom, that is not the case. It is not strictly a requirement.

Mr Lewis: Not strictly. It was a requirement that evolved in Northern Ireland as the industry evolved. It was seen as a way of allocating resources. Different regimes have evolved in Ireland and in GB.

Mr Dunne: I understand that your role has changed, and you now have a greater interest in the whole planning process of the structure. Will you review the planning permission policy? Will you at least give a commitment that you will look at it?

Mr McCormick: We have always had responsibility for the connection process.

Mr Dunne: Yes, but just clarify how your role has changed since April.

Mr McCormick: From April, we make the investment decisions on what needs to be built on the transmission system to support any demand growth or a combination of the distribution-connected wind farms and any applications for demand or generation customers to connect to the transmission network. Basically, it is the reinforcement and development of the transmission system. We will be responsible for that and make the investment decisions on projects that will lead to that. The North/South project is a good example of a project that is required to benefit customers, because customers currently bear costs associated with that.

Mr Michael Walsh (EirGrid): You mentioned the delays associated with waiting for the connections, and Dick gave a very good overview. It is a scarce resource. When a lot of projects are trying to move out and one gets to the point of planning permission, it is a very good sign that the project has a strong chance of proceeding. Dick mentioned the arrangements in Ireland, where we have a queue of 25,000 megawatts of wind projects that want to connect. Some have offers; others are waiting. That is over five times the peak demand on the island. Trying to work out which are credible projects and which are not is very difficult. I do not think that we have done as good a job in Ireland as has been done in Northern Ireland with the planning permission requirement.
You asked what commitment we can give to try to deal with the delays. One thing that we will very clearly do in our new role is have a good look at where there are areas with a huge amount of interest in developing renewable energy projects, such as the area around Omagh. We will look at the network capacity between Omagh and the east of the Province to see whether we can identify new investments that might help to unblock that capacity so that when projects come along and have secured planning permission, we would be able to make access available to them more quickly. The other is probably a broader policy matter, which we can look at ourselves.

Mr Dunne: The frustrations were highlighted last week, when wind farm operators told the Committee of 10-year delays in getting a connection. To us, that is totally unacceptable. Obviously, there are various reasons for that, and major modifications to the grid were made over those 10 years, and other work had to be done. However, they said that, overall, it took about 13 years from lead-in time to connection. That is a very long time. I understand that developing equipment and so on requires lead-in and process time. However, to us, sitting here in Stormont, it sounds totally unacceptable. Now that you have this new role, do you see where you can try to make a real impact on planning times and the delivery of connection?

Mr McCormick: The onus is on us to look at how we can deliver transmission infrastructure projects more quickly. That is a huge challenge to us because, traditionally, it has taken a long time for transmission projects to come through the process, and they support the individual programmes of work that NIE will do to physically connect those generators to the system. That is our job and role. We recognise the challenge, and we will look at the priority given to certain projects to try to move forward as quickly as we can.

The Deputy Chairperson: Dick, Gordon raised the issue of the two-track process: the need to get planning permission first and then apply for grid connection. Has an alternative to that process been considered?

Mr Lewis: There has been a series of consultations on the process. The term that we use is "firm access quantity". As I explained to Mr Dunne, a connecting party is in a queue. As parties connect, they are allocated a firm access quantity, which is based, first, on having planning permission and, secondly, on application date. That process evolved over a period. I accept Mr Dunne's comment that the time taken is unnecessary. The consultation process that I refer to took three years, but that established a process in Northern Ireland. That process also impacts on the connecting parties' remuneration through the single electricity market. In other words, if they have a firm access quantity,

they are rewarded in a certain way if their output is reduced for whatever reason. So there is a linkage between what the network can do, the arrangement whereby the generator is connected and the payments that they get through the single electricity market. To unwind all that takes a considerable period.

A difficulty then arose because, within the queue process for planning permission, different parties came along that did not quite match the onshore wind farm connection arrangements. A different sort of plant wants to connect in Larne, and offshore equipment will have a planning regime that is different from the onshore planning regime. In an onshore situation, it is straightforward: you apply for planning permission, the parties are there and they have been going through the process for a long time. The offshore parties will have to go through a different regime, with different planning and arrangements offshore and onshore.

At the minute, we have one regime for onshore, which has been chugging along slowly.

Mr Dunne: Very slowly.

Mr Lewis: If we throw that up in the air and seek to revise it, it will create another hiatus for the whole industry, and there will be no progress because so much of the structure depends on the firm access quantity: remuneration, position on the network and backing up investment requirements. However, it has got us to a point at which we can move forward. If we change or break it at this point, I do not know how long it will take to fix it.

The Deputy Chairperson: Have you considered any alternatives?

Mr Lewis: A consultation process is ongoing. In that, we look at a hybrid solution, whereby different parties may not require full and final planning permission before they can apply.

The Deputy Chairperson: Will there then be a maximum period within which they will have to be connected to the grid or lose that reserve capacity?

Mr Lewis: Any connection offer is for a fixed period. If whoever is being connected does not act within a certain period after the acceptance of terms, the offer becomes null and void. That concept is already built into offers.

The Deputy Chairperson: What is that period?

Mr Lewis: It can be five years. In other words, if you accept an offer now and do not develop within five years, your offer expires.

The Deputy Chairperson: Is that five years after receiving the offer?

Mr Lewis: Yes.

Mrs Overend: Thanks for coming to the Committee today. We were told by Action Renewables that the monopoly for grid connection was held by NIE, but that is now your responsibility. Is that right?

Mr McCormick: NIE is the only body that can do the construction. It has a monopoly on that element of it.

Mrs Overend: We were told that, in GB and the Republic of Ireland, people can build the connections themselves. Is there a possibility of that happening here? It might mean that they can be built more competitively.

Mr McCormick: The word used to describe that is "contestability" — there is a new word for you. We see opportunities for others to be involved in the construction of assets, but the rules of the game have to change to facilitate that. There are some complications. You must have some party that, ultimately, will take on the job if no one else does it. You have to balance the competitive element with an assurance that it will be delivered ultimately.

Mrs Overend: How could we progress that? Who can progress or push that?

Mr Lewis: I understand that it is in the regulator's forward work plan for consultation during this year. That would be an arrangement whereby the regulator puts forward proposals for how third parties would be suitably licensed and have the legal ability to erect assets across third-party ground etc. The concept would have to be that, on completion of construction, to meet suitable standards, it would be handed back to the asset owner: NIE. That is the model in Ireland, as you referred to. It is referred to as "contestability". There are models out there that can be looked at. As I understand it, it is incumbent on the regulator to put forward those proposals.

Mrs Overend: Does SONI have any role in that at all?

Mr McCormick: We would have to work within those new guidelines. If there were a connection offer, it would have to go out to more than just NIE for a quote.

Mrs Overend: Do you have any indication of a timeline for that work by the regulator?

Mr Lewis: I believe that it was to be this financial year.

The Deputy Chairperson: The one that has just started, or the one that is over?

Mr Lewis: The present financial year.

Mrs Overend: So we have a fair bit to go yet.

Mr Frew: A lot of the developers — Simple Power being one — come here and say that, if NIE allowed developers to access its geographical information system (GIS), it would greatly assist them in targeting areas where they could connect to the grid at the most productive cost. Why is it such a closed shop? What is your opinion on access to that information? Why is NIE so guarded with that information when we have seen throughout the world, particularly in GB, that that information is accessible?

Mr Lewis: I can answer from recent experience. As part of the process of the transition of the role from NIE to SONI, one of the areas of interest to us, as the group responsible for planning, was to get access to the maps and information that you refer to. NIE is happy to share the information with us as a licensed entity, but Ordnance Survey is not. We have to submit to Ordnance Survey and get a licence or copyright permission for all Ordnance Survey-based maps in Northern Ireland, which, I understand, involves a significant sum. NIE's topographical network information is overlaid on Ordnance Survey maps. So there is and has been a copyright issue about NIE giving out Ordnance Survey information to third parties. It is almost as simple as that. We will have to incur an upfront cost in the region of a quarter of a million pounds and ongoing copyright fees.

Mr Frew: Is NIE willing to give you the information, and then Ordnance Survey is the stopgap?

Mr Lewis: I would not describe it as a stopgap. It is a cost.

Mr Frew: Is the NIE information readily accessible to a developer? It might give it to you because you are licensed and you have a role to play as SONI, but will it give that information to developers?

Mr Lewis: I am not aware of NIE's position on that.

Mr Frew: What is the difference in Ordnance Survey on mainland GB? Surely it is the same system there.

Mr Lewis: I do not know. I am not aware of what the arrangements are in GB for the sharing of information. If it is just network topography, that is one thing. If it is the network on fixed geographical locations on an Ordnance Survey background, there are other parties to consider.

Mr Frew: Surely the Committee could look into that, Chair, if Ordnance Survey is such an issue. My next question is begging to be asked: why does Ordnance Survey have to be used? Surely a blank piece of paper with the grid and the information on it would suffice.

Mr Lewis: It depends on what you use it for. If you want to identify equipment and routes, the spatial information is critical. If you are looking at a tower position, you want its position relative to a road. The Ordnance Survey background gives that detail.

Mr Walsh: Every year, we publish a forecast statement that includes information on how much transmission capacity there is at different points in the network. That is publicly available and published on our website, but that is only one part. As Dick mentioned, Ordnance Survey covers a lot more, but the capacity in the transmission system is published annually.

Mr Frew: On the cost of grid connections, some witnesses stated to the Committee that the grid connection is between 20% and 50% of the total capital costs, compared with around 5% in GB and the Republic of Ireland. How can you explain that? Why are the costs so high? Is it down to one company having a monopoly?

Mr McCormick: The charging statement is an approved document, so these are charges that NIE has determined are appropriate, and the regulator, who has oversight of them, has agreed that they are reasonable. It is probably down to the specifics of individual connections and the route required for them to be connected to the system. I know that the regulator is keen for everybody to pay the cost of their connection as opposed to an average cost. Therefore, that may mean, in some circumstances, that an individual connection appears to cost a lot.

Mr Walsh: I accept that the connection cost is, on average, probably more expensive in Northern Ireland than in GB or Ireland, but I would be surprised if the differential was in the order that you mentioned. One of the other factors is, as Robin said, the amount that is chargeable. In Northern Ireland, the policy is, as Robin mentioned, that, if you are a generator requiring an amount of work to be done to connect, you are charged for all of that work. In Ireland and GB, certain elements are not fully charged for. In Ireland, for example, if you need some remote work on a station 10 or 15 miles away, you may not be charged for that. That will be recovered through the general customer base. In Northern Ireland, the policy decision was that, if the generator drives that cost, it should be charged to the generator and not passed on to the general consumer. That could drive some elements of the differential, but I suspect that a number of different issues are also at play.

Mr McCormick: Some describe it as "deep/shallow".

Mr Frew: It is very clear that there is a system in play and that 100% of the cost of the shallow connection arrangements goes to the developer. Is SONI content with the costs quoted by NIE, in that they reflect less value? If there were to be a competitive field, with other companies coming in to construct grid, how would the cost change?

Mr Lewis: Certainly, I believe that SONI, in its new role, will have to be able to justify costs identified by NIE and challenge them as and when necessary. I see that clearly as our role. Contestability, as I understand it, is more a matter of a presentation of a cost for which NIE would deliver a project, and, if the developer feels that they can do it at a better cost, that is the developer's choice. So it is not like a competitive arrangement. NIE would still have to charge on the basis of a regulatory, approved cost base. I do not think that it would be appropriate for NIE to vary its costs to compete with a developer who wished to do it. It gives developers the choice: have the utility do it at a cost or do it themselves, if they believe that they can do so more cheaply and to the standard required for the utility to take it over. I am not sure that it is a directly correlating, competitive situation.

Mr Frew: I understand what you are saying. There are two systems: it could be developer-led competition on the basis of how much of the grid they could install; and there will always be the Big Brother situation, whereby NIE builds the grid.

Mr Lewis: The other very important factor is that when there is a developer-led construct, the developer is much more in control of the overall project timelines. Going back to the delays discussed earlier, that is a very important factor.

Mr Frew: You talked about how the state of flux could introduce delays. The RP5 has been agreed. How much more change can RP5 take without that causing delay, or do we have to wait until RP5 is finished?

Mr McCormick: The process for RP5 is complete through the Competition Commission referral etc. That did not include all of the transmission investment. So we have to take our plans for transmission investment directly to the regulator, and they will approve it on a project-by-project basis. It appears that it has a significant impact on NIE, and we will have to wait to see what our interactions with NIE are like, given the constraints that they now have.

Mr Frew: How do you see RP5 being sold? Are you fearful? Do you fret, or are you confident that we can move on and adapt a system that is fit for purpose?

Mr McCormick: We have had a very good relationship with NIE. We needed to work with it to deliver projects and to operate the system until now, so I do not expect the commitment to waver. A lot of the issues that NIE had were with its proposals for things that it wanted to do in the distribution network. So I am hopeful that our ability to engage with them and deliver will not be impacted on by what has happened on the regulatory side.

Mr Frew: You talk about the gird demand being in the east and the demand in the west being for wind and other renewable energy. There is a tidal project on the north coast, off Rathlin. If successful, it will have to connect into the grid at Kells — a distance almost the length and breadth of north Antrim. To me, that looks like failure. How would you describe it?

Mr Lewis: I would not go so far as to say that they absolutely have to connect into Kells. If they connected into Kells, they would have readier access to the higher voltage network. The network from Kells to Coleraine, via Limavady to Derry/Coolkeeragh is 110 kV, which is a lower voltage. On the conversation that we had earlier, looking at this pragmatically, you would either build to the nearest point, which is Coleraine, and significantly reinforce the lower voltage network or bring the higher voltage network further up the country, or you go straight to the higher voltage source, which is Kells. That could be a developer-led choice, because they would be the party paying the cost. They could be prepared to pay the shallowest connection charge, which would be to Coleraine, and then you would need to reinforce.

There is no way that 100 megawatts or 200 megawatts of renewable generation off the north coast can be consumed in Coleraine. I think that the demand in Coleraine is of the order of 10 megawatts overnight and up to 50 megawatts or 60 megawatts during the day. So, it is just a magnitude thing. You have to get the generation to the demand, and that is not in Coleraine.

Again, the corridor from Coleraine to Limavady is constrained. A number of other wind farm parties are connecting in that area, so they already have access to that network; they have paid their money and booked their access. So, if tidal comes along, where does it go? Robin made a point earlier about renewable generation being must-take. To the extent that it is possible, that generation gets absolute priority on the network, and we must allow that generation to run. So, how do you separate or differentiate between two must-takes? Does must-take tidal get priority over must-take wind? As I say, you get into a whole complex situation there.

I think that it would be incorrect to articulate that they can only connect to Kells. Kells is certainly one of the options that we are looking at, and we are in the midst of doing feasibility studies for north coast offshore renewables.

Mr Frew: OK. Thank you very much.

Mr McKinney: May I just come in on one point, Paul? One of the companies that gave evidence referred to a much bigger disparity between the Republic of Ireland and UK grid connection and the grid connection here. Would that suggest the need for further interrogation of NIE's costs, notwithstanding the Utility Regulator's oversight of them? Action Renewables said that the connection cost is between 20% and 50% of the total capital cost, compared with around 5% in GB and ROI. That suggests that somebody out there has knowledge of a very significant disparity.

Mr McCormick: I think that we have identified the issues. There is a difference between the way in which the policy has been applied in Northern Ireland and in Ireland. The charging statement is an issue for the regulator. He has to be convinced on behalf of customers that those are reasonable costs. So, those are the two avenues to address.

Mr McKinney: Yes, but do you think that there should be further interrogation?

Mr Walsh: Dick and I have very good visibility of the costs in Ireland. Based on the numbers that we are seeing, the cost is probably closer to 10% or 12% of the total project capital costs. Those are the sorts of numbers that we are looking at for new connections. Does that sound about right, Dick?

Mr Lewis: Yes.

Mr Walsh: That is why I said earlier that I can understand why there probably is a difference, because there are more items chargeable. You are scrutinising all the costs in the system, and that is a good thing. We in the industry are committed to trying to be more efficient, and I think that that is worthy.

Mr McKinney: It is also about transparency, is it not? You can refer to the fact that the scalability of the work is slightly different or whatever, but does that transfer to costs directly? Is there a need for greater transparency?

Mr Walsh: I think that contestability has probably been the answer in Ireland and GB, because, ultimately, if you do not like the cost that has been quoted to you, you have the option of going and procuring someone else to do it. Ultimately, once you have a monopoly provider, even if there is transparency, there is always an element of, "Is this the best value? Could you have procured something better? How are you doing your business? Could you have scheduled differently? Could you have organised the work differently?". What contestability does is to open all that up, so you have an option, if you believe that there is a better cost out there and that you can do it in a more efficient way. It seems to have been the best resolution of the issue in Ireland and GB.

Mr McKinney: And would you welcome that here?

Mr Walsh: I would, I think. Subject to the fact that it has to be put into a system that works and a set of arrangements that is workable and practical. It has been a positive development in the industry elsewhere.

Mr McKinney: OK. Thank you.

The Deputy Chairperson: Paul raised the issue of the geographical information system. Do you think that NIE should share that information with the developers if the developers can sort out whatever problem exists with Ordnance Survey?

Mr Lewis: Sorry, I was speaking in a historical way. NIE provides information to developers day in and day out. It provides information for mark up drawings about where its assets are for people who are working in the streets of Belfast. It is required to do that. The issue has always been how it shares that and the basis on which it shares that. NIE uses a geographical Ordnance Survey-backed system. For developers anywhere in Northern Ireland, it provides information about working in the local vicinity and the electrical equipment there. That is a health and safety issue and that information is provided. I am not aware of what information developers claim that they are not getting.

The Deputy Chairperson: OK. We will send you the Hansard report of the meeting at which they raised that and maybe you will respond to us in writing.

Mr Lewis: I can only reply from a SONI perspective.

The Deputy Chairperson: That is fine.

You said that the connection charging arrangements are aligned across the single electricity market. Is there much of a difference in the charging costs in the North when compared with the South?

Mr Walsh: I do not think that we have had the opportunity to go through that in any level of detail yet, but we will look at that.

The Deputy Chairperson: As regards RP5 and the final price determination, do you think that enough funding has been allocated to NIE to carry out grid investment in the near future?

Mr McCormick: I mentioned before that the process meant that the focus was on the distribution system charges that NIE has full responsibility for. If there are investments to be made in

transmission, they have not been included in the outcome from the Competition Commission, and it will be for us to go directly to the regulator and to seek approval on a project-by-project basis for transmission infrastructure.

The Deputy Chairperson: Have you gone to the regulator with any projects yet?

Mr McCormick: No.

The Deputy Chairperson: Why is that? Is it because you have only just taken it over?

Mr McCormick: We have only just taken it over.

The Deputy Chairperson: Did NIE bring many proposals to the regulator for upgrading the grid on a project-by-project basis?

Mr McCormick: There was a recent approval for £40 million-plus for some —

The Deputy Chairperson: That was to bring it up to 27% of the —

Mr McCormick: Yes.

The Deputy Chairperson: But, since then, there have been no applications. So, the regulator has not turned any down.

Mr Agnew: I want to move on to the grid investment and follow on from the Chair's comments. There is a feeling among some that the Competition Commission and, perhaps, the regulator put too much emphasis on the short-term costs to consumers. We know that the Utility Regulator has, as did the former Competition Commission, a responsibility for sustainability, cost and security of supply, but there is a feeling that the balance that has been struck is wrong. What is your view on that?

Mr McCormick: It is hard to give a view on the distribution system. We are focused on trying to deliver on the transmission system, and I suppose that we have to test the regulator on the investment that is required on the transmission system. We have the plans that NIE produced. We will review those and will go to the regulator on a project-by-project basis for approval for the development of the transmission system. That has to be our focus.

Mr Agnew: I put the question to NIE last week that the approach seems very responsive. It is responsive to say what is coming forward project by project. Presumably, you engage with developers and have some sense of what is coming down the line. We have a 40% target. Maybe it is just my ignorance, but can there be a proactive approach to the upgrading of the grid to get to the stage where developers can come on and access the grid with foresight about what is likely to come forward?

Mr McCormick: That is a sort of catch-22. The regulator has taken a view that transmission infrastructure, because it tends to be lumpy investment, should be looked at on a project-by-project basis. We have not tested the process, but it seems incredibly complicated to us to have to go on an individual project basis. We are of the view that the transmission infrastructure should be managed through a strategic programme of investment over 25, 40 or 50 years and that to do it on a project-by-project basis is micromanagement.

Mr Agnew: OK. So, it is not my ignorance then. That is exactly what I think would be the best approach.

On the challenges we face with everything that we have talked about, with renewables etc coming on the grid, what is the potential for smart technology?

Mr McCormick: From a transmission perspective, we recognise that there is a need for us to continually look for different ways of doing things. One of the benefits that has accrued from EirGrid taking over SONI is that we can now do that on an all-island basis. We can look at solutions. EirGrid has some experience of looking for new technology to be used on infrastructure to better utilise existing circuits; in other words, to upgrade a circuit route rather than to build a new line. Some new

technologies have been adopted, and there is potential for further delivery, but we are not quite there with it.

There are things that we think that we can do on the transmission system. We are working with the industry to help small businesses to have innovative ideas. We facilitate them through pilot schemes, work with them and allow them to draw some of our expertise on power system operation into their business development stream. Michael has been involved in that. Do you have any comments on that, Michael?

Mr Walsh: Yes, I think that you captured it very well. As you mentioned, we have had huge success in Ireland. Obviously, developing new transmission is very challenging for financial, social and all sorts of other reasons. Our strategy is to try to reuse and upgrade the existing network, and some of the new technology that we have used has allowed us to double the capacity of some existing transmission lines without changing the physical appearance or structure. Essentially, we have done that by just changing the wire to something with a larger capacity.

The smart grid innovation hub is a programme that we have on the island of Ireland to encourage local businesses to come along and try out new solutions and new technologies. That gives us access to great ideas that help us to do our businesses more effectively, but it also helps us to play our part in trying to boost the enterprise benefits that we are getting from this. As we are integrating renewable energy at a faster pace than many other parts of the world, we are using new technologies earlier. They are the same technologies that will be required in GB in maybe five years and in mainland Europe and the US in 10 years. People and companies that have the opportunity to trial those, interact with them, improve them and hone their skills on them on this island will have a huge advantage in the future.

We have been quite proactive in going to industry events and open days and trying to promote it. We have worked with Invest NI, representatives of which are on the steering committee of the smart grid innovation hub. We are very positive about it, and I think that the industry is starting to show a bit more interest, as is Queen's and the IT industry. We are really excited by it, and I think that you are right to identify that as an area with huge potential. A lot of the solutions that are coming through are maybe at a slighter earlier stage than we might have thought, so there is a couple of years' work with a lot of them to try to get them to the stage where they are ready for deployment.

Mr Agnew: I was quite nasty to NIE last week. I cannot remember my exact wording, but I suggested that it was conservative, afraid of innovation and a barrier to progress. I picked that up from different stakeholders.

Mr McCormick: I think that there is a balance to be struck, because to facilitate that sometimes requires access to money. We need to have an open environment to promote some of that innovation, and that requires all the parties involved — the Department, the regulator and the utilities — to work together to try to find those solutions.

We have been pushed into an arena where we have to be innovative. The increase in wind on the island has meant that we have to be innovative. We have pushed boundaries that other utilities have not got to in order to allow the amount of wind that is on the system at the moment. So, we are up for trying to be innovative. That is one of our core values. To deliver it is a challenge. People have to think outside the box. Remember that we have to keep the lights on, so we cannot do ridiculous things. We have to try to think smart and do things smart in the context of —

Mr Agnew: Would you see NIE as a barrier in any way to doing that?

Mr McCormick: No.

Mr Agnew: OK. You mentioned the tidal projects, some of their challenges and the progress needed in those on the north coast. What about the First Flight project? What challenges does that present and are you confident that we can see timely progress in grid development to facilitate it?

Mr Lewis: I would like to see timely progress on it. There has been open discussion about the offshore arrangements in Northern Ireland. The Utility Regulator determined that existing arrangements onshore should apply to offshore out to 12 nautical miles. That brings to the fore the present utilities grappling with how, can or should they do offshore works, because, in my mind, the result of the Utility Regulator's decision is that the connection point for the offshore wind is offshore.

That potentially brings NIE into offshore assets, offshore asset ownership and offshore asset installation, and that has yet to be resolved. We are working closely with First Flight Wind to come up with solutions that are potentially outside the pale of normal arrangements. We are trying to push that envelope forward, but we keep bumping into policy, precedent and history. Some of the allegations you may have thrown at NIE would probably be applicable to the industry because we do things in a certain way and this is different.

I would like to think that we are approaching it in as open a way as possible. We have been active in trying to bring the debate forward and get solutions. I hope that First Flight Wind would say that as well if it had the opportunity. Yes, I very much hope that we are able to meet timelines, but you should not underestimate physically where the First Flight Wind site is and physically where the network is that it has to connect to. If you think that north coast to Kells is a big trick, east coast to wherever is equally difficult.

When you are talking about these major projects, if you are thinking in terms of consenting and planning for the project, historically in Northern Ireland it has been a sequential exercise. The project has planning permission and then along comes the infrastructure. That is not going to work for the like of a First Flight Wind or a north coast. So, we have to look at better ways of presenting the totality of the project and the benefit of the totality of the project, including the infrastructure. That needs to happen.

Looking at the difficulty we had with establishing transmission infrastructure in Northern Ireland, and the public opposition to it, we cannot ignore that public opposition when we talk about overhead line routes or underground cable routes across major tracts of Northern Ireland. There is opposition out there to whatever we may wish to do, and we should not underestimate that opposition.

Mr Agnew: You mentioned the decision of the Competition Commission affecting the network decision that is going to have to be made that it will have to be an offshore connection. What was it in the determination? Was it simply that that is a cheaper option? Is that what you are saying or was it a direction from the Competition Commission?

Mr Lewis: It was a policy direction from the regulator. There is nothing in the Competition Commission's finding for us.

Mr Agnew: OK, so it was the regulator.

Mr Lewis: Yes.

Mr Agnew: What was the rationale for that? Does that throw up extra challenges in bringing it onshore?

Mr Lewis: I believe that it does, yes.

Mr Agnew: And what was the rationale of the Utility Regulator? We can obviously put that question to the regulator, but, from your understanding, what was the rationale?

Mr Lewis: The options were to mimic the arrangements in GB, where the assets are provided by the developer and then handed over to an offshore transmission operator and then connected to the onshore transmission operator. They looked at that option and decided against it. They decided that they already had a transmission system operator and an asset owner in Northern Ireland, onshore, and that they could extend the present legislation to cover offshore. So, that was the solution that was offered. The outworking of that has not come to fruition.

Mr Agnew: OK. You mentioned public opposition. We are well aware of it, with the North/South interconnector and some of the issues to do with wind farms, particularly in the west. Is that anticipated to be substantial for these offshore projects? From what you say, it sounds like —

Mr Lewis: It is anticipated. It is not a reality yet, but it is anticipated. Wherever we set our foot, there appears to be opposition at this point. So, we are mindful of that and looking at ways to mitigate that, get round it and come up with a much more open and transparent solution to getting those routes.

Mr Agnew: I have one final question. NIRIG mentioned the fact that the sustainable energy interdepartmental working group (SEIDWG) has not met for around two years. A review of the SEF is currently taking place. Do you see that as a problem?

Mr McCormick: They made us aware that they were going to write to see if it could be re-instigated. We are open to discussing the issues in whatever forum there is. It makes sense to have an interdepartmental forum where people can discuss energy matters, so we are happy to participate.

Mr Anderson: Thank you for your presentation, gentlemen. We have talked about contestability, but I will touch on the competition side. We are told that NIE holds a monopoly for grid connections as part of the licence agreement. Do you wish to comment on what could be done to open up the grid and the market for better competition?

Mr McCormick: We have probably covered that under the discussion around contestability and where the facility could be made available to —

Mr Anderson: Could you expand a bit more on that and just tell us what you really see as a way forward here to open the market?

Mr McCormick: You have to go through a process to give people the opportunity, through a consultation process, which is what I think the regulator intends to do, so that there can be a discussion between interested parties that will put forward their views on it. We would certainly be open to the prospect of contestability. If that drives down prices, it will be all to the good. We have to make sure that there is a delivery mechanism to support that. Ultimately, there must be a body that will deliver the infrastructure.

Mr Anderson: Would you like to see this coming out into more open competition?

Mr McCormick: Yes, I have said that we would support the introduction of contestability.

Mr Anderson: OK. Another issue that you touched on in one of your slides is that of the delivery of interconnection capacity and the North/South interconnector. How important is the North/South interconnector to the security of supply post-2015?

Mr McCormick: It is hugely important. We have all recognised the importance of grid infrastructure, particularly the North/South project. Having the single interconnector at the moment means that costs are being accrued by customers because we cannot run the market and generation as efficiently as we should be able to, were we to have further interconnection. So, it is a must. You will be aware of some of the problems that there have been in trying to progress it, both North and South. Progress is being made with trying to get it into the Planning Appeals Commission schedule, and we anticipate that it will be in the schedule in early 2015. Circumstances in the South have delayed the application going in for the Southern portion of it. From our perspective, it is an absolute must. I have talked about some of the issues that we have at the moment. Post-2015, those issues will get more focused because some of the generators in Northern Ireland are proposing to retire generating units because they would have to spend extra money on them to comply with European legislation. We are working with the Department and the regulator to try to close that gap and to look for additional generation capacity to cover the period from the end of 2015 until the North/South interconnector is built. That has just gone out to interested parties to tender. We hope to be able to secure a contract by early autumn for the generation to cover that shortfall.

Mr Anderson: You touched on problems with progress, one of which is planning. Is there a bigger issue in the South with progressing the planning and even getting to a fast-track situation with the Government in the Republic? Do we see a difficulty there?

Mr Walsh: It was, hopefully, a hiccough in the very recent past. We, as a company, are completely and utterly committed to the project. It is an incredibly important project for the short-term security of supply in Northern Ireland from 2015 onwards and also for customers on the island of Ireland in the long term for energy security on the island. It is probably the single most important project that you can conceive of on the island for transition development and to improve matters for consumers, the industry and competitiveness. That was a theme in much of the discussion this morning. It is a project that will enable much better competition not just on but within the island of Ireland. It will allow

the east-west interconnector and the Moyle interconnector to have better ties and better operation from GB to this island, and it will allow the whole market to operate more efficiently.

The issue that we have run into recently is to do with the classification as a project of common interest by the European Commission. We were working on the assumption that the work that we had done would be classified as transitionary and that we would be allowed to proceed and then lodge it with planning. At the moment, that is not being allowed by the European Commission. We have been pushing quite hard in EirGrid, and the Irish Government have been very committed in trying to help to move that; they have been very supportive of the importance of the project. However, it has been classified as such, so we need to see whether the application, as it stands, meets those requirements. We are hopeful that that will be the case and that the delay will not be unduly long, but we are at the early stages of working through and seeing exactly what we are required to do. We, as a company, are very disappointed that we have run into that delay, but it is our utmost priority to try to move it as quickly as possible so that we can lodge a very strong planning application as early as possible. It is unfortunate that we have run into the delay at this time. I assure you that it is not due to any absence of commitment, urgency or importance on our side.

Mr Anderson: We could be in a situation of more hope than anything if we do not get it pushed forward with Europe and in the Republic. If you manage to get it turned around, can the Government in the Irish Republic get it fast-tracked so that it moves quickly? Are these major issues, or is it just a blip?

Mr Walsh: It is a procedural matter, not a fundamental matter that will undermine the project. It is just a series of new procedures that needs to be gone through before we can submit the planning application. The risk of not doing it is that the planning application would get challenged and would fall, and then you would run into a much more substantial delay, so we are just being very careful to make sure that we do not leave a weakness in the application that an objector could take advantage of.

As for the fast track, it is a strategic project, so it will be heard by An Bord Pleanála. It is a single one-stop shop. It needs time to go through, but it will be a strategic project. Once we submit it, it goes into a rigid timeline. There is openness for people to consult and make observations. There will be a public hearing on it, so it just goes through a fast-track process in planning appeals as soon as it is submitted. What we are doing at the moment is making sure that, once we submit it, it is legally robust and covers all the requirements of the project of common interest (PCI) that apply to it.

Mr Anderson: There is a certain amount of time. Have you a view on the timescale that it would take even to get it to the stage that you are talking about, when others can say that they are supportive or otherwise? You must have an idea of some timeline that you need to aim for.

Mr Walsh: It has just been designated, so we are at the very early stage or working out exactly what we need to do. The big risk to us would be to do it too quickly and leave a weakness that causes a problem in the planning hearing.

Mr Anderson: What do you mean by "too quickly", Michael?

Mr Walsh: I think that we are talking in the order of months. In the best case, a short number of months, but it could take us a bit longer than that if we have to do more substantial work.

Mr Anderson: Would it be a year or more?

Mr Walsh: We definitely hope not.

Mr McCormick: It is difficult to be prescriptive about timelines when external bodies are dictating the pace. We are concerned about it.

Mr Anderson: It is certainly a big concern.

Mr McCormick: We are meeting An Bord Pleanála to understand what process needs to be gone through and the steps that need to be taken to get it back on track. It is the nature of such projects. There are hurdles that you have to get over. At the moment, the Northern portion is in a holding

position. There are clear issues in the South that could equally flip across to the Northern side once we get into the Planning Appeals Commission process.

Mr Anderson: But you hope not.

Mr McCormick: We hope not.

Mr Anderson: OK. That is a big issue. Thank you for your comments on that.

The Deputy Chairperson: With regard to the interconnector, surely there is somebody in EirGrid who has a bit of understanding of how An Bord Pleanála works and could give you some advice on that.

Mr Walsh: I think that there are. One of the people who does it is an ex-inspector from An Bord Pleanála; he has been chairing, and our chairman was a previous chairman of An Bord Pleanála. The project of common interest is a new requirement from Europe, so it is about working with it to understand what the requirements are. North/South had been through a certain process to date before the PCI regulations came into place. What we need to understand from An Bord Pleanála is how it will interpret the PCI regulations and say, "Yes, this, this and this piece of work that you did on North/South are consistent with the PCI regulations", and, if there is anything outside that, to understand that. It is a new process that we are going through with it, but we are having good engagement with An Bord Pleanála and there is good cooperation there.

The Deputy Chairperson: Specifically about the North/South interconnector, do you accept that there is widely held political and community opposition to the erection of an overhead connector in the proposed area.

Mr McCormick: We are aware of that.

The Deputy Chairperson: How do you propose to manage those concerns and that local opposition?

Mr Walsh: For the part of the network in Ireland we did a substantial consultation on a number of projects towards the end of last year. We got an awful lot of feedback from communities, and we have put in place a number of initiatives to deal with that, including the provision of community funds along the length of the interconnector. There is no framework in place for that in Northern Ireland at the moment, but, in Ireland, we believe that it will be an essential part of trying to mitigate, to some extent, community concerns. Nevertheless, we do not underestimate the difficulty of bringing a project like that through the planning process and the degree of public opposition that we may run into as we develop the project.

The Deputy Chairperson: Reviews were announced by the Department of Communications, Energy and Natural Resources in the South on Grid West and the other proposals. Will such a review take place on the North/South interconnector?

Mr Walsh: There was a previous review of the North/South interconnector. An Oireachtas Committee in the Dáil set up an independent panel to look at the underground option for North/South. So, that process has already been done for the North/South interconnector, and there are no plans to redo it.

The Deputy Chairperson: Refresh my memory: what did the international expert panel say?

Mr Walsh: It concluded that the cost of an underground solution — I forget the exact number — would be in the order of, I think, three times the cost; it gave a range.

We have identified — this is one of our big concerns — that the underground solution would have to use different technology that would not give the same quality of service or capacity. You would be paying three times the price for a service that would not be as good. The ability of the North/South interconnector to connect the two parts of the island and make them work as a single system is what will deliver the substantial cost savings to consumers. Those savings would not be available to the same degree from an underground solution.

The Deputy Chairperson: Did that differential in price between, I think, €170 million and €590 million, include impacts on land and property values?

Mr Walsh: I do not believe that it did, but I would need to double-check.

The Deputy Chairperson: Do you think that the erection of the proposed North/South interconnector would have a detrimental impact on land and property values in the region?

Mr Walsh: No. We have done reviews, and estate agents have looked at it, and the evidence seems to indicate that it would not. The community funds that I mentioned earlier are largely to deal with disruption through construction activities rather than any devaluation of land, in and of itself.

The Deputy Chairperson: In a hearing in the Oireachtas, your chairman acknowledged that pylons could affect the value of properties and that the issue needed to be addressed. So, your chairman is saying that it will or could impact land and property prices, but the international expert panel, when it looked at the issue, did not factor those figures into the price determination, because it is a fact that landowners and homeowners will have to be compensated. I think that EirGrid has said that it will have to buy property to make a go of this. Therefore is it not in your best interest to look at the proper business case for this, instead of half-doing the job and not looking at all the information available?

Mr Walsh: Just to take it back to the Grid Link and Grid West proposals where we have looked at how we might do it, the costs for compensating landowners and buying land if you go within a very short distance of a house are probably low single figures as a percentage of the overall project cost. So, you will not bridge the gap between overhead and underground through those costs. Yes, they are an important consideration in the overall analysis, and we do not want to dismiss them, but they are not likely to be a material factor in that discussion. Compensating landowners would account for less than 5% of total project costs.

Most of the costs for an overhead transmission line come from the physical structures and conductors; it is very expensive electrical equipment and high technology. It has to be robust. You are trying to build an asset that will have a 40- or 50-year life, be very reliable and robust and deliver high-capacity electricity. Therefore the main costs of the project are captured and included.

The Deputy Chairperson: Is there any reason why, of all the work that has been done to date, no work has been carried out to assess the potential of putting it underground as part of the A5/N2 road development?

Mr Walsh: The work of the expert panel — I have not read the detail recently, so forgive me if I am not completely clear on it — looked at the cost of the HP DC solution. As I understand it, it made the assumption that a favourable route would be found for that. It looked at the cost of converter stations and the cable. So, again, it worked on the assumption that a favourable route would be available for that delivery. I think that it was predicated on the basis that there would be an easy route available, which could be a new motorway or road development. However, there can be sensitivities. Sometimes, road authorities do not like you going through roads, so cross-country can be easier. As I understand from recollection, the independent panel assumed that a suitable venue would be available for the site selection. That is my understanding of that analysis.

The Deputy Chairperson: Is it technologically viable to put it down ducts that will be along the side of a main arterial route?

Mr Walsh: For a solution of that magnitude, it would be a new installation; it is a substantial cable installation — even the trucks that carry it are huge. It would be a new trench, and you would have to look at having it properly insulated and separated. Therefore, it would not be something that you would put down existing ducts that are available for a line of that capacity.

With regard to technical feasibility, it comes back to the issue that the underground solution would have to be the DC technology, which does not give you the service that you need to bring the two parts of the island together to work as a single system. At the moment, what is happening in very simple terms is that, if you have a loss of the existing North/South interconnector, the two systems will essentially start acting separately. To make sure that both of them stay secure, you need to keep enough reserve capacity in both parts of the island so that customers are not impacted by that. If you build a second North/South line overhead, you have the assurance that if there is an issue on either the existing line, the new line or a generation facility on any part of the island, there is enough there and you can reduce the total amount of reserve that you need to keep, and that has huge savings in running costs for operating the power system. A DC line does not respond in the same way; it needs

an automatic control system to do it. These things happen very fast on a modern power system, and there is a risk that you will not get enough response and it will not be able to have the two parts of the system operating as one. Therefore, the technology that is coming in will not give you the service that you are looking for that delivers the value and the savings to customers that an overhead solution would, and that is probably the biggest technical issue that we would be concerned about for an underground solution.

The Deputy Chairperson: Was that reflected in the international expert panel, or did it look at cost only?

Mr Walsh: You mentioned cost earlier. The panel looked at the installation costs and compared and found on that basis, and it referred to the different technologies that would be applied and the different characteristics of the technologies. I do not think that the panel quantified that in detail.

Mr McCormick: I do not think that it recognised the operational issues that would arise from a high-voltage DC solution.

Mr Douglas: Most of my questions have been asked and, I hope, answered, but I have one quick question. Some witnesses talked about investment in the grid, and the question arose about who should be responsible for that investment. What are your views? What is your experience of investment in the grid in other countries? Who generally tends to pay for it?

Mr McCormick: If I have picked up your question correctly, the investment that we are talking about is reinforcement of the network and facilitating all connections for renewables, etc. It is the higher-capacity transmission network grid. Traditionally, it is paid for through a transmission system operator (TSO) function, so the model that we now have is common across Europe. Ultimately, customers pay a tariff to cover its cost over the lifetime of the investment. What we are doing here is no different generally from what happens across Europe.

Mr Douglas: You are saying that that is what happens in Europe.

Mr McCormick: With regard to the issues that we described about the delivery of large infrastructure projects, they have difficulties similar to those that we described with actual delivery on the ground.

The Deputy Chairperson: Unless there are any other questions, I think that that is it. Thank you very much for your time.