



Northern Ireland Affairs Committee

Oral evidence: [The electricity sector in Northern Ireland](#), HC 51

Wednesday 15 June 2016

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Written evidence from witnesses:

- [Northern Ireland Renewables Industry Group \(NIRIG\)](#)

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Members present: Mr Laurence Robertson (Chair); Oliver Colvile; Mr Stephen Hepburn; Lady Hermon; Danny Kinahan; Jack Lopresti; Dr Alasdair McDonnell; Nigel Mills; Ian Paisley; Gavin Robinson.

Questions 69-134

Witnesses: **Rachel Anderson**, Chair, Northern Ireland Renewables Industry Group, and **Maf Smith**, Deputy Chief Executive, RenewableUK, gave evidence.

Q69 Chair: Ms Anderson, Mr Smith, thank you very much for joining us. As you know, we are at the very beginning of our inquiry into the electricity sector in Northern Ireland. Just before we proceed I need to make the Committee aware of a registered interest I have as a paid adviser to Veolia. Any other interests? No. Okay. Before we ask questions, would you like to just briefly introduce yourselves and the organisation you represent please?

Rachel Anderson: Good morning. Thank you very much for the opportunity. We will introduce ourselves and then we will give you a brief introduction—if that is all right.

Chair: By all means, yes.

Rachel Anderson: I am Rachel Anderson. I have worked in the renewables industry for the last nine years. I work for a company called RES. We are the UK's largest independent privately owned developer. RES is based in Larne in County Antrim and we are responsible for about 37% of generating capacity in Northern Ireland at the moment. I am here today, however, in my role as the chairman of the Northern Ireland Renewables Industry Group. My colleague will introduce himself.

Maf Smith: I am Maf Smith. I am the deputy chief executive of RenewableUK. We are the UK-wide trade association for wind, wave and tidal energy. I sit on the main committee of NIRIG—Northern Ireland Renewables Industry Group—and we support that group along with the Irish Wind Energy Association.

Q70 Chair: Thank you very much. We are going to concentrate on renewables this morning. Could you give us the definition of renewable energy?

Rachel Anderson: Renewable energy is utilising our indigenous resources and it comes in all forms: wind, wave, tidal, marine and solar. Renewable energy is based on generating either electricity or heat as well. There are two elements. NIRIG supports its members in the generation of renewable electricity in Northern Ireland.

Chair: It is based on sources that do not run out basically.

Rachel Anderson: Yes.

Chair: Is not based on a lack of carbon. It is based on sources that do not run out, such as the sun or wind.

Rachel Anderson: Yes.

Q71 Chair: That is very useful. What do you see as the main issues facing the industry? What are the biggest problems facing the industry?

Rachel Anderson: At the moment Northern Ireland generates 25.4% of its total electricity from renewable sources and 90% of that is from wind, which NIRIG members have given the biggest contribution to. Renewables are good for Northern Ireland. We have reduced fuel imports by £40 million in Northern Ireland by getting to our current status.

There are a number of challenges that the industry faces. Renewables in Northern Ireland have, as you will be aware, been supported by the Northern Ireland Renewables Obligation, known as the NIRO. That has ensured that generation has come forward and we have developed a significant proportion of renewable electricity in Northern Ireland. That has, however, come to an end. At the moment the industry faces a point where there is no route to market for any form of renewables, whether that is renewable electricity through the NIRO or renewable heat through the Renewable Heat Incentive.

That is quite a worrying situation that we get to, because Northern Ireland will be in generation deficit by 2021. That is what the SONI “All-Island Generation Capacity Statement” shows us. The lights will go out if we do not find any form of generation to come forward. On that basis we have a number of indigenous renewable sources in Northern Ireland. We have a number of companies that have made such a fantastic contribution to Northern Ireland.

We have not only the onshore wind industry in Northern Ireland but places like Belfast Harbour, which has benefitted from the growth in offshore wind as well in the Irish Sea. The harbour is currently being used by Vestas to support the extension of Burbo Bank wind farm. Harland and Wolff have also supported the most recent deployment of the world’s largest tidal turbine. That is currently in Belfast Lough being tested before I believe it is going to the Orkney Isles.

We also have the largest solar farm as well, which has just been connected at Belfast International Airport. That will provide 27% of the generation that the airport needs. The wind industry, like the solar industry here, has ambitions. We want to develop. We want

to be the least-cost technology. We want provide for Northern Ireland. But at the moment we do not have a clear route to market, and that is the biggest challenge. How do you continue to support an industry and give Northern Ireland the best source of energy and ensure that we develop a secure and sustainable energy system when we have an industry that unfortunately is facing barriers at the moment?

Q72 Chair: Can I just ask a little bit more about the ending of the renewables obligation? I suppose there are two points. First, it could be replaced by the contracts for difference if you go down that route. Secondly, I suppose the more hostile question is: why does the industry need an obligation? Why can it not just sell electricity on more of an open market? Why do you need the advantage of the renewables obligation?

Rachel Anderson: I will perhaps set the scene a bit about where we have got to with the NIRO, and my colleague Maf will explain a little bit more about a UK context for the CFD. We had the NIRO in Northern Ireland and that has come to an end. The ending of that essentially was the delivery of election pledges here in the UK. There was very little understanding and consideration to how that has impacted on Northern Ireland. Energy is a devolved matter in Northern Ireland.

The ending of the NIRO has been quite difficult. The process that we went through was quite damaging for the industry. It was damaging for investor confidence, and ultimately now we have a hiatus, because there is no route to market for projects in Northern Ireland of any form in terms of renewables.

Q73 Chair: Why is that then?

Rachel Anderson: There is no support system in place and there is no incentive to bring forward any form of new capacity. It is important to understand that any generation that comes forward, whether that is wind, gas, new clean coal or nuclear, needs to be incentivised in order for people to want to invest in it. Perhaps this is where I hand over to my colleague, who could explain a little bit more why that is so important.

Maf Smith: The electricity market relies upon different signals. I am sure later we will come on to the SEM and the reforms to that market, but if you look at the wholesale price of electricity within the SEM, that information is published daily. Currently the wholesale price is varying between say £50 and £20. At that price no developer of generation is going to build, be they looking at building a gas plant or a wind farm.

We should not mistake what that wholesale price does. That wholesale price is there to decide on a day-to-day market basis who comes forward first and to essentially say, “We would like the cheapest electricity first because that is of benefit to the consumer.” It sends a signal to that market.

If you look at wind and solar, they have no fuel costs but they are capital-intensive projects. You have to spend a lot more money in advance, whereas say with a gas station you have lower costs but longer costs over the life of the project. In many countries around the world, you are seeing the use of auction systems. In the UK we have chosen a

CFD for low-carbon generation and the capacity market for gas and other generation, and the use of those auction systems to bring forward the lowest cost.

Right now in Northern Ireland we do not have clarity for any form of generation as to how those sorts of systems might operate. The Executive is yet to agree to participate in the contract-for-difference market, and indeed the UK Government has not yet set out how future auctions might run for what it calls the less established market, which is primarily onshore wind or solar. Nobody in Northern Ireland would be able to invest in bringing forward new projects.

This is not about subsidy. The UK Government has decided to end subsidy for onshore wind. It was its election pledge and that impacted on Northern Ireland as well, and we can come on to that. This is about deciding how a market works to send a signal for investment on new capacity.

Q74 Chair: A last question from me and then I will bring others in. I will just go back to what you said earlier, Ms Anderson—that you foresee a lack of capacity in the future. I know it is not a completely free market, but is that not enough to incentivise people to invest? If there is a gap in the market, ordinarily there would be investors looking to fill that gap and make money out of it. As I say, there are environmental pressures on the electricity industry. I know it is not as free market as perhaps the car industry or others like that. Is that not enough to incentivise investors?

Rachel Anderson: That follows on from what my colleague Maf has said—that the wholesale price alone is not at a level at which it would incentivise any form of new generation. That is not just renewables; it is anything there. We need to bridge that gap to allow the market to decide and to bring forward the least cost.

Wind has been shown already in the single electricity market on the isle of Ireland to depress wholesale costs, and we believe that if there is some route to market there, we could end up with a system where the least-cost generation comes forward. That is a really important point. In Northern Ireland there has been a lot discussion. Ulster University mentioned prices last week, and the price that any consumer pays in Northern Ireland has been drawn into a stark focus recently.

Wind is depressing those prices. There is no fuel cost with wind, so when it is dispatched within the single electricity market it is good for prices. It brings down the cost of electricity in Northern Ireland, and that can only be a good thing, allowing the least-cost generation to come forward.

Maf Smith: Within a market we have the choice of having a completely open, free market that would do as you suggest, but there would be delayed investment. To get to that point we would have to see price spikes and significant uplift in the wholesale price. Because of a combination of factors, such as having older plant on the system, wind and solar are bringing those prices down. For the market to send a signal for an investor to come in, we would have to get to the point where it got very spiky and you were seeing very high prices over time.

What we are saying is that to avoid that you instead need a more structured market that plans for the long term using auction or similar processes, because if you do not get that right, the wider economy suffers. There is a big issue about how we can protect consumers and protect Northern Ireland businesses. Our view is the best way to do that is by having a long-term framework that is clear, because then you bring forward the lowest cost investment.

Chair: We will perhaps come back to those points of interest there. Thank you very much.

Q75 Gavin Robinson: Good morning to you both. The Executive has a target for 40% of energy production by 2020 coming from renewable sources. Where does it currently sit?

Rachel Anderson: At the moment in Northern Ireland we are at 25.4%. The target has been extremely useful in setting an ambition for Northern Ireland, but one of the points we want to talk about today is the fact that unfortunately by 2020 we do not believe that Northern Ireland will meet that 40% target. We are not saying it is unrealistic, but given the market issues we have discussed we do not believe it is achievable by 2020 at the moment.

Q76 Gavin Robinson: Sure. You referred to the largest solar farm that we have in Northern Ireland, providing 27% of the airport's total need. Is that one of the difficulties that University of Ulster focused on—scalability? The scale required for an individual energy production project is quite preclusive in getting a successful energy source.

Rachel Anderson: All scales of renewables in Northern Ireland are extremely useful, whether that is the large-scale commercial wind farms we have that supply our homes and business in Northern Ireland—they are the mainstay. We also have to remember in Northern Ireland that we have 12,000 small farms, households or communities that have installed their own renewables that are absolutely fantastic. There is a benefit in Northern Ireland from having a full range of sizes and types of renewables. Ultimately it leads us to that aim of having a secure, sustainable and affordable supply of electricity in Northern Ireland.

Q77 Gavin Robinson: Last week the University of Ulster took the view that at a small scale they cannot provide value for money. Is that something you disagree with?

Rachel Anderson: I would say that for farms and for businesses, putting in small-scale turbines and putting solar panels on the roof is highly beneficial. It has helped our rural economy diversify. It has engaged more people in our energy system. There will always be a place for small-scale renewables alongside large-scale renewables. They all have a benefit. I do acknowledge there are difficulties with every scale, but I do not believe that they are insurmountable.

Q78 Gavin Robinson: Getting back to the first question about the target and the achievability of 40% by 2020 maybe, from a Northern Ireland perspective, and more generally in the United Kingdom, it appears as if every time somebody pursues a project that is going to produce renewable energy, they are continually frustrated by the process. It seems

as if you cannot even put a child's windmill on a sandcastle without a protest group establishing. It just injects delay and cost, and therefore a failed target and a missed opportunity. What do you believe the political imperative should be in Northern Ireland or more generally to make sure that the economic benefits and the security of energy supply become foremost when such applications are being considered?

Rachel Anderson: At this moment in time the Northern Ireland Executive needs to commit to moving the Northern Ireland economy to providing a secure, sustainable and affordable electricity supply. That will include committing to developing our indigenous resources, such as wind, such as solar. If we do that, and if we provide also a market to ensure that comes forward, we will see the development of more renewables.

Renewables have a great benefit. We have seen that they have reduced our fuel imports by £40 million. If we do get to that 40%, we could have fuel import decreases of £80 million in Northern Ireland. We have a democratic planning system in Northern Ireland. It enables everybody to have their say in the process. I will acknowledge on certain projects that does slow them down, but it is important that everybody's views are listened to, heard and considered, and we proceed in a way that has renewable projects that people know will make a difference and that people are happy to see in their areas.

Q79 Gavin Robinson: You are quite content with judicial review after judicial review and the frustration of what appear to be, on the face of it, useful but necessary projects?

Rachel Anderson: There are some projects that do go through that, but if a project is appropriate, it will ultimately come forward, but it is important that people's views are considered. It would be useful to streamline that process so that we are not drawing it out. In Northern Ireland we have also seen the biggest planning reforms in 40 years. We have seen the movement of planning that goes from a central planning service down to the local councils. We hope that that is a positive step for Northern Ireland to ensure that more people are engaged in that process and we do see the right projects coming forward.

Q80 Gavin Robinson: Mr Smith, generally is there an equilibrium between the way these applications are treated in Northern Ireland and the rest of the United Kingdom or do you see that there are some distinct differences that we could benefit from?

Maf Smith: There are differences. As Rachel says, we have had very significant planning reforms in Northern Ireland. Politically we need to allow those to bed in. If you look at planning timescales, planning decisions in Northern Ireland have taken a lot longer than elsewhere—England, Wales or Scotland. The critical issue is about clear processes. You can have good, robust decisions, but not necessarily decisions that drag on. Timeliness helps all parties in that decision-making.

If I can return to your previous point about the financial viability of smaller scale schemes, it is important to look at different metrics within that. Some of that is down to how the market is regulated. A lot of our small-scale generation is farm-based in Northern Ireland. If I can draw an analogy, if you are a farmer, you have options as to where you sell your produce: whether you sell it to the co-operative, to the supermarkets, or set up your own farm shop.

If you are selling electricity you have no option, unless you want to just use it on site, but to sell on. The regulations prevent you from, for example, looking at setting up a direct supply. You could, say, partner with a local business and offer to sell them electricity. It would insist that you become an electrical supplier with an electrical supply licence and the process becomes complex.

We would like to see the regulations opened up that would allow smaller generators to look at local supply options. That would essentially allow them to cut out the middle man and create value. Their competitiveness can therefore be different. Instead of generating at a price comparable to the wholesale price, they need to be able to generate at a price lower than the retail price—the price you or I or the business pays. If they can do that, they can offer those businesses cheaper electricity. They are in a position to do that, but they are stopped by the regulatory systems.

Q81 Gavin Robinson: Is that the regulatory systems in Northern Ireland specifically? Can you do this in the rest of the UK?

Maf Smith: You cannot do this in GB either. There is a lot of interest in some markets in America; in some of the states in America, we have seen those markets opened up and it allows businesses to install their own generation, local authorities to look at direct purchasing, community groups or farmers, et cetera. We have to be careful. Yes, smaller scale generation is more expensive per unit, but it is prevented from trading in localised markets where it might, if we had good schemes, be able to be competitive.

Q82 Gavin Robinson: It sounds like a great idea, but what are the impediments? Apart from the regulatory framework, are there those who are against that form of individual or sole trading?

Maf Smith: It is primarily about who can be a supplier. The fact that there are regulations in place was traditionally to protect the consumer by ensuring that only reputable suppliers were in the market. With this growth of smaller scale generation—what is often called decentralised generation—and the growth of technology such as smart systems and smart metering, there are much better control systems in place. We now need—this has been acknowledged, but we have seen little progress—to look at how we could open up those energy markets. Something that NIRIG is working with the Ulster Farmers Union on is looking at how those markets could be built up such that farmers could capture more of the value of those assets rather than having to essentially trade that on at a lower price.

Q83 Gavin Robinson: Chair, that is probably a novel suggestion that might be worth exploring further as this inquiry progresses.

Maf Smith: We would be happy to provide more detail to the Committee if that would be useful.

Q84 Chair: Thank you. Just to clarify that, if, let's say, a combined heat and power plant was built down the road here, the electricity from that has to go into the grid, does it? It cannot go directly to houses or—

Maf Smith: You can supply yourself. If you were, say, that heat and power plant and you wanted to supply the council swimming pool across the road with electricity, you would find that difficult. If you wanted to supply it with heat, you could do that directly by building your own pipe, but as soon as you move on to the electricity system—the wires—the regulations become very complex.

Chair: That is very useful. Thank you.

Q85 Danny Kinahan: Thank you, Rachel and Maf. I have masses of questions but I will limit them. On what you have just been speaking about, the airport and Lightsource—I was at that event—that electricity is going straight to the airport and anything extra, if I understand it, then goes on to the grid.

Maf Smith: That is right.

Q86 Danny Kinahan: We were also informed at that event that it is very hard for anyone to do solar energy and Northern Ireland Electricity are against it. That was one angle. The other is we were told last week that the more companies set up their own systems, the more it makes domestic electricity more expensive, because all the other sources are trying to supply the domestic market and are taking out the big users and are therefore putting up the price. Would you comment on those? How do we get a better use of those sorts of renewables without harming the domestic market?

Maf Smith: That is making sure that the grid system operates with accurate reflective charging so the users of that system bear the cost. It is argument about making sure people do not opt out of paying their way on the system. A lot of effort in the SEM—and the I-SEM reforms—is being put into making sure that you have good cost-reflective pricing and a shift to more active system management, so that when you use the system you pay your way, as it were. If you do not do what you say as a generator or a large customer, there will be penalties in place for that.

Q87 Danny Kinahan: What is holding up solar? We know wind is the other end of it. I got the impression from that that something is stopping people from being able to bring in solar energy. What are the barriers to coming in?

Rachel Anderson: Solar is falling in the same category as wind. There are two elements. There is no route to market for either of them, but unfortunately in Northern Ireland at the moment we have a connection moratorium. Prior to August last year, to get a distribution connection with NIE you had to have planning. This is one of the significant differences that Northern Ireland has to Great Britain. Before you could get a grid connection, you had to be in possession of your planning consents.

There was a dispute last year, and the result of that dispute was if you wanted to connect to the distribution system, you could do so without planning. There was then a rush of

applications—hundreds of them—that absolutely swamped NIE, and we ended up in a position where they could not meet the regulation date to provide connections, so we entered a grid connection moratorium.

There has been an alternative connection consultation recently, and as a result in the interim they are trying to sort out projects that could connect or could get hold of the last phase of any NIRO support. Ultimately in Northern Ireland there is no solution to providing grid connections in the medium to long term. We are effectively still in a moratorium until autumn this year, I understand.

Speaking to both NIE and SONI, NIRIG understands that there has been strong feedback that the requirement for planning permission needs to go back in, so you have to have your planning permission before you seek a grid connection. The responsibility to sort that out lies with the utility regulator and the Department for the Economy. NIRIG is really calling for some strong leadership there from the Department for the Economy. We need to have a licence and legislation review to try to sort out this issue, because it is holding up all forms of generation because grid connection offers cannot be issued in Northern Ireland at the moment.

Danny Kinahan: Thank you. It is a very complicated.

Ian Paisley: Chair, for clarity, I asked for that moratorium. That is why that moratorium is in place.

Chair: Okay, thank you.

Q88 Danny Kinahan: The first question I was actually going to ask was: do you have in your minds how the future should be? Do you have a dream about renewables and how the whole market should look? What sort of percentage is it of wind and solar and hydro and others? Do you have an idea what the mixture should be that is most efficient?

Rachel Anderson: When we had the strategic energy framework and we started on our journey to looking to have 40% of renewables in Northern Ireland, the strategic energy framework was technology neutral. It did not say how much percentage we needed of anything. The success of that has been that the market has decided and the market has delivered.

We as NIRIG believe that Northern Ireland needs to have a clear energy vision. It should not set out how many wind farms we need and how many solar plants. That is not the appropriate way to go. We need to say that we need to move ourselves to a sustainable, affordable and secure energy system that supports not only our businesses and consumers but our economy.

On that basis we need to have a reaffirming of the commitment to developing renewables. Northern Ireland is in generation deficit by 2021 or earlier, so Northern Ireland has some tough decisions to make. Whatever we choose to do, we will need to pay for new generation. On that basis NIRIG believes that consumers in Northern Ireland should benefit from the need for cross-generation, and that is onshore wind and that is renewables. We are an ambitious industry. We want to be able to provide it, and we see

us being able to provide a significant benefit to consumers, to businesses and to the Northern Ireland economy.

Q89 Danny Kinahan: Last week I got the impression from what we were being told that the wind is there all the time, almost more than all the other sources, therefore indicating that wind is the most efficient or the one we should be trying to get more use of. It also seems to be the one that we have the most opposition to. I am always being told that the technology is not good enough. It is costing more and therefore we have to keep sustaining it by giving it more and more money. Is it efficient?

Rachel Anderson: Wind is extremely efficient. We just have to look at how much electricity is generated by wind in Northern Ireland. 25% of our annual electricity comes from wind in Northern Ireland. That is a fantastic achievement. It is efficient. Wind is the mainstay of our technology in Northern Ireland. It is where the electricity mix is at the moment. Going forward, our mix in terms of renewables will include not just wind but solar, and coupled with that we have to look at innovation as well. How can we look at things like energy storage to help our grid? How can we look at demand-side management to help our industries as well? With all of that, we will have a very successful mix in Northern Ireland if there is the support and willingness to bring that forward for the benefit of consumers in Northern Ireland.

Maf Smith: Some of the debate about the suitability of wind works on the presumption that it is wind or nothing. Wind is one of the renewables. It is the most significant within Northern Ireland. Renewables will be one source among others. It is very much about having a balanced mix and then making sure that the system works and can be balanced.

In terms of wind's role, wind is variable. Wind goes up and down. But it is very predictable, particularly in an environment like Northern Ireland. We can predict with over 90% accuracy how much wind we will generate on a day-ahead and on an hour-by-hour basis. If you are running the system in Northern Ireland, having wind is very good because you have high confidence at the time period you need it as to what wind you are going to get. Wind is also very responsive. If you have problems with the system, it can be managed quickly—much more quickly than thermal plants can.

There are advantages to having wind on the system and having it as part of your mix. It is then about how it sits alongside other technologies, including gas, which remains important, and storage. We are seeing AES and Gaelectric investing in storage. That market is moving very quickly. We will see companies using those technologies to help store electricity or balance the system, because the challenge we have is that demand changes second by second and therefore the system needs to be very responsive. Wind has proved itself to work well within the Northern Ireland part of the all-island market.

Q90 Chair: On that, though, if you have such a large wind contribution, for example on a very cold, clear, crisp winter's day, when the wind does not blow but then electricity usage is quite high because it is cold, is there not therefore a need for quite a lot of other capacity, which probably would be gas or coal? Is that not the case?

Maf Smith: We have experienced those situations previously and managed those well. It is again having wind as part of the system and having wind's predictability. We know when those situations will occur and, yes, you do therefore need interconnection. We have in Northern Ireland a lack of interconnection. Having north-south interconnection in place would benefit the Northern Ireland part of the market very much. Having the Moyle interconnector at full capacity certainly benefits. That meshing of systems is very important, as is having that balanced mix.

Q91 Chair: You would import the electricity you needed on such a cold day as that rather than having spare capacity in the system in Northern Ireland? Is that right?

Maf Smith: Look at how gas, for example, as a generation fuel, is used in markets around the world. Plants work at relatively low capacity, because on the whole the market is choosing to prioritise renewables. That is because when wind and solar are generating, as we have said, they bring the cost of energy down, so they reduce the cost to the consumer. Gas prices are variable. At the moment they are low, but even within that we are seeing investment in wind and solar still leading the way globally.

Q92 Oliver Colvile: First of all, thank you very much indeed for coming to see us. I am very supportive of renewable energies, but I have to say I am incredibly disappointed that you have been concentrating solely upon wind farms. I represent, as you may know, one of the largest urban conurbations west of Bristol in Plymouth, and obviously we have a very close relationship. I campaign very hard for us to be given a marine renewable energy plant down in the south-west too. There is no conversation that you have had about tidal, nor for that matter have you talked about anaerobic digestion systems, which is another form of renewables as well.

Indeed, at my dockyard 40% of the energy comes from an incinerator. I would prefer not to have an incinerator. I would prefer to have an anaerobic digestion system. I would like you to explain where you see that fitting into the energy activity and how much you think you can do by generating more tidal and, as I say, anaerobic digestive energy too.

Maf Smith: I am sorry if I gave the impression that we do not value those technologies. That is far from the case.

Oliver Colvile: You did not mention it at all.

Maf Smith: Rachel in her introduction highlighted the economic benefits that tidal is already seeing. We have seen a number of tidal turbines constructed out of Harland and Wolff, Watts and Scotrenewables recently. A 2 megawatt machine was built there and is on the way or about to arrive at EMEC for testing. We have the SeaGen site in Strangford Lough generating for many years—a very successful scheme.

Tidal is a future technology but it will be important. Northern Ireland already has a very strong pedigree in the development and improving of that technology and that is important. It has good sites. Tidal, along with wave, faces the same challenges that other renewables have in that they do not have clarity of route to market. This relates to the

contract for difference and the decisions the UK Government needs to make about the future contract for difference regime.

Importantly for Northern Ireland and UK-wide, we do not at this moment have clarity from the UK Government as to how the auction processes and prices for those technologies might be set by Government. If you are a tidal company looking to build a scheme anywhere in the UK right now, you have a worry about the long-term viability of that market.

Let's be clear that tidal is more expensive now because it is an early stage technology. But the learning rates for those technologies, in common with other electricity generation, are very promising. The UK is already benefitting economically from that. We do see that as an important part of the future Northern Ireland market.

Anaerobic digestion is very important. Again, it is technology whereby we have seen ready adoption, particularly within the farming community. Again, there are questions about the future market, particularly around the heat markets. It is not an area we work with in NIRIG group. As Rachel said, we focus on the renewable electricity market. The heat market is subject to a lot of risk.

Q93 Oliver Colvile: My personal view is that if we are going to use subsidy at all, the money should be put into the research of this kind of technology too, because that is the key thing. Once that has been done, it is up to the businesses to decide whether or not they want to then produce that kind of energy proposal.

Maf Smith: There is always what is often called the gap—the “death valley”. When you get a new technology that has been proven—you know that it works and it is technically proven—you then have to scale up, and it is the scaling up of the technology in terms of the development of sites that is primarily what brings the cost down, and that is where traditionally subsidies have been used.

You have to be careful and choose carefully how you support it and to what level, but you also have to be absolutely clear that when you get to the point where those technologies can compete, they should compete. In Northern Ireland, as in the UK and in Ireland at the moment, with technologies like wind and solar we are seeing them able to compete on price with new gas, and so they absolutely should. The challenge is how to structure that market in a way that proves they can.

Q94 Lady Hermon: The evidence has been fascinating. I do not think I have ever heard anyone speak with such enthusiasm about wind and wind power before. It has been absolutely fascinating. I have a number of questions—some colleagues have asked them already, so I put my pen through those; the ones that remain on the page are really to do with political engagement.

Rachel, if I may call you by your first name, you mentioned in your evidence at the very beginning—it was the sentence that always give me a feeling of fear—that the lights will go out. It was not “may go out” but “will go out”. I will stand corrected if you want to go back over that piece of evidence to us. In light of the fears that you have expressed, do you feel

the Northern Ireland Executive understands the risks to our future energy supply in Northern Ireland?

Rachel Anderson: There is this difficulty, because as you know energy is a devolved matter, and we have seen to date Northern Ireland has struggled to develop its energy policy in a constraint-free way. It has been unable to develop an energy policy that is good for consumers and our economy, and unfortunately some of that gets undermined at a UK level. We have seen an example of that in the NIRO. That is the basis of my analysis there.

There is often not co-ordination between the Northern Ireland Executive and the UK, and that really needs to happen. If we are serious in Northern Ireland about not only developing our renewables sector but planning for our future, it is no good saying we will plan for 2020. We need to know what is going to happen in the next decade. What are we going to do to prevent generation deficit in 2021?

That means the Northern Ireland Executive really needs to use its political power, to use its devolved powers, to either look at suitable access into a UK market or investigate alternatives to pursue that. That really needs to happen to move ourselves forward to ensure we have a sustainable, secure and affordable electricity system.

We just had a draft programme for Government published in Northern Ireland, and NIRIG is quite disappointed that there is no reference to energy, considering the difficulties that we have. We would really encourage the Northern Ireland Executive to think about how it moves Northern Ireland on that journey and how we plan for an energy future and how we can move our country to a low-carbon economy in future.

Q95 Lady Hermon: In fairness to the new Executive, can I just ask—and this is just a question to establish the details here—did you make submissions to any of the political parties asking for energy to be given a priority within the programme of Government? Presumably you did.

Rachel Anderson: Northern Ireland has its own manifesto and we would be more than happy to share that. We engaged with all parties before the election to highlight these issues and we would be more than happy to circulate that document. The programme for government in Northern Ireland is out for consultation at the moment, and again we will—as NIRIG and partnering with other interested organisations looking to develop renewable electricity and renewable heat—put forward the reasons why Northern Ireland needs to ensure that in our programme for government we are planning for a low-carbon future and the security of supply of our electricity system.

Q96 Lady Hermon: You will be submitting that in response to the consultation. That aside, in terms of personal engagement with individual MLAs, do you have the opportunity to give evidence to our equivalent at Stormont?

Rachel Anderson: Yes. NIRIG has given evidence surrounding primarily the NIRO closure, which has engulfed us in Northern Ireland in terms of our energy policy over the last year. We have presented to the then Committee for the Department of Enterprise,

Trade and Investment, and we will be looking to engage with the new Department for the Economy, which has taken on that remit in the new mandate.

Q97 Lady Hermon: I know the Chairman led on the questions about the renewables obligation, but are you do you have figures for businesses that withdrew their plans and withdrew investment from Northern Ireland because of the cancellation of the renewables obligation?

Rachel Anderson: At the moment under the NIRO we believe there is going to be approximately 450 large-scale and 78 small-scale—megawatts—projects coming forward. At the moment there are projects that still have not started construction due to grid. Unfortunately I would not be able to say which projects will not have come forward as a consequence, but we also have in Northern Ireland over 150 megawatts again of onshore wind. That is essentially stranded. It has planning permission. Northern Ireland has said, “We want these projects to go ahead,” but because of the constraints within the legislation on the NIRO closure, these projects will not come forward under the NIRO and I cannot today give you certainty that they will come forward, because those companies involved and those projects do not have a viable route to take their projects to market at the moment.

Lady Hermon: Sorry, Maf; I can see you want to add to that.

Maf Smith: To highlight what you asked about the NIRO, the NIRO closure process was very difficult for Northern Ireland companies and generators, in marked contrast to GB. In GB the decision by the Government to close the RO—the renewables obligation GB—was part of the Conservative manifesto, so it was clear that the Conservatives would wish to do that if in government. When in government, the Government set out clearly what it wished to do and industry was able to engage primarily through the committee process—the Bill process.

But it was not clear until very late on in that process what the relevance and impact to Northern Ireland would be. Generators could not get clarity about timescales and about relevant criteria that would be applied. The Executive set out a consultation on that some months after the UK Government had announced what it wished to do in GB, but that consultation did not resolve for a long time. It was very late in the Bill process and took interventions by the Commons Public Bill Committee on the Energy Bill to seek clarification from Ministers as to impact on Northern Ireland. There were no Northern Ireland MPs on that committee, because when it was set up it was just to be a GB matter, but it became very significant for Northern Ireland and generators there.

Our frustration was a lack of clarity between Northern Ireland Ministers and UK Ministers as to how they were working together to resolve this issue. Perhaps, yes, it was not necessarily foreseen, but the industry was aware quickly of the impact and was raising concerns to the ETI committee direct to Northern Ireland Ministers and to DECC and DECC Ministers.

You did not know who was going to take action. While it was officially devolved, it required those two Governments coming to a solution together, and they seemed unable to do so for a long period of time.

Q98 Lady Hermon: In other words this was not an exclusively English matter, and I know the jargon is “joined-up thinking”, but there has to be better communication, as you are saying. That is the clear evidence from both of you—that there has to be better co-ordination between the devolved Administration in Northern Ireland and the British Government here at Westminster.

Maf Smith: Yes. Northern Ireland could have its own market, but it is judged better to work as a part of the SEM within the island of Ireland and the UK market for how the renewables obligation works. Broadly we see that works well. It allows Northern Ireland to benefit from different parts of those and avoids the complexity of having to set something up just within Northern Ireland itself. But that then requires joint working through the regulators, which broadly works well, but across Governments too. That part can fail sometimes.

Q99 Lady Hermon: That is a very clear point. Thank you. Finally, could we just come to the controversial issue of fracking and say something about the attitude of your organisations to fracking in Northern Ireland: its potential, its concerns and the dangers of fracking? Perhaps you would like to elaborate on those sorts of issues.

Maf Smith: We are an organisation that represents companies engaged in renewables. I have already said that we see renewables as part of the mix. Gas will be an important part of that electricity mix. We do not have a view on where that gas comes from. However, we have talked about the planning system and how it impacts projects. It is important those planning systems, as we said, are robust, but also that they treat different generation sources or infrastructure projects equally.

Lady Hermon: Thank you. Rachel?

Rachel Anderson: I work in the industry. I am passionate about renewables, so in my mind renewables are one of the best resources to do, but I am also aware that we need a mix in our electricity system. That will require other sources as well. Whatever we choose, it has to be at the least cost to our consumers and to the best benefit of the Northern Ireland economy.

Lady Hermon: That is a very diplomatic reply.

Gavin Robinson: Two successful dodges.

Lady Hermon: Thank you. I did put you on the spot, but thank you for the replies.

Q100 Dr McDonnell: I have a couple points that I would like to come in on. There is a little bit of argument or contradiction in the finances, because on the one hand you seem to be suggesting renewables is now competing on price with gas, and yet you are saying that renewables needs a large support system to scale it up, and yet on other points there was some suggestion that wind generators in Northern Ireland were making profits in the region of 69% or 70% or had an operating margin in that region.

Surely there has to be a funding system somewhere, a banking system or a hire purchase system, for want of a better description, if a company is able to have that sort of margin or is able to compete with gas on price. Is there a financial factoring problem there, where basically instead of requiring subsidy, there could or should be a funding flow?

Maf Smith: That gets to the heart of how these auction or contracts for difference systems work. It is worth acknowledging that within the previous systems, led by the NIRO and in GB the RO, renewables has benefited from support and from subsidy. It is worth acknowledging that. Consumers have funded that. It has brought industry to the point, because of technological development and roll-out, where costs have fallen, particularly for wind but solar is very close behind. At this point, we therefore do not need subsidy.

It would be wrong of us to say, having had subsidy and got to the point where it is not needed, we should prevent that technology from coming forward into the market, because this is the point where the consumer can benefit if we continue. If you look at the analysis done for DETI, it shows that moving from the 25% level up to 40% has no additional impact on consumers. That is partly because the infrastructure that we need is being put in place. Those commitments have been made, but it is also because of the reducing cost.

How the auction process works—and how the CFD in particular would work if Northern Ireland chose to participate in it and if the UK Government and Northern Ireland agreed to run future auctions for lower cost technologies—is you run an auction, so essentially you award the contract to the lowest price technology. Within those you set what is called a strike price. If the price for electricity were to go above that, the generators pay back. Essentially it caps the liability for the consumer. It prevents generators making large profits if the market situation changes. In return for generators essentially agreeing that cap, they get price stability so they can invest and bring forward the generation we need. Those auction processes are structured.

We have had these RO systems that pay a fixed amount. The decision was made to finish those. Our concerns about the NIRO were about how it was closed, not its closure. Moving forward, those auction processes do exactly what you are asking for. They help manage the price for consumers and prevent either the price spiralling or the consumers getting a bad deal.

Q101 Dr McDonnell: I go back to the question still: is there not space, or if there is that level of profit being made, can that level of profit or operating margin only be made with the guarantees in place? Are you suggesting that, if you pull out the guarantees or pull out the support, that level of profit cannot be sustained?

Maf Smith: Because of the structure and the operation of the wholesale market and the pricing within the wholesale market, that price is too low for any generator to be able to build and operate a scheme at profit. This is not a point about renewables; this is a point about electricity. The result is that no electricity generator is going to want to come forward and build a scheme in Northern Ireland because of those low prices. I have already outlined some of the reasons they are low.

This is not a problem specific to Northern Ireland. The UK Government has looked at that and markets around the world are looking at this. We are using auction processes to send

signals to the market about which generation comes forward while making sure that the lowest cost schemes come forward.

We have a challenge. If we just said, “Let’s see what happens with the market,” nobody would come forward until prices spike and the consumer is starting to pay a lot for electricity. Instead, it is better to have a structured and regulated market that can send those signals but equally put in place those protections for the consumer.

Q102 Dr McDonnell: Thank you. On another point, we touched very briefly on interconnection. Is there any significant difference in renewable policy between Northern Ireland and the Republic or are the policies relatively similar?

Rachel Anderson: In the Republic of Ireland, there was a recent White Paper, and the White Paper sets a clear vision for what the Republic wants to see in terms of energy. It has a commitment to renewables, a commitment to creating a new support scheme that brings forward the least-cost technology, which enables them to harness indigenous resources, such as wind and solar, in the most cost-effective way. There is a difference there between the Republic of Ireland and Northern Ireland.

The Republic of Ireland also is managing to take or benefit from direct foreign investment as well. We see large data centres wanting to come to the Republic of Ireland because they are able to provide guaranteed security of energy supply at the least cost, which Northern Ireland could take advantage of if we managed to bridge some of those differences and align a policy that is better for our consumers, better for our businesses and supports least-cost generation coming forward.

Q103 Dr McDonnell: Are you saying they are better organised than us?

Rachel Anderson: At the moment the difference is that the Republic of Ireland has set a vision for what their future looks like, and Northern Ireland has not set that vision.

Q104 Dr McDonnell: Is there much we can learn from the vision?

Rachel Anderson: From that, the Northern Ireland Executive needs to have a look at what our energy future looks like, not just to 2020 but the decade beyond that, and say, “This is what we are going to do. This is how we are going to ensure that not only our consumers but our businesses and economy benefit from a secure, sustainable and affordable electricity system.” We need to be making that move now. We need to be utilising that to move ourselves to a low-carbon economy in Northern Ireland.

By doing so I believe that we can attract direct foreign investment from large data centres and other organisations that would want to be in Northern Ireland. That can only be a benefit for the economy.

Q105 Ian Paisley: Twenty years ago I heard that tidal power was the future and today you are telling us that tidal power is the future. Give us a real overview of where we are with tidal power, please.

Maf Smith: It is a technology that is at the early stages of commercialisation. If you look at some of the significant companies in the market, we have a company called Atlantis Resources, which is at the moment constructing and installing a scheme on the north coast of Scotland near the Castle of Mey. That is one of the first schemes being developed.

We have a range of companies developing tidal stream and testing it at EMEC. The Scotrenewables device that was recently built at Harland and Wolff is about to start tests at EMEC and then that scheme is looking for further deployment. There are schemes in Northern Ireland as well, with sites for consent, where developers are looking at the technology they will install.

The challenge tidal faces is it is not at a point where it is being rolled out and can compete. It is at the point where it is learning how to scale up and learning about how to make sure the technology can work effectively in the water and has high operating load factor. It is judged to have got to a point where it has solved the technical challenges. The research that is needed is about improving the technology, not about proving it, if that makes sense. Behind tidal is wave power. Wave power still has further research to do to essentially prove itself as to its ability to operate at scale. Globally there is a lot of interest in wave. Then there is tidal lagoon, where you have essentially similar to hydro schemes but operating at sea. An interest in those in the South Wales coast is at the moment in development.

Q106 Ian Paisley: By far, in theory anyway, tidal power would or should be the most efficient and most reliable because it goes on the tide, whereas wind, as we have heard, may not always be as reliable and solar might not always be as reliable.

Maf Smith: Tidal is predictable to the end of time, provided our moon stays where it is.

Ian Paisley: I do not know. Apparently if we vote no or if we vote to leave, that might change.

Lady Hermon: That is not an argument for the remain campaign.

Ian Paisley: That could be catastrophic.

Maf Smith: I have not looked into that, if that is the case. Your point emphasises what we ourselves have said—that having a balanced mix is a good way to structure an electricity system. Having wind alongside other renewables is good. Tidal and wind complement each other very well. Each technology has its pros and cons—different characteristics. The system operator can manage that. Wind is variable but predictable. Tidal is inherently predictable, but you cannot change when it operates. You have high tides at three o'clock in the morning some days as well as five o'clock in the afternoon when you have peak electricity.

Q107 Ian Paisley: You probably cannot tell us how long a piece of string is, but when do you think that will be harnessed, from your knowledge of where the industry is?

Maf Smith: The roll-out of the tidal industry is in the next decade. We have projects in now. We are at a critical stage in our industry. We are seeing these first larger scale schemes now working. There is the SeaGen turbine that has been in Strangford Lough. Atlantis bought the assets of Siemens that they are now developing off the north coast of Scotland. We have seen them using that early stage knowledge that they developed when testing off the North Devon coast and in Strangford Lough to develop a larger scale scheme off the north coast of Scotland.

The success of them and a few others who are at that critical point will be judged on that roll-out. If those schemes are successful in proving the operation at scale, it will open up that market and we can expect tidal to come forward across that next decade and to start to bring its costs down to the point it can compete with technologies like, for example, offshore wind.

Q108 Ian Paisley: Lady Sylvia said she was going to be controversial and ask you about fracking. Let me try to be more controversial and ask you then about where new nuclear is. Where does fit into your overview of the supply of electricity in the future to Northern Ireland?

Maf Smith: Again, as we have said we focus on renewables. We see that as very important for Northern Ireland's future. It is an indigenous resource and it makes sense to focus on it. The UK Government wishes to see new nuclear, and thinking about the GB market—and speaking as RenewableUK—we see nuclear being an important part of that energy mix. It is important in terms of how we decarbonise. But the Northern Ireland situation is different. It is a decision for Northern Ireland to make about where its sources come from. We see it as right that it is focusing on renewables, given that fantastic resource that Northern Ireland has.

Q109 Chair: One of the first new nuclear power stations could be at Wylfa. I know it has to go into the grid, but that geographically is not a million miles from Northern Ireland. Are there any potential advantages of that?

Maf Smith: I do not have a comment on the advantages of the different nuclear schemes that will come forward, but like the renewables sector, nuclear operators need clarity over how the market will work long term. Our electricity industry is an infrastructure industry, and to make sure that we have the power needs into the future, these are long-term investments. Having those stable markets is beneficial to companies, be you wanting to build a wind farm or a nuclear power station or gas plant.

Q110 Nigel Mills: I am just trying to get my head around the overall picture you have here. What do you think the Northern Ireland energy mix will look like in 2030? What percentage do you think will be gas and what will be renewables and what will presumably be other?

Rachel Anderson: I wish I had a crystal ball. Just considering renewables at the moment, if nothing else changes we will see the same mix, but if we are talking to 2030 perhaps some of those earlier projects will have been decommissioned by then. Northern Ireland has to consider at the moment not planning the mix and proportion that we need of all the

items. Northern Ireland has to commit to saying, “We want the least-cost generation for our consumers in Northern Ireland,” and then allowing the market to bring forward generation that depresses wholesale prices and that gives the benefit to our consumers, instead of proportioning out what we need of each type of technology.

Q111 Nigel Mills: I presume you have a view of what percentage could be renewables on that sort of timescale.

Maf Smith: We talked earlier about the role of targets, and the targets have been very helpful in creating the investment climate. In part those targets have helped to drive levels of investment through the NIRO and RO in GB. The 40% is still very valuable as an aspiration for Northern Ireland—how Northern Ireland wishes to see itself—and that definition of an economy that sees low carbon as part of its future.

If we look at, for example, the climate change statistics, the greenhouse gas inventory for Northern Ireland came out yesterday, and you can see that decarbonisation and the energy mix, in the waste industry more than anything else, is allowing Northern Ireland to achieve its aspirations there.

If you think forward, we see that broadly the renewables sector has got to a point where it can compete. We have said this. It has been something we have highlighted to you. The strong message we want to leave you with is that it is about how the markets are structured. The role of Government is not to design the electricity system but to create that framework to say, “Here is how we will use structures like auctions and here is how we expect them to run over time.” The role of Government is to say, “Judging by our electricity needs, the demand, the review of what has happened”—for example if old plant is closing, be that old gas, be that old coal, be that older renewables—“we judge that we need to find capacity of X,” and auctions are run to bring that capacity forwards. All we are saying is that renewables should be allowed to compete in those auctions and we would have confidence in our ability to compete.

The system, the SEM—the I-SEM in Northern Ireland—has in place the regulatory mechanisms, the cost controls, to make sure that technology that comes forward can turn up when needed—can provide system balancing and can make sure the lights are turned on. Renewables companies are looking at dealing with that by making sure they are investing in storage. Many of the companies in the Northern Ireland market are looking very seriously at storage. The market is well structured to solve some of these challenges. Our reticence about saying how much is because it is not for the industry to predict and is not even for Government to know or predict. It is for Government to set that framework.

Q112 Nigel Mills: You do not want to target and you do not want to predict, but I am guessing, as the Northern Ireland renewables trade body, you must have a view on what could be realistically delivered with planning constraints and capacity constraints and whatever other constraints there are. Are you saying you think you could get beyond 40% if the market was right or are you saying, “40% is a bit of a stretch. I am not sure how we would get enough sites and technology through by then”?

Maf Smith: 40% is not a limit.

Nigel Mills: I was asking you what you thought was realistic to achieve.

Maf Smith: Certainly we can go beyond 40%. We have a lot of confidence. If you look at other markets in the world, renewables can be a big part of the mix. It depends on a range of factors. It will depend on the level of interconnection. It depends on relative pricing of technologies and it depends on how quickly these other markets, including particularly storage and demand-side response, come forward.

Rachel Anderson: To give you an idea of the opportunity of onshore wind, we have 846 megawatts operating in Northern Ireland at the moment. Under the NIRO it is anticipated about 450 large scale and 78 small scale will come through. We have another 150 megawatts that is consented and ready to go if it has a route to market. In our planning system at the moment we have around 650 megawatts of onshore wind, and that is not including other elements like solar, wave, tidal to come forward. There is an ambition. We believe we can deliver. We just need to structure a market so that renewables are on that level playing field with any other form of new generation that will come forward.

Q113 Nigel Mills: Within reason, if the market is right and the system is right, you could get to whatever measure was desired. It is not a constraint from your side to say, “Even if the market was wonderful, we could not get beyond X, because there are just not the sites or the capacity or the construction time or the planning-permission capacity,” or whatever else you need.

Maf Smith: No.

Rachel Anderson: No.

Q114 Nigel Mills: You are happy on that. The question I always have on these things is a lot of this comes down to what energy price we are willing to accept and where the level cost of all these things will take us. Do you have a view on where the electricity bills in Northern Ireland will go if this policy continues to be pursued? Do you think renewables can come down so that prices will be much the same as they are now, or do you think it is inevitable that they will have to go up quite significantly?

Rachel Anderson: At the moment Northern Ireland has a difficult decision to make. As we move forward, bills will go up no matter what choice we make, because we will have to pay for new generation to come on to the system, and whether that is renewables or new coal or gas, there is a price to anything that comes forward. When we consider that, it is important to look at what is the least cost to our consumers. We already know renewables, at the current rate that we have, has depressed prices, given the fact we have saved £40 million on fuel imports. If we increase the amount of renewables up to 40%, we get to an £80 million reduction.

Q115 Nigel Mills: What is the least-cost option for new generation then?

Rachel Anderson: It is renewables. It is onshore wind.

Q116 Nigel Mills: What is the cost of those? What is the phrase—the levelised cost of electricity? What is the cost of renewables in Northern Ireland? What do you think you can get that down to per megawatt hour?

Maf Smith: If you look at levelised cost for new gas—

Nigel Mills: I was asking about renewables.

Maf Smith: There have been a number of studies by groups like Policy Exchange and the Committee on Climate Change showing that onshore wind is cost competitive with gas in levelised markets on a levelised price basis.

Q117 Nigel Mills: What is it per megawatt hour?

Maf Smith: In terms of a levelised price of gas, we are seeing about £55 or £60 per megawatt hour. It is important to look at the fuel. Gas prices change because we are part of the world market.

Nigel Mills: I was trying to ask what the renewables prices were. You seem to be giving me a lecture.

Maf Smith: The difference is gas is a fuel whereas wind is a technology.

Q118 Nigel Mills: I get that. I am just asking you what you think the levelised cost of renewables is.

Maf Smith: It has been coming down.

Nigel Mills: This could be a long day.

Maf Smith: It would be easiest if I send you more information supplementary to the Committee.

Q119 Nigel Mills: Sorry, hang on, because the written evidence we have had from Ms Anderson, and she has just said it, is that renewables are the cheapest. I asked you what the cost is and you threatened to write to me with some long-winded thing.

Maf Smith: No. I can send you independent analysis by Bloomberg.

Q120 Nigel Mills: I am asking you what you think the levelised cost of renewables is on that model so I can try to compare it with the price of gas in this situation. How much do you think it is per megawatt hour?

Maf Smith: What we have seen traditionally and what we are seeing now is renewable schemes coming forward, wind particularly. We would be confident of being cost competitive. I can send you the information from Bloomberg that demonstrates that.

Q121 Nigel Mills: The amount per megawatt hour at the moment is what? Is it £100 per megawatt hour? Is it £85? Is it £60?

Maf Smith: There are the RO figures—it is best I send them to you and make sure I get them right, if that is okay.

Q122 Nigel Mills: When you make an assertion that renewables are the cheapest and I ask you what the cost is, you tell me you cannot tell me but you know it is the cheapest but it is complicated. That is a little tricky for consumers out there to understand, isn't it? "We think it is the cheapest, we are just not quite sure how."

Maf Smith: No. I am saying that the way to get price discovery is to run auction processes, so you get the cheapest technologies and the cheapest projects coming forwards. Different wind farms will have a different price, depending on their construction costs etc. and their resource.

From evidence in the market in the UK, particularly the first round of auctions—the first CFD auctions that were held for the established pot—wind farms were receiving strike prices through auction of just under £80 per megawatt hour. If you take that across the lifetime of those wind farms—that is a 15-year CFD and a wind farm will operate for up to 25 years—it is significantly beneath that £80. We would be confident that, if further auctions were to be held, the cost of onshore would come down further.

We are asking for a chance to prove ourselves by holding those auctions. If we cannot get to the point where we can compete with gas, fine; we cannot claim that. It is not about saying, "Okay, here is a price point and you have to compete." It is about saying, "Let the market run and give consumers confidence."

Nigel Mills: We just about got to £80.

Maf Smith: In future, we think our technology cost will fall and others' will rise.

Q123 Nigel Mills: What is current cost per megawatt hour that consumers in Northern Ireland are effectively paying?

Maf Smith: It is variable. Consumer bills reflect the changing price of electricity, but the wholesale market is moving between approximately £60 and £20 per megawatt hour, depending on time of day and the level of demand.

Q124 Nigel Mills: People out there watching this should realise there is quite a difference on the future costs compared with what they are paying now?

Maf Smith: Yes.

Q125 Nigel Mills: I presume what you are saying is that, whatever option is taken, it is quite a lot higher than now.

Maf Smith: The study of where future prices might go—the analysis done for DETI in 2014—highlights the cost of the different components of the bill in terms of wholesale price, in terms of network costs and in terms of the cost of renewables. They show that the most significant price rises consumers will face will be from wholesale prices.

Q126 Nigel Mills: On something slightly different, which is related but maybe a little off, one of the big issues we always have is we think we know how we can green our electricity market, but the home heating situation is much harder, isn't it? Do you have any views on what can be done to make heating your house carbon free? Is that something that is realistic on the 2030 timetable?

Rachel Anderson: NIRIG represents the renewable electricity industry, but it is important in a Northern Ireland context to note the dependency of homes on oil in Northern Ireland. Yes, it is great at the moment. We have low oil prices, but again there is price fluctuation there. In terms of looking at how we would green our homes and stuff like that, it is having a look at what energy-efficiency measures would come forward and how we can do that. That has to work in tandem with decarbonising our overall supply of electricity as well.

Q127 Nigel Mills: If we really wanted to decarbonise how we heat our homes, do we have to have huge amounts of extra electricity capacity so we can have some electricity boiler in our houses or something? Is that the only realistic way of doing it, or do you think there is some ground-source heat options or something whereby we could find a different way out of that? If it was the former, you would have a huge impact on your electricity capacity needs, wouldn't you? You would have to have a lot more electricity capacity than we have if you wanted to heat every house with electricity.

Maf Smith: Electric heating works if you have high-efficiency homes. It is not a good option for low-efficiency homes, which is most of our housing stock. Heat pumps as a technology are developing rapidly and we are seeing that market grow. The area of most interest is transport. We know that electric vehicles are coming. It is not clear how quickly that market will develop and how quickly prices will fall such that we see rapid consumer uptake. That is the area where we could see an increased demand for electricity.

If it were to happen, it creates a good opportunity because it increases the battery network. You can use consumers and their cars to help balance the system. That is happening in small parts of the network in America. We are seeing evidence of that, but we need to be aware of it as to the markets here. We do not know how quickly it might happen, but there will be challenges in rapid switchover but some benefits too ultimately.

Q128 Danny Kinahan: I have two quick questions. You mentioned that there was nothing in the programme for government on renewables. What else is missing in how we work? Do we not have a regular meeting system between ETI and what was DETI? Is there no set system going on? Are we not talking to each other? What is missing?

Rachel Anderson: NIRIG has consistently met with the then DETI. We have in Northern Ireland reduced the number of departments. Elements have shifted round, so that is

bedding in at the moment, but again we will be engaging the relevant department and officials as well as engaging at an elected-member level as well to ensure that we are cross-party providing the information that is required.

Q129 Danny Kinahan: I was referring not to what you are doing but more to what is missing in how we handle our electricity. Is DETI not talking to ETI or the equivalent? What else is not going on that should be happening so we get a joined-up strategy?

Maf Smith: Those things may be happening, but if they are it is not in public or reported on. As we have a set of devolved powers that still require close co-operation with other governments, it would be beneficial if it was clearer how those things were being managed.

If we had from the new Department for the Economy a clear vision, as we have said, about the energy future and the role of renewables in that, it would then be clear as to how the Northern Ireland Government was seeking to use its powers and work with the UK Government or the Government in Ireland to do that and how they were going to co-operate. For example, will Northern Ireland join the contracts for difference regime? If it did, how would it and the UK Government work together to deliver that?

Lady Hermon: Really it is greater transparency about the conversations and the discussions between the Northern Ireland Executive, the responsible Minister there, and the equivalent Minister here in this Government at Westminster. That would be very helpful to all of us on a wide range of things, but let's start with energy.

Q130 Chair: Sorry—I will come back to Danny in a minute. Do you want Northern Ireland to join the contracts for difference regime?

Maf Smith: If you look at the ability of renewables to compete, if there were to be such auctions, Northern Ireland benefits in a number of ways. It has very good load factors for wind farms. It is windy, to put it in common language. It also benefits from competitive costs of construction and operation. We would judge that Northern Ireland would be able to compete against schemes in Scotland and Wales in particular, and prove themselves to be lowest cost. Therefore, it would benefit the Northern Ireland economy to have those schemes developed within Northern Ireland but the cost supported across the UK.

Q131 Chair: You would want them to join? You would want Northern Ireland to join?

Maf Smith: It makes sense.

Chair: That is okay. I just wondered what your policy on it was.

Maf Smith: Equally, on tidal if we want to see tidal schemes come forward in Northern Ireland—there are schemes in Northern Ireland—again the route to that we would see would be through the contracts for difference regime. That requires Northern Ireland Ministers to engage with UK Ministers on how to support a technology like tidal through CFD or an equivalent auction.

Q132 Danny Kinahan: I have a different angle on this. I have had various emails. I am all for renewables, but there are those who doubt all the things that are being said are true. I will read out a line from one. They doubt whether we can provide a clean, green, secure and safe supply of cheap electricity without CO₂ emissions. Is there anyone who challenges you or audits you and checks that everything you are saying is true? You are confident in what you are doing, but is there anyone just quietly checking it, which you should not be frightened of, who says, “Yes, wind energy is this way but it could be done better.” Is there anyone checking up on what you are doing?

Maf Smith: Individual schemes are essentially audited through the planning system. For a scheme to be consented it has to prove itself. There are strict rules as to its performance, how it manages environmental impacts, visual impact and noise. For any scheme to be built, it has to go through a set of checks.

For the tech industry as a whole, for the technology, I would have two answers. One, the proof is in the pudding. We have 25% of our electricity. When people say, “It does not work,” you have to say, “It clearly does, because it is working now.” Then in terms of its ability to deliver on a system basis, that is policed by the system operator and the regulator. Its ability to deliver in terms of its cost and its carbon reduction contribution is audited and reported on by the Committee on Climate Change.

Q133 Danny Kinahan: The Committee on Climate Change. Who else in planning? Who are the experts in planning?

Maf Smith: That is quite a lot of people.

Danny Kinahan: It is.

Maf Smith: We are an industry that is proud of what we have achieved and we see we have proved ourselves, partly because of the support that has been received through previous subsidies, and we see ourselves as ready to deliver. We are part of Northern Ireland’s mainstream in terms of its electricity industry, and I am confident that we can be a bigger part in future and a part that is demonstrably beneficial to the Northern Ireland economy.

Q134 Chair: Any final questions? Is there anything we should have asked that we have not asked?

Maf Smith: There is one point. In your previous evidence session with the University of Ulster, there was this point about having reached a sweet spot at roughly around 25% and should we therefore stop. I would highlight that comes from the analysis DETI commissioned on delivery of the 40% target.

That sweet spot exists for a couple of reasons. First, under the NIRO, Northern Ireland consumers did benefit from cross-subsidy from GB consumers. If Northern Ireland were to participate in the CFD, there would not be cross-subsidy but there would be shared costs across the UK. That study still concluded that delivery of the 40% was still the lowest cost route for supporting consumers and it set out the costs. I was not clear when

asked about costs, but that report did set out very clearly the cost that Northern Ireland consumers would face if it delivered the 40%, and showed that costs will fall compared with other options. Costs are going to rise, but this is the least cost route we have available.

I would say that while, yes, we have benefited from the arrangements and that has allowed us to get to 25%, the investments that have been put in place mean that moving from 25% to 40% does not impose additional costs within Northern Ireland to the consumer but provides additional economic benefits to Northern Ireland from the construction and development operation of these new projects and the avoidance of fuel imports. It seems absolutely sensible for us that we should continue. While we cannot recreate what has happened, we still have a lot of opportunity ahead of us.

Lady Hermon: We have to stop the lights going out in 2021.

Chair: It has been a very useful evidence session. Thank you very much for joining us. Thank you.