

# Committee for Enterprise, Trade and Investment

# OFFICIAL REPORT (Hansard)

Electricity Policy Review Part III (Grid Connection): Northern Ireland Electricity

29 May 2014

### NORTHERN IRELAND ASSEMBLY

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Members present for all or part of the proceedings: Mr Patsy McGlone (Chairperson) Mr Steven Agnew Mr Sydney Anderson Mr Sammy Douglas Mr Gordon Dunne Mr Paul Frew Mr Fearghal McKinney

Witnesses: Mr Michael Atkinson Mr Peter Ewing Mr Joe O'Mahony Mr Robert Wasson

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**The Chairperson:** Briefing the Committee today are Mr Joe O'Mahony, managing director; Mr Robert Wasson, asset management director; Mr Michael Atkinson, head of generation connections; and Mr Peter Ewing, deputy managing director of regulation. You are very welcome. It is good to see you all again. Thanks for being with us. You are seasoned hands at this. As you know, the flow of the meeting is a 10-minute presentation followed by a question-and-answer session with members. Is it you, Joe, who will start? Please continue.

**Mr Joe O'Mahony (Northern Ireland Electricity):** I think you have our presentation. At the outset, I will say that the network charge on end user bills is around 20% to 25% for domestic electricity. For large energy users, it is around 10%. Every five years, the Utility Regulator reviews the prices that NIE is allowed to charge for its network services. The RP5 price control applies from the period from 1 April 2012 to 30 September 2017. As you know, it was referred to the Competition Commission (CC) in April 2013. The CC's final determination was published on 15 April 2014. The CC agreed that it was a suitable case for reference. Very little of the Utility Regulator's determination was not revised by the Competition Commission. The final determination brought closer alignment of the regulatory framework and reporting arrangements with Ofgem, the GB regulator. We very much welcome that.

There was no retrospective adjustment to NIE's regulatory asset base. The Committee will recall that there was a view that NIE had double-charged its customers. After an exhaustive investigation, the CC found no evidence to support that. The return, the weighted average cost of capital, is set at 4.1%, which is in line with recent GB determinations. There will be a significant ramp-up in network investment and rolling programmes and in the asset replacement programme as a result.

Expenditure to support renewable generation and interconnection is subject to approval by the Utility Regulator on a project-specific basis. So, the decision of the Competition Commission will not impact on the connection of renewables or the 2020 targets with regard to funding. The regulator can approve that outside of that mechanism.

There was no allowance for network performance improvements, which are basically smart grids, and remote control on rural networks, or for increasing the resilience of the 11 kV system, which is a rural system around the Province, against major events such as ice accretion.

My colleague Robert Wasson will now cover renewables.

**Mr Robert Wasson (Northern Ireland Electricity):** Thank you, Chairman and members. If you will just bear with me for five minutes or so, I will go through some of the more specific renewables-related matters. You also have a larger pack that we might refer to in the discussion. Of course, we are happy to have further engagement with members after today's session. Just let us know what you might need in that regard.

We will start by looking at the basic question of whether the 2020 targets are achievable. Two things are required. First, the market has to bring forward enough developers and projects. That does not seem to be an issue to us. We will see some figures on that later. On the supply side, projects are coming forward. That is our view.

Secondly, those projects have to be connected to the grid. That raises two issues. The first is the cost of the grid reinforcement. You may recall from our last meeting that we mentioned a total overall cost figure of around £500 million, which was made up of deep reinforcements to our transmission system at both 110 kV and 275 kV and also for the North/South interconnector. With regard to the funding of that, as Joe has mentioned, there is a mechanism under our price control for us to bring forward projects on a project-by-project basis for approval. So, there is no issue around that, but ultimately the regulator has to make a decision on each of those.

The second issue around grid development is planning and consents. As we have seen in a number of projects, both North and South on this island, planning can be difficult. It has been very challenging for the North/South interconnector, as we all know, and it will be similarly challenging for some other elements of grid reinforcement that are necessary to enable the 2020 target, particularly investments that will be required on the 275 kV network. That is the higher voltage network that you typically see on pylons.

Before we go any further, I would like to give a quick definition of what we mean by large-scale generation versus small-scale generation. If you would like to have a look at slide number 3, I will talk to that for a second. By large-scale generation, we mainly mean wind farms. They tend to have an output of typically about 10 MW to 40 MW. To put that in context, 5W would supply a small town. That gives some idea of the order of that. Quite a bit has happened in that regard. We have commissioned 31 of those wind farms already. They have been connected to the network in Northern Ireland. That is a total of about 552 MW as things stand today. In addition to that, there are about another 42 schemes in the pipeline, so there is quite a bit of activity there. Those other schemes are at various stages. Some are still in the planning process and some have made their connection application to us. That is large scale.

Small scale is the explosion of activity that we have seen around the Province, particularly over the past couple of years. Typically they are single wind turbines, usually in a rural setting. Typically it is a situation where, for instance, a farming family might put up a single wind turbine. In a lot of cases, it is really a pension that somebody is putting up rather than a wind turbine. They tend to be less than 250 kW, which is a quarter of a megawatt. There are also some anaerobic digesters, which tend to be less than half a megawatt. We have connected about 250 of those around the Province. The total output is about 65 MW.

A point to make — and we heard SSE making the same point before us — is that, in a way, there is a bigger "bang for the effort buck" from large-scale wind farms. If you have, for instance, a 40 MW wind farm, that is the equivalent of dealing with almost four times that — 150 or 160 — small scale. So, if you can connect large wind farms, it gets you towards the 2020 target quickly.

We have quite a bit of activity happening at the moment, particularly in the last year or so, on what we call microgeneration. Typically, this is a situation where, for example, somebody installs solar panels on their home. They fit and inform, so they do not apply to us as such but tell us afterwards. This is

really taking off exponentially. At the moment, the run rate is about 2 MW per month going on to the system with those, so there is a lot of activity around that. That is just a quick overview of what we mean by large scale versus small scale, because we will probably use those terms throughout the morning.

Going back to our slides, it is important to understand the difference between the transmission and distribution networks and the challenges we have with those. Those networks enable the connection of large and small scale renewables. I will take transmission first. It is about our 110 kV and 275 kV systems. Typically the 110 kV systems are on double wood pole structures. We will all have seen those around the countryside. The 275 kV tends to be on lattice steel pylons. An organised plan is in place for the reinforcement of those parts of the transmission network. I refer you to a slide on page 8 in the pack. Moving from the left to the right, we are showing what we call our short-term plan, which is now complete, our medium-term plan and a long-term plan. What is happening with these is that we are starting with the low-hanging fruit in terms of the investment that is needed to release capacity in the system. Gradually, as you move from 2010 to 2020, that becomes ever more expensive to do.

Our short-term plan cost a very modest £3-2 million and released quite a bit of capacity. To do that, we used some of the smart technologies which, again, you heard SSE talking about: special protection schemes and schemes to get more out of existing overhead lines. That released quite a bit. We are now in the middle of our medium-term plan. The overall cost of that will be about £60 million, and we have approval for most of that from the regulator. That will get us to about 1,000 MW capacity connected versus the 1,600 MW or thereabouts that we will need for the 2020 target. So, we are well advanced down this road as well. By our calculations, we are enabling about 645 MW at the moment versus that 1,600 MW total.

In terms of where we are versus the 40% target or, indeed, next year's 20% target, we are at about 16%. The 20% target of energy from renewable sources will be delivered in 2015. That seems to be the case. Once you move beyond the medium-term plan, we get into more difficult types of investment. This is primarily where we reinforce that pylon 275 kV network, together with the North/South interconnector. Both of these elements are essential for delivering the 2020 targets. The cost of that is much more significant, so, in total, that is about £420 million. For that, we have two challenges. We have the planning challenges associated with that, and the regulator will also have to see the economic case for those investments. Those are the two challenges in getting us into that green territory from 2017 onwards and enabling the connection of renewables up to the 1,600 MW total, leading us to the 40%.

For the other piece of infrastructure that we are putting in place to connect renewables, particularly large-scale renewables, we use the approach of the cluster substations, and you will be familiar with that. Basically what happens there is we build a new substation, which collects the output from a number of wind farms that are in the same location. This makes a lot of sense, because it is efficient and reduces the impact on the environment. You are building fewer overhead lines, and it is scalable. It is supported by the renewables industry, the regulator supports it, it is clean and it has been consulted on by both us and the regulator. That approach is working well. There have been some difficulties in getting the roll-out of the first couple of cluster substations, but I think that that plan is running quite well. So we have built two of those, and we have four more that are at various stages of advancement. Michael can tell you a bit more about that if you would like. As I said, 31 wind farms are connected, and 40 more are in the pipeline. That is going fairly well.

In addition to that, you will be aware of the offshore developments. We have the potential for 200 MW of tidal and 600 MW of offshore wind. That will come in two phases, probably, on the offshore wind. On that front, we are engaging with the developers along with SONI. Again, those discussions are advancing fairly well. That will be another element that will help to get us towards the 2020 targets.

I will turn to distribution for a second. There is a slightly different situation on distribution. This is where small-scale generation connects to, mainly, our 11 kV network. These are the networks that you see on single-pole wood lines all around the rural parts of the Province. We have connected a lot of small scale. In fact, we have connected around 65 MW in total, and we have around another 85 MW in the pipeline. That is a total of about 250 schemes. So there has been a lot done, but those distribution networks were never designed for renewables at all. They were designed for supplying load. The networks date from the 1950s and 1960s, so they now need reinforcement. We are seeing congestion happening in two ways, particularly in the west and north of the Province. We are seeing congestion at 11kV and, ultimately, the correction of that and the reinforcement of the 11 kV to get round that issue has to be paid for by developers. That is leading to some fairly expensive connection quotations, which, in some cases, is making schemes unviable.

**The Chairperson:** This map that we have on the transmission reinforcement — is this the transmission reinforcement that is projected and needed, or is some of this ongoing or has some of it happened?

Mr Wasson: Can I ask, Chair, which slide you are looking at?

The Chairperson: This is page 9.

**Mr Wasson:** If you look at the heavy blue lines on the key on the top right hand side, we have medium-term plan developments, so that is what is happening at the moment.

The Chairperson: Sorry, I am just in black and white and grey here.

**Mr Wasson:** Oh, sorry. Keeping costs down, obviously, by printing in black and white. So, we have there some heavy lines and in the key it says "medium-term plan", so you can see that running from Tamnamore to Omagh and from Coleraine in the direction of Kells. Those are 110 kV reinforcements, which are ongoing.

There is some lighter blue shading in some corridors. You see that running, for instance, from the offshore wind in the direction of Tandragee and Castlereagh. You can also see a sort of a C ring to the west of the Province. Those fall into the longer-term £420 million developments that we were talking about.

The Chairperson: That's grand. Thanks very much for that.

**Mr Wasson:** To go back to the congestion issues on the distribution network, apart from the 11 kV issue that I just mentioned, we are also seeing a need for 33 kV reinforcement. That is the next level up in our distribution system. We are seeing the extent in some areas of small-scale renewables causing problems on the 33 kV system because power is flowing in a direction that it was never supposed to flow in. We have voltage control issues, and some thermal issues where lines would be running too hot and could cause clearance issues, so there is a safety issue there, and that has to be dealt with.

The other reason that that has to be dealt with is you have to be very careful that issues on the 33 kV system do not, in effect, mean that you are now starting to constrain off wind farms that are already connected to that system. That just would not make any sense at all, so we have to be careful of that.

As you may know from the final determination from the Competition Commission, there is not a mechanism to pay for that 33 kV reinforcement. As things stand, the only thing we would be able to do would be to change our statement of charges such that those costs would be levied on the developers, which, in most cases, would mean that their schemes might not be viable. That is something that the Utility Regulator is considering, and we have had initial discussions with them and that is to be worked through. That is the essence of the 33 kV issue.

I know we are probably running slightly over time, but I am nearly coming to the end of what I need to say.

Going back to the 2020 targets, it is important to realise that large-scale renewables are going to contribute the major part, probably 85% to 90%, of those targets. As I have mentioned, significant further investment of some £420 million will be needed to enable that final step. That needs regulatory approval, but also the projects have various planning challenges. The plan is clear to get to the 27%. Moving from the 27% to the 40% is more challenging.

Large-scale developers have voiced their frustrations at the length of time needed to develop the connection methodology — the cluster approach that I mentioned. We believe that that is the way forward. It has been accepted as making good sense by NIRIG, the developer body, the Utility Regulator and DOE planning. We believe that that is the right thing to do. We are focusing on making sure that we get those clusters approved and built out more rapidly than has been the case over the past few months. NIE's focus is on connecting those large-scale developers.

That is a quick tour through some of the issues around connection of renewables as we see them. We are happy to answer any questions you might have. **The Chairperson:** OK, thanks very much for that. I was going to raise your final point because you touched on it earlier: the focus for you being the connection of the large farms. Does that mean that you are prioritising them to the exclusion of others? I say that because I have some figures in front of me; I think the source is Ofgem. From 2010 to the present, the number of applications consented — those that received planning applications for the small-scale wind energy projects — was 779. The number of those connected is 55.

It appears from these figures that, for example, in 2011, it was 135 consented and five connected. In 2012, of 313 consented, 30 were connected, and in 2013, of 281 consented, 13 were connected. I presume that you would not dispute those figures. Are you prioritising those big wind farms to the exclusion of these other, smaller connections?

**Mr Wasson:** The straight answer to that is no, we are not. We cannot discriminate between different types or classes of generation, so we do not do that. Effectively, the large wind farms and the small-scale generation are connecting at different parts of the network so, in fact, there are different parts of our team dealing with that. For instance, Michael has a part of his team that deals with large-scale connections, and he has a different team to deal with small-scale connections, so those two things are being done in parallel.

**Mr Michael Atkinson (Northern Ireland Electricity):** I understand that some of the statistics you referred to suggest a lower-rate implementation of the smaller-scale schemes. It is fair to say that around 2012, while we were processing a large number of applications and agreeing quite a large number, there were some technical issues around the implementation of the small schemes. For example, earthing difficulties, which is a rather technical term, slowed down the process of getting the schemes through to final construction and to connection. Equally, the statistics show that from 2012 onwards, 2013 and into 2014, the pipeline of work of schemes that is now agreed and in the final stages of construction has increased quite markedly. That is why, for example, we are now seeing 65 MW of smaller schemes being connected and there is another 85 MW in that final stage of the delivery pipeline. That means that for small-scale schemes, the stats that will come through to Ofgem and the claimants against the ROCs will go up very markedly over the next six or 12 months. I understand the point from that statistical line, but I can give you considerable assurance that the volume of work on small-scale schemes going into the final delivery stages is moving to a very high level.

**The Chairperson:** The figures that I have here show that in 2012 there were 313 consented and 30 connected, and then it seems to dip worse again in 2013 to 281 and 13 connected.

**Mr Atkinson:** Those figures for 2013 do not tally with our numbers, to be honest, and I would suggest that we check those figures with you. Clearly, the number of megawatts we were connecting through 2013 was an order above 2012. I take the point, but we will get those figures clarified.

The Chairperson: We can get them checked for verification.

#### Mr Atkinson: Sure.

**The Chairperson:** We will move on to an issue which has come up, and I am sure that your PR people have been reporting it back to you. One of the key issues is the slowness in connection. It would appear from what people are saying that NIE has a monopoly in the grid connection market. Do you feel, in the interests of efficiency and of the economy, that that should be perceived to be the case?

**Mr Wasson:** We would fully support the introduction of contestability in grid connections. It has been done in GB and in ROI. I think that has worked well, and developers have sought it. We would welcome the Utility Regulator bringing forward proposals, and we will work with them to try to ensure that that is introduced without delay.

**The Chairperson:** You heard about the difference that it is making, not just to investors but customers, and how that could move on. We heard about the experience in England and the rest of the island here. I will read this to you:

"Next to turbine costs, grid connection costs in Northern Ireland are likely to be the most expensive component of installation jointly with construction costs. While this cost is around 10% in Great

Britain, the experience in Northern Ireland shows it to be closer to 20%, and in some cases 50% of the total cost of the installation."

Clearly there is something misaligned or way off kilter when that is happening. If you support contestability and more liberalisation of the capacity to do those connections — you feel it is a good thing — what is the obstacle to making it happen?

**Mr Atkinson:** Can I just pick up the point? You suggested there that the costs of connection in Northern Ireland are considerably higher as a percentage. I accept that and would like to qualify it, please. If we were looking at the figures back around 2012, before the network became very congested as it is now, typically the costs of connection for a 250 kW machine, which is the standard size, may have been in the order of £60,000 or £70,000. As a result of some of the technical issues that arise with congestion, where further reinforcement of the network is required, not just the immediate connection of the turbine, the costs that have been levied on developers have gone up markedly. So, whereas it may have been £60,000 or £70,000, now we frequently see average costs of maybe £180,000, and in some circumstances there will have been costs in excess of £300,000. I should clarify, though, that that is not because NIE is applying a high unit cost to the work. The actual work content for those connections in Northern Ireland on a relative basis is very high compared to what it is on the mainland, where they are dealing with less congested networks, basically.

**The Chairperson:** I will maybe flip that over to you. It appears, and we are hearing from other sectors involved, that in terms of actual efficiency in getting it done and costs of getting it done, the practice or the experience seems to be that it can be done more efficiently, more quickly and cheaper. Although you are presenting the case here for the North being unique, I am sure it is not that unique by comparison to some of the highlands or islands of Scotland, some parts of Wales or, indeed, other parts of GB — or the South, for that matter — where the network may need the same sort of capacity building as is needed here in parts of the Sperrins and places like that. I hear that argument, but I cannot see it being one size fits all.

**Mr Atkinson:** May I just try that again? The network in Northern Ireland is of relatively light construction; certainly in the west of the Province, it is of lighter construction. As a consequence of that, as the amount of generation that connects increases, reinforcement requirements will typically arise at an earlier stage and will be more significant. The other side of the comparison with the other parts of the United Kingdom is that as their networks have become more congested they have experimented in other methods of connecting wind turbines, whereas in Northern Ireland at the minute we still operate on the basis that the turbine is effectively guaranteed its full output under the network when it connects. On the mainland, where they have run into congested areas — we are doing some comparisons with the mainland at the minute — they have experimented with alternative methods of connection, offering choice and introducing smarter solutions, which means that the immediate connection costs in some of those cases are a lot lower than they are in Northern Ireland, because they get rid of the need for the same level of reinforcement. We will touch on some of that later on, but it is to give you one line of response on that one.

Mr Wasson: I will just add to that, and Michael might want to come in again. One of the things that we are doing in response to the industry is having a closer look at what has been happening in GB. We have been talking to the regulator about that and have its support, and we have been talking to DETI and have its support. Just this week, we talked to NIRIG as well about some initiatives that we are planning to roll out over the next six months or so. In effect, we are going to have a look at both large scale and small scale. If you take large scale first, we are going ask ourselves whether there are things that we can do to make the rule book work better in terms of queuing protocols and so forth. With regard to small scale, we are having a look at some of the technical challenges and asking ourselves whether there are approaches that we could take in Northern Ireland that might have been taken in GB, for instance, which would allow more capacity to be released from the system. We are going to take a hard look at an alternative to the firm connection type of approach where a developer would have the opportunity to have something that is less than firm, which would mean that they would have a lower connection cost. It has been done with some success by several DNOs. We have enlisted the services of a recognised expert from Electricity North West. We started some work internally with him in NIE, and we will be heading into a process of workshops to work through this with the industry, the regulator and, indeed, DETI, over the coming months, ultimately leading to a consultation on changes that would happen probably in quarter three -

Mr Atkinson: We would be looking for implementation in October/November time.

**The Chairperson:** I am asking you as the experts in this field, what is required to open up the market to more competition around connections?

**Mr Wasson:** You mentioned obstacles. Actually, there are no obstacles. This is an open door. Really, all that is required is for the regulator to define how it would like this to happen and to engage with us and the industry. From our perspective, our main concern is that, ultimately, we would have to take over any contestable connection that is built. We would take responsibility for that, and we would have to operate and maintain it. Clearly, our main concern is that that is built to the right standards and so forth, but that is all easily worked through.

The Chairperson: If they are doing it elsewhere, you would presume that the companies coming in would be sufficiently skilled to do it.

**Mr Wasson:** Yes, but that can be verified. There is a model in terms of how this has been done elsewhere. It has been in the Republic successfully for quite some time, and it is also in GB, so that model can be followed.

The Chairperson: So, from your point of view, you are happy to support that.

**Mr Wasson:** We welcome it. As soon as we need to do something on that for the regulator, we will support that.

**Mr Dunne:** Thank you very much, gentlemen, for coming in again. A number of issues have been covered, and you had the benefit of listening in. One big concern, obviously, is the planning process. We get the message from out there that NIE is reluctant to engage with potential developers until the planning approval comes through. I would like your opinion on that issue. As elected representatives, we get quite a bit of feedback on that issue. The point was made about the risk of hoarding capacity, which perhaps could be dealt with or managed in a different way. We heard evidence today about the Slieve Divena project, which, to me, seems totally unacceptable. Obviously, there are reasons for the delay, which we would like to hear about. They got approval in 2007, and your estimated date now for connection is March 2017. That is 10 years, which is a long, long time, and they had the prior lead-in before that. Altogether, the whole project will run for about 13 years, which seems unacceptable. I would like your opinion and comments on those issues first of all, please.

**Mr Atkinson:** I will try to answer both those points. I would split engagement with developers during the planning process into two broad areas. On the larger scale, where we are dealing with a much smaller number of developers and, typically, much bigger projects, there is frequent and regular engagement with all of the developers, whether they are at the planning stage, post-planning application stage, or whatever. We have very firm rules that we do not recognise an application as bona fide until planning approval has been agreed. We strongly remain of the view that that is the best way to run a regime. However, during planning processes with larger developers, we will frequently engage. We may be asked to carry out feasibility studies to determine the likely way the connection will take place etc, and the developers will pay a fee for that. That arrangement normally works quite well.

Mr Dunne: Who does that work? Is it put out to consultants?

**Mr Atkinson:** We do a considerable amount of it in-house. We have some strategic consultants on a procured panel of consultants that we use for some of the very technical design aspects, but we frequently engage in that process with the larger-scale developers. I feel that that arrangement works quite well. With small-scale developers, we equally believe that the requirement for planning permission before the application is recognised is the right way to go about it.

On the issue of engaging with small-scale developers in advance either before they go into the planning process or after they come out of it, there is a huge volume of developers and parties involved in the process. We do and have done feasibility studies in advance when requested to by developers but, because it is such a fast-moving part of the market, developers will have concerns that a feasibility study may almost be out of date by the time it has been handed to them. The feasibility study, or any budget assessment, does not really allow the developer to book his capacity with any certainty of what his connection will look like until planning has been agreed and he has his application in. So, it is a more challenging area to deal with on engagement during the planning process.

The view that we have taken mirrors some of the comments that I was listening to earlier about providing information to developers at an earlier stage in the small scale to try to allow them to understand whether schemes may or may not be feasible. We have a strong view now that, having had some experience with developing what we call a heat map and making that available on the network, if we are able to take the heat map to another level of granularity and accompany that with some general mapping information on the website, developers may, fairly quickly, be able to get an early view on whether their schemes may or may not be viable. We feel that, as a first step, we will be undertaking to do that in the relatively short term.

Mr Dunne: That heat map is not available currently?

**Mr Atkinson:** The heat map itself is available. There is a version of the heat map in your pack. I am suggesting that, whereas that heat map has generally been quite helpful to people who are either in an area that is not under pressure or an area that is, that heat map can go to another level of detail. It could go to a method that people access on the website, and, if they know their location, for example through their postcode, they can focus in more clearly and see not only whether the general area is looking busy and congested but whether the line that they are trying to connect to is looking very busy or likely to be costly. We feel that that would be a very useful step forward and one that could work well in an environment where there are lots of developers looking at lots of options. There are literally thousands of potential sites out there on which developers are trying to get a view one way or the other. It is a very different scene than the larger-scale developer community.

Mr Dunne: Is dealing with all of this a heavy demand on your resources?

**Mr Atkinson:** The processing of applications generally is a very intensive process currently, not least because, as the network has become busier, the nature of the actual assessment of each application has changed. Most developers' starting point is to see whether they are close to a line and see whether they can get connected to a line, but, rather than seeing where the nearest line that you can connect to is, the electrical analysis that needs to be done needs to look much deeper into the system once the network gets congested. That design work is quite intensive. It is quite specialist, and it certainly puts pressure on resources. That said, we have injected considerable additional resources into that business area over the past year. We feel that we are coping reasonably well, but we need to deploy our resources proportionately to the areas where we feel we can get the most value from them.

**Mr Dunne:** What is a reasonable time for a small connection, even a photovoltaic (PV) one? First, how long will it take for a quotation and then how long will it take to make the connection?

**Mr Atkinson:** The technical term for PV connections at a small level is G83. The small solar panels, the PVs that you see much more of on individual dwellings, are basically connected on a fit-and-inform basis. They do not go through a complicated application process. The panels are fitted and a level of certification is signed to say that those panels have been installed as standard, and we accept that.

As you start to move beyond that, and not that much beyond, to be honest, we get to the situation where any application with a substantive number of kilowatts needs to be assessed in the context of the overall impact on the network. You may say that some of those small schemes sound small and are unlikely to have a significant impact. However, if you consider that we are processing 600 or sometimes 700 applications a month for small-scale solar installations, the impact on our network over the past 12 months has been considerable. We need to assess those on a non-discriminatory basis with other applicants that are coming into the frame as well.

**Mr Wasson:** May I step in for a second? There are some complexities to this. People in a community will tend to have the idea of installing small-scale projects all at the same time. So, there is an interaction of these things technically that needs to be carefully managed. We have to give quotations within 90 days and, in a lot of cases, we come close to that 90-day limit.

Mr Dunne: That seems excessive to the ordinary man in the street.

**Mr O'Mahony:** Based on the statistics, we had 600 applications last year. To date, this year, we have had 3,000. You can see the growth; it is a big workload, and 90 days is a stretching target for us to reach.

Mr Dunne: A stretching target?

Mr O'Mahony: It is, if you consider 3,000 applications as opposed to 600 last year.

Mr Dunne: Yes.

Mr O'Mahony: It has gone up exponentially.

**Mr Wasson:** I know that people have raised this as a negative thing. I hesitate because I do not want to sound arrogant but, in a way, it is a bit of a red herring. Were I a small-scale developer, I do not think that I would be terribly concerned whether I was getting my quotation in 60 days versus 88 days; my concern would be how much the quotation was for and when it would be built out. Those are the real issues. However, I accept that people have, maybe because of wider frustrations, raised the quotation issue. If I were a developer, I do not think that that would be keeping me awake at night.

**Mr Dunne:** The other point that has been made to us, and the Chairman is aware of it, is the issue about the G59 connection. That seems to be one that you are holding tightly. Various people have approached us who believe that they can come up with a technical solution to the problem. I am not an electrical engineer, although I have a bit of mechanical knowledge, but it basically stops the risk of leakage out onto the grid. Are you prepared to look at that technical solution?

**Mr Wasson:** Before you answer that, Michael, I will make a general point on the care that NIE takes over generation connections. It would be helpful, I think, to keep this in perspective. We have a licence obligation to our existing customers, the majority of whom are load customers, of which we have 840,000. They include domestic customers, small businesses, large industries and so forth. We have an obligation to keep their electricity supply safe, economical and to a quality standard. That is our licence obligation and something that we take very seriously.

The developer community sometimes vent frustration that NIE takes time. We hear words like "overconservative" being used from time to time. We do not apologise for that. We are conservative when it comes to connecting new generation to the network for which it was never designed. We take our time and make sure that that is done correctly. That is because we are balancing the needs of those 840,000 customers versus probably about 25 large-scale developers and several hundred small-scale developers. That has to be kept in balance. That is just to preface what you, Michael, were going to say in particular on the G83 question.

**Mr Atkinson:** We are in the territory of the cut-off point between the smaller PV arrangements and the typical sizes that you will have heard in the conversation: 3 kW to 4 kW, single phase and about 11 kW, three phase. Beyond that size of installation, we are insisting that the developers apply under what we call the G59 process, which is similar to that for single wind turbines. Our view is that that is the appropriate interpretation of the legislative requirements we are bound to. It is also consistent with trying to manage the network on a fair and equitable basis with the other small developers trying to connect single wind turbines. Whether a single wind turbine or a PV applicant comes to us with a 50 kW application, we treat them on the same basis.

You asked whether we are prepared to look at it again. As part of the engagement we are having with the industry, we will test each other's understandings and explore why the interpretations are different. That does not mean that we feel we are doing anything the wrong way. It is an important issue with the industry, and we are more than happy to go through the engagement again to develop an understanding of why we are doing things the way we are.

**Mr Dunne:** In relation to G59, I understand that, especially the west of the Bann, it is difficult to make the connection.

**Mr Atkinson:** Sorry to interrupt you, but regardless of whether we deal with it under G83, which is basically where the PVs connect without having to be considered in the wider network, or G59, where they are, ultimately they all contribute to congestion. The small PV and the larger PV equally contribute to the congestion problems in our network. From our point of view, as I said, to operate and design things prudently, we need to take account of all that energy coming onto our network, particularly as it is getting very congested in the west.

Mr Dunne: So, you are prepared to have a look at it?

**Mr Atkinson:** We are looking at it. We are certainly not making any promises about change. We believe our position is solid, but we are absolutely happy to go through the discussions and arguments again.

**The Chairperson:** You said that the number of applications has increased to 3,000. Forgive me for saying so, but you are a business; they are not exactly getting it done for nothing. From a business point of view, a lot more people are coming to you as customers with a lot more opportunities to make money. How do you adapt to that to avail yourselves of those opportunities?

**Mr O'Mahony:** As Michael stated, we put more resources into the area. I am not complaining about 3,000 applications; it is great. I am just saying that the workload has been increasing steadily over the past two years.

The Chairperson: Could you give us some indication as to what resources have been put into that area?

**Mr Atkinson:** There are quite a few numbers moving around at the minute. We need to keep a wee bit of control on it. Joe is quite right: many of the very small-scale solar applications will be connected on what we call a fit-and-inform basis. There is not a huge amount of administrative work; there is certainly less than for some of the larger ones. Last year, applications for small solar was 600 for the full year. For the year to date so far, we have had 3,000 applications already. That is at the relatively small end of the market, and many of those connections require relatively small administration. The general connection levels for single wind turbines, which is the main source of business, has gone up from around 400 applications per annum in 2011-12 to about 600 per annum at the minute. That is the larger small-scale generation.

The Chairperson: I appreciate that.

**Mr Atkinson:** I am just trying to make sure that there is a wee bit of consistency before I answer your question on resources, just to try to get the flavour —

**The Chairperson:** The point is that these are not unanticipated. These are ones that, as we have heard, have all the merits that have been vaunted by others about getting planning permission first.

#### Mr Atkinson: Sure.

**The Chairperson:** It is not as though they are coming completely out of the blue. These are ones you can determine by just ringing up Planning Service and asking, "How many single wind turbines have you got in the pipeline?"

**Mr Atkinson:** Absolutely. The thing is, though, as we have recognised that increase, and particularly seeing the 400 figure move up to 600 per annum, we have resourced up considerably within the section. If we look at the core of the office function that processes these applications, for small-scale generation alone we have 23 or 24 people permanently tied up in that area of the business processing these applications.

The Chairperson: These are admin office-based staff?

**Mr Atkinson:** Yes. I would describe it as office-based but it tends to be a combination of design engineers, planning people and some people who you would describe more as pure administrative-type resources. That 23 or 24 staffing figure is up from an order of 15 or so, 12 or 15 months ago. We have ramped up to try to match the demand.

The Chairperson: What about the ones who do the actual nuts-and-bolts stuff?

**Mr Atkinson:** The workforce on the ground is much less of an issue. We have a large workforce delivering connections generally, be it a normal load-related connection or a connection relating to a wind turbine. Those resources are more than capable of dealing with the wider remit of generation connections.

You are probably wondering why it takes so long to connect the wind turbines. It is not the physical building and construction that takes the time. Typically, that is done within eight weeks at the end of the process. The big portion of the time is occupied by the design of the earthing arrangements for the substations, and particularly the way-leaving and consenting arrangements that need to be agreed with local landowners. That tends to be the biggest single issue that we face. It is the time to get the full legalities progressed before we can move the job into what we describe as the final construction stage. I am sure that, if you ask people, they will tell you that, once the construction work starts, the job is normally done within six to eight weeks.

**Mr Wasson:** Some of the issues with way-leaving are no different from what we sometimes encounter with other construction work. You can have silly situations where two neighbours have not been speaking for 20 years and one of them wants to put up a wind turbine but it requires a line to go over the neighbour's land. Lo and behold, you have a problem with the way leave, and that becomes quite difficult.

**The Chairperson:** I appreciate that, Robert. I hear what you are saying because, not that often, but you sometimes encounter that issue with just a standard application for a house that requires sight lines. I would not expect that to be entirely the pattern. You get that in country areas and the like, but it is the exception rather than the rule. I can understand that holding things up because if somebody says, "You're not going across my ground", that is it.

**Mr Atkinson:** Could I maybe just challenge that point? We are finding that it is increasingly an issue as more and more wind turbine developers are trying to get connected to the network. Because there are limitations in the remaining capacity, they know that they are, to some extent, potentially in a battle with their neighbours as to whether they are going to get connections. We now find in many cases in some of the busier areas of the Province that there is much greater reluctance on the part of local landowners to give access. That has been an escalating situation.

**The Chairperson:** Thanks for that. There is just one other thing, and we will provide this to you in writing. We have evidence from Invest NI about difficulties and problems that slowness or lack of movement, in some instances, in connection to the grid is creating for them. We cannot really bounce that on you today, but we will provide you with a written copy of the relevant paper. You can respond in writing to us, if that is OK.

**Mr Agnew:** I apologise for having to nip out midway through your presentation. If I say something that has already been covered, tell me; it is my own fault and we will move on. I will not waste your and the Committee's time by having you repeat yourself.

I am not suggesting this myself, but some of the evidence that we heard said that NIE as an organisation is conservative, averse to change and innovation, is a barrier to progress and behaves like a monopoly despite regulation. What is your response to that?

**Mr Wasson:** Well, we would disagree with that. Why would we disagree with it? First, we are a monopoly, but that is because we are a natural monopoly and that is why we are regulated in the way that we are.

I will address the question about whether we innovate. We would say that we do innovate; in fact, SSE mentioned that earlier. For example, when you look at the very conservative spend that we put in place for our short-term plan to get us going on the connection of renewables, less than £2 million was spent on releasing about 300 MW of capacity. We did that through innovation; we put in place special relays and protection schemes in quite an innovative way so that we could squeeze more capacity out of that existing system. It is not always about electronics; we have adopted new conductors for our transmission lines that can be run at much hotter temperatures and, therefore, you can get more current through them and a greater capacity from a circuit without having to rebuild it.

As I mentioned before you came in, we are continuing that. We are engaging with the industry and looking at practice in the UK to see what has been done there to connect more small-scale generation to existing networks with perhaps less investment. Therefore, I would say that we are innovative.

One of the disappointments that we had to deal with in price control was that the Competition Commission remained unconvinced by the argument that we made for innovation funding. If you look at our funding for innovation versus what would be typical in a DNO, it is almost nothing. We think that that is very poor value for the customer. I would say that that will be corrected in our next price control but, for the next two to three years, we need to find a way to do what we need to do, and that is our intention.

**Mr Agnew:** One of the examples that has come up — I hope I get the technology right here — is the reverse power relay that is needed for renewables, which cannot get the grid connection in time. They wish to power their own facility but there are concerns with the grid. My understanding is that, in GB, that technology has been accepted as safe, but you have not accepted it here in Northern Ireland. What is the reason for that?

**Mr Wasson:** We covered that while you were out, Steven. We said that we are open to looking at that, but that we are not apologetic about being conservative in how we develop the network. That is because of our responsibility to a wider customer base of 840,000. We have to keep the network safe and reliable and keep supply quality up, but we are open to looking at that particular matter and we intend to do so.

**Mr Agnew:** I want to ask about the strategy for grid investment. You have been here before and have said that you do not turn down applications as such — if they can be funded and have planning permission etc, they go ahead. That seems quite a responsive approach. Is there a strategic approach to developing the grid that runs alongside that or is it literally demand-led, or led by developer demand?

Mr Wasson: Are you talking about renewable generation in particular?

**Mr Agnew:** In particular, yes. I am asking about the upgrades needed to bring the greater proportion of renewable energy online.

**Mr Wasson:** I will talk to that for a second. We talk about large scale. The market will throw up various developers who are interested in development projects and it will throw up various projects. We have some sight of those as they start to roll out. To connect those we are doing a couple of things. The medium-term plan, which you will see referred to in the pack, is really a background investment in the 110,000 volt network.

Primarily what we are trying to do is get power transferred from the west of the Province, where the wind is and there is not much of the load, to the east of the Province where the load is. The medium-term plan is aimed at doing that and helping us to connect more of those networks.

Then, slightly longer term ,we have the further investment of £420 million, about £100 million of which is for the interconnector and the balance is for further investments, particularly on the 275 kV network. Again, a lot of that is in the west of the Province. Those are the backbone investments that we are planning.

In addition to those, the bit that is a little more reactive is the commissioning of cluster substations. As you get a group of wind farms developing in a particular locale, we will seek to put a cluster substation in to supply those. Those are also reasonably well known.

**Mr Agnew:** Is there a certain amount of predictability of the investment that is likely to come in? There is a relatively small number of companies that can afford those types of wind farm investments. Presumably you are engaging with them on current projects. Are you working with them to assess future projects that are likely to come and is that where you can at least move on together?

Mr Wasson: The answer is that yes, we are engaging. Michael will expand on that.

**Mr Atkinson:** We have sort of given a bit of a flavour in the pack. I will just see if I can find the slide, but it may be worth picking up on the point, not just in terms of the amount of wind that is currently connected. We have also given a wee bit of a breakdown on slide 6. We have given an indication of the amount of megawatts that are currently connected on a large scale, which is in the order of 550 MW. In addition to that, we have another 328 MW of delivery agreed. That is work for which the money has already been paid. Beyond that we have 122 MW of live offers and we have 196 MW coming down the road at us in applications. We are also aware of about a further 600 MW that is in the planning process.

The developers in that territory are generally ones that we are quite well acquainted with and meet on a regular basis. We know what their plans and aspirations are. Fundamentally, what we are doing on planning ahead and the work that we have all signed up to at the minute is the remaining part of what Robert has described as the medium-term plan work, which is essentially development of 110,000 volts up into the north and across into the west to make the network strong enough to accommodate the clusters that we already have earmarked with construction approval with the regulator, so that, by 2017, that medium-term plan, in conjunction with a number of strategic clusters, will be in place to take the additional work that is coming through the pipe and connect around that sort of timeline.

The question about strategy arises as to how well equipped we are to go beyond that, from that level of around 27% renewables to 40%, because that is where you step into requiring investment in 275,000 volts. We know the clusters that need to be implemented as well within that timeline. They are already in the initial stages of development.

The big challenge is how we are going to get that further, more substantive investment in the real backbone, the 275,000 backbone, agreed. That is the bit of the jigsaw that has not quite been worked through or agreed yet with the approval authorities. It means that we can get to about 27% in terms of the enabling capacity of the network and we can see the developers that will connect to give that sort of output in that sort of timeline.

**Mr Agnew:** This is to some extent related to what we heard from the previous presentation, when you were not here, around some of the connection issues and planning for developers. A big issue was certainty of timelines of grid connection in particular. I have heard the argument about whether you should run parallel with planning or take a step approach. It seems to me that the middle ground is that you can at least give an estimate, not an offer, of costs. On the matter of giving an estimated timeline, I think that you do need that level of certainty and that kind of estimate of budget. Is there any progress towards that? Is there a reason why we cannot move in that direction?

**Mr Atkinson:** The good example that SSE referred to was of a Slieve Divena connection, which has probably been in the system since the mid-2000s. It is a good example but is probably at one end of the spectrum. It had come in with an application and got its planning permission back in around 2007, and, as we were moving beyond that point, NIE, in conjunction with the regulator, was having to try to work out what the best way was to connect potentially quite a high volume of wind farms coming into the system. We got into considerable and very lengthy discussions and debates about the advantages of moving from more individual-based connections such as long runs back to primary substations, getting into a more structured and efficient method of connection, which was the cluster methodology. Admittedly, it did take some time to work that through. We got approval in principle from the regulator in 2011, and various determinations and challenges arose at a certain point, which almost caused the industry to go into hiatus for about two years after that.

Slieve Divena is one example of a project that got significantly held up or delayed as a result of that. Now that we have the cluster methodology agreed and have the medium-term plan lined up and can see these cluster delivery times coming in for 2016 and early 2017, we suggest that that plan is much better organised. However, there is still a fair bit of pressure on NIE and other parties to make sure that we deliver those clusters within that timeline because the incentives that sit around this for developers potentially change quite dramatically once they move from the early part of 2017. Beyond that, the actual method of reward moves from renewables obligation certificates (ROCs) to feed-in tariffs and things like that. That early 2017 date becomes a critical date that we are all working to now, and it requires us to work smartly and also requires us in our join up with the regulator to get some of the approvals to work smartly as well. So, there are big challenges there, but I suggest that it is in a much more organised state than it was three or four years ago.

**Mr Wasson:** That engagement with the developer community is very important. Michael, in particular, and I invest quite a bit of time in interacting with them. We do that at individual developer level and we do it with the Northern Ireland Renewables Industry Group (NIRIG) — we were with its committee as recently as yesterday, in fact, and we meet NIRIG every six weeks or so. We also do it through the Renewables Grid Liaison Group, which is chaired by the regulator. We, SONI and NIRIG are very keen that we get the Sustainable Energy Inter Departmental Working Group (SEIDWG) process established again. That is the cross-departmental process around grid planning, and, in fact, in the next few days, we will all be writing to the Minister to suggest that.

**The Chairperson:** Steven, very briefly. I have allowed a fair degree of latitude on this, and other members are looking to come in.

Mr Agnew: I have two very quick questions.

The Chairperson: Very quickly, and a quick response, please.

**Mr Agnew:** Do you foresee a stage where you can say that we will deliver within x days, weeks or months? In relation to that certainty, do you have plans to revise your heat map?

**Mr Atkinson:** The heat map will be revised shortly. I am not sure, Steven, whether you were here when we mentioned it. We will update and develop the heat map to another level down. Currently, it shows general areas, and we think that the sensible way to take information-sharing forward is to develop it to the next level down, where we show the individual lines and feeders colour coded. So, the answer to that one is definitely yes. We will probably not guarantee timelines to the nearest day or week, but we are confident that we can meet the big deadlines that we need to meet in late 2016 and early 2017. Those will be the crunch deadlines for us.

**The Chairperson:** We have a number of other questions, gentlemen. If it is OK with you, we will submit those in writing. We could probably spend all day on this very interesting topic, but the constraints of the clock are upon us.

**Mr McKinney:** Thanks very much indeed. I, too, apologise for not being here for your presentation. I am trying to practise the art of being in two places at once.

One of the most interesting things that you said — for me anyway — was about the extent to which you are now getting new applications. You are up to 3,000. I know that you are explaining some of the deeper-down knowledge around them. Is the reality not that that demand impacts both on the process and the actual connection?

**Mr Atkinson:** I certainly agree that the level of applications is very high. We need to understand how that is broken down. I know that you heard some of that. It is a very high level of applications, but I suggest to you that we have manned up considerably. The level of expertise that is required in this area to process applications is quite high. It is not immediately easy to lift people off the street who can do that sort of work. We have devoted or deployed some of our best people in that area.

I can give you some encouraging signs. Whereas, around a year ago, we were struggling somewhat in this territory, we have now got to the stage where, as we move through the application process — albeit we take the 90 days and I do not see us changing from that in the short term — we are able, at a much earlier stage in the process, if it turns out that an application is likely to result in a very high cost, to actively ring the developer, have a discussion with them and even iterate their application if they want to try for a smaller size to see whether that will fit in. All of that adds to the work that is being done in that period. I think that we are working better and smarter within the period, but I would not offer to take the period back at the minute.

**Mr McKinney:** You are a business: you will want to keep all of that demand and work with it. However, is it now reaching the point where competition is what is needed?

**Mr Atkinson:** As Robert said, we fully expect competition to come down the road at us. The question is —

Mr McKinney: The question that I am asking is this: are we not at that point now?

**Mr Atkinson:** My understanding is certainly that the regulator intends to consult quite shortly on competition. We will be an active participant in that. We cannot really speculate on whether it will bring major changes or improvements for developers. However, whereas we are criticised at present for issues around cost and timeline, we believe that there are some genuinely solid reasons for some of those difficulties that will not entirely be resolved purely by competition.

**Mr Wasson:** We welcome contestability. As soon as the regulator is ready to start working through that, we will be there to work through that with it.

The Chairperson: We have already covered this.

**Mr McKinney:** I know. I understand that. I just wanted to raise the specific point about demand; not just competition, but the fact that that demand is there now and should be a driver to increase activity around that.

**Mr Frew:** I will try to be as brief as I can. I want to cover cost because it is a massive issue for people, businesses and renewable-energy companies that are connecting to the grid. There is also time, and time is costly.

I know that it is technical. I am an electrician by trade, so I know some of the pain that you bear. Can you give us the rule-of-thumb relationship between grid strength and connection costs and how that is worked out? While it is technical, there must be some way in which you can work out a rule-of-thumb formula that will be able to help businesses when they apply or even contact you to seek information about applying.

Mr Wasson: We are probably talking about small-scale generation here, Paul, are we?

Mr Frew: Yes.

**Mr Atkinson:** In terms of a rule-of-thumb number, the simple message is that moving from a less congested network in the west to a very congested network has probably introduced a multiplier of between two and three on the cost. So, whereas it was  $\pounds 60,000$  or  $\pounds 70,000$  18 months ago, it is up nearer  $\pounds 200,000$  on average. That is what congestion means.

To try to help developers to understand the likely or potential cost, we have suggested, and we discussed earlier, providing information — probably website-based initially — which would show the heat map down to the level of the feeder to which that the individual developer is thinking about connecting. We can colour-code it to tell them whether it is a busy, medium or lightly loaded feeder. Using that, in conjunction with another rule of thumb — the distance between them and the nearest primary substation — we feel that we should be able to give some fairly broad indication, for example is it going to be less than £100,000 or more likely to be £200,000. However, once you try to go beyond that level of detail, you have to get into quite sophisticated design calculations. We can maybe find a compromise there that allows a wee bit of filtering at the early stages.

Mr Wasson: It is important that we do not mislead people as well, Paul. That is the balance.

**Mr Frew:** Whilst you would argue that you cannot look at every planning application and spend time and man-hours on it, surely that would help to target business to areas where there is accessibility, potential and the cost can be kept low. That would factor into their business plan more, which then would assist you in your workload.

**Mr Atkinson:** That is largely the reason for doing it. I do not want to appear conservative, or to be issuing health warnings all the time, but just bear in mind that the situation is that, when somebody looks at this at a relatively early stage, they could get an indication of something that looks maybe quite attractive, but by the time that they had gone through the detailed planning and were ready to get in their application, the game may have moved on and somebody else has moved in ahead of them. It is not £50,000 any more; it is twice that. So it has to be guarded in a best endeavours, best —

**Mr Frew:** If developers had access to your geographic information system (GIS), surely that would help inform business, developers and everyone — indeed, yourselves too. If you could put some sort of tracking device on it as to applications and people looking at information. Surely there is something within that technology that can be refined to help you and businesses.

**Mr Atkinson:** What we are suggesting, Paul, is that the heat map, in conjunction with an overlay of our network which will show the geographical/physical layout of the network, provides a combination of information that could, we feel, potentially help in the way you are suggesting. We are not of a mind, at the minute, to make our full GIS records available. There are a number of reasons for that, not least the fact that, as we populate our records and take account of potential connecting parties, all sorts of issues around data protection etc for other parties —

**Mr Frew:** Why, then, can other companies that are actually in competition allow access to their systems, yet NIE, which works alone here and basically has a monopoly, does not? It guards that information when it should be accessible to the public.

**Mr Atkinson:** We feel that there is a level of information that is appropriate to share with the public and which would be helpful, but we do not think it appropriate to share full access to our records. We possibly take a different view to those other companies.

**Mr Frew:** Why, then, are those other companies doing that? What is your rationale for why they do it, but you will not?

**Mr Atkinson:** One reason may be that, in our situation, I suggest that some of the factors that we are dealing with here are relatively unique to Northern Ireland. On the mainland, we are aware of companies that simply use the records to determine what is the nearest point of connection, and the price of connection is based on that without any reinforcement required. We are quite sure that that is what happens.

In our case, because of the level of congestion on our network, and it is a relatively light network, we know that, by placing the full geographic records on the net, it presents information in a way that is potentially going to be quite misleading to any party that uses that information to do calculations about their connection costs — and we feel that there is a level of that information that it is appropriate to share but we do not feel that, in our case, the full records should be shared.

**Mr Frew:** It has been put to us, and I put it to you, that people believe that NIE guards this information because it can charge basically what it wants.

**Mr Atkinson:** Sure. We have seen some of that coming through in the notes. I suppose that all we can say is that, in any case that our costs have been challenged, we have been able to explain those costs to the regulator, and we are satisfied that we can do that in all cases. We give an outline and indication of the amount and content of work content required when we provide a quotation. There may not be the cost breakdown that all developers would like to see, but there is a pretty solid indication of the work that is required in a connection when we provide the offers, and that has proved acceptable in our statement of charges and regulatory engagement.

**Mr Frew:** If you break that down, one aspect is the half-hour meter. That needs to be the case with renewable electricity connection. Action Renewables believes that NIE's statement of charges is very high. It said that NIE charges £450 for the purchase and installation of the required half-hour meter, and that, elsewhere, it costs £150. How do you counter that?

**Mr Atkinson:** All we can say is that we have not looked at that particular challenge in detail, but we have to go through a rigorous process annually with the regulator to get our statement of charges signed off. We will be doing another one in the next few months. All the charges finally placed on our statement have been agreed as reasonable with the Utility Regulator. If challenges are being made in those areas, they can be taken account of through that process.

**Mr Frew:** What about the specific issue of the half-hour meter? If some other company from somewhere else is charging £150 and NIE is charging £450, how can that be justified?

**Mr Atkinson:** All I can say is that we have been able to justify why we are charging £450 to our regulator. I cannot account for somebody else in another jurisdiction.

Mr Frew: Can you justify the £450 to the Committee?

**Mr Wasson:** In fairness to Michael, we do not have the detailed information on that particular case. We are happy to revert on that.

The Chairperson: Will you come back to us on that?

Mr Wasson: Yes.

**The Chairperson:** I do not know whether the regulator goes into that level of detail, but we certainly want to get it. It is an issue that has been raised.

Gentlemen, I am aware that two of you have to leave to attend a funeral. It is coming up to two minutes to 1.00 pm. Whichever two of you are attending, please feel free to go. We had only one more question.

Mr Frew: That is me finished, Chair.

**Mr Douglas:** I had four questions, but three of them have been answered. As for the last one, Paul asked half of it. It is about the GIS system. Michael talked about some of the reasons why you would not give access to developers. Is it also to do with commercial confidence? If you came to the point where you said, "OK, we will actually let you have access to that", would there be a cost to it? Maybe that is a hypothetical question.

**Mr Atkinson:** When you talk about commercial confidence, do you mean whether we are confident in our records?

**Mr Douglas:** Commercial confidence in that, somewhere down the line, some of the people you give the information to might be competing with you.

**Mr Wasson:** That is not really a concern. We need to be a little bit careful about data protection. We need to make sure that whatever information we are releasing does not give a small-scale developer information about other small-scale developers. However, the core issue you raised was about commercial confidentiality and us versus somebody who might want to get into the connection business. That is not really a concern.

**Mr Atkinson:** Unless the information shared is well understood, it has the potential to be very misleading. If the GIS records are used in isolation to do calculations, they will not show reinforcement work attributed to connecting parties that have not yet connected. However, we have had to take account of those parties when we were doing our own design calculations. That has the potential to completely confuse the situation. It is just one reason why we need to be very careful about anything we share.

**The Chairperson:** I have one very brief question: when Action Renewables was with us, it said that the solar PVs below 49 kV were not recorded in your system for some reason or other. Why is that the case? If that is not being recorded in your system, the cumulative effect of those feeding into the system will not show up as coming from renewable sources.

**Mr Atkinson:** A legitimate question has been raised about the way in which the export from those sources is being recorded, how it is being traded in the market and the rights of suppliers to buy it or whatever. I think that NIE has recognised that, with the amount of small-scale solar coming on board, we had been, if you like, using a cruder approximation to what that energy coming on to the network was than is maybe appropriate now. We have taken that on board as an action through what is referred to a CDA — a design authority that comprises the NIE, industry members or whatever. Going forward, a more precise calculation will be done and available to suppliers and everybody else for the amount of energy that is being contributed. NIE hosted a workshop last week specifically on that issue, and a proposal has been brought forward that will shortly be available for sign-off with the regulator.

The Chairperson: With a view to implementation from what date?

**Mr Atkinson:** These things tend to implement within a two- or three-month timescale. It would probably be that sort of thing. The ultimate answer to that issue is a smart-metering solution, and that is some way further down the road.

**The Chairperson:** That is grand. I will not delay you any longer. Thank you very much. That was very helpful. We have a number of questions that we will send to you in written form, and we would like a written response, please. Thank you very much.