

# Committee for Enterprise, Trade and Investment

## OFFICIAL REPORT (Hansard)

Northern Ireland Renewables Obligation: Lightsource

13 March 2014

#### NORTHERN IRELAND ASSEMBLY

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#### Members present for all or part of the proceedings: Mr Patsy McGlone (Chairperson) Mr Phil Flanagan (Deputy Chairperson) Mr Steven Agnew Mr Sydney Anderson Mr Gordon Dunne Mr Paul Frew Mr Fearghal McKinney Mrs Sandra Overend

Witnesses:	
Mr Nick Boyle	Lightsource
Mr Richard Green	Lightsource
Mr Conor McGuigan	Lightsource

**The Chairperson:** Before us today are Lightsource CEO, Mr Nick Boyle; Mr Conor McGuigan, its business development director; and Mr Richard Green, senior business development manager. You are very welcome and I appreciate your taking the time to be here. We are here because we had a session with the Department previously, and it would probably not be overemphasising it to say that it was short on detail. You have the opportunity to be with us today and explain your perspective on it, so that members are better informed in coming to a decision around this.

I do not know whether you were here for the start of the previous session, but the format is that you have up to 10 minutes in which to make your case, and we then have a members' question and answer (Q&A) session as they try to elicit more details. Thanks, again, for being with us and please continue.

**Mr Nick Boyle (Lightsource):** Thank you Mr Chairman and Committee members, and thanks for inviting us to take the opportunity to explain in a little more detail what we believe is an exciting and potentially big contributor to the renewable mix in Northern Ireland. I hope to keep this briefer than the 10 minutes because I am interested in the Q&As.

I will start by giving a bit of background on what we see as being, and to remind everyone of, the obvious advantages to renewables, and, more specifically, of solar energy in Northern Ireland and everywhere else in the world. First, we are talking about local power generation. So, we are, if you like, severing the requirement to rely on fossil fuels from the Middle East or from Russia for gas etc. Therefore, it is true, home-grown electricity generation. It is free-source; clearly, the sun comes up and goes down every day. It may not be as sunny as we would like, but it still comes up sufficiently.

That obviously has to be taken in the context of the likes of Kilroot and Ballylumford and their reduction, in 2015, of 500 megawatts of their generation. Exactly the same applies to Northern Ireland as to the main markets in Great Britain, where its electricity generating capacity is being reduced by 24% over the next eight years. That backdrop is important.

We also need to be mindful that what we are creating here is a significant income for the rural economy through diversification for farmers into another area. This is just another "crop", if you like. We will obviously pay revenues to them and those are set for 25 years rather than being weather dependent. If you or your constituents have been involved in the floods lately, having a guaranteed revenue from us is obviously a big plus. We will also pay other taxes, rates etc; there is also the fact that grazing can continue on the land, and our arrangement will not affect single farm payments. So, there are two revenues into the rural economy, whereas currently there is on, which is under question in some cases.

At the minute, we have probably 3,000 or 4,000 individuals constructing our sites in Great Britain. We estimate that, with just our company's plans for Northern Ireland, over 500 jobs will be created year on year on the installation, and then there are ongoing jobs on maintenance for the full 25 years. Although that is not immediately identifiable, it is relevant given the current situation in Northern Ireland from a job perspective.

Obviously, something close to all our hearts is the requirement or wish to deliver 40% of electricity by renewable means by 2020. This obviously contributes to that. Although wind seems to be in all our psyches, it cannot be just wind; it needs to be part of an overall mixed renewable portfolio.

Our single company is over 35% of the entire UK market, so we are the largest by a country mile. We are 60% Northern Ireland-owned, which is quite useful as well. The one thing you have to appreciate is that the majority of our sites are in England. We have a significant number of sites in Wales, and we are now moving into Scotland for the first time. Our issue with the legislation has nothing to do with Northern Ireland from a sun perspective, because Scotland is every bit as good or bad — depending on which way you look at it — as Northern Ireland. The issue is simply the special circumstances — unfortunately, they are negative circumstances — that conspire against us in Northern Ireland. We believe that they are definitely manageable, but we basically need the support of this change in law to kick-start the industry. They fall into two distinct areas. It is planning, but not so much planning per se. About 12 or 18 months ago, we had a very productive meeting with Alex Attwood when he was the Minister of the Environment. He put his shoulder behind the whole process. In recent months, we have seen BNRG getting the first application through.

We do not believe that planning per se is an issue in itself. The main issue is the grid. Whether we care to admit it or not, the grid in Northern Ireland is extremely old. I will not say "antiquated", but it is certainly in serious and significant need of an upgrade. Therefore, that needs to be borne in mind. It is about the grid, and, more importantly, the processes and how planning and grid interact. In the few minutes I have left, I will give you a couple of examples.

The first one is that Northern Ireland insists that planning and grid need to happen in series rather than in parallel. That is not the case in GB. In GB, there is a 13-week process for planning and a 13-week process for grid, and they happen at the same time. Here, because of the fact that we have no understanding of solar, we are educated that renewables equals wind. With wind, when you put 10 applications into planning, if only one comes out, the grid people do not want to waste all that time doing a grid application when they know that 90% of it is going to be aborted anyway. That is true of wind, but it is not the circumstance with solar. If you put 10 applications into planning on solar, nine will come out, not one. Therefore, all the issues with aborting costs or efforts are no longer relevant. Although we understand why you have to have planning before they will look at it in the grid, it is not relevant to solar. Obviously, we can give supporting evidence on that. It is not the way they work in GB; the two things happen at exactly the same time. Our normal, from, "Hello, how are you, Mr Farmer?" to operation and generating revenue in GB is nine months. It is rather more challenging here, especially when the planning alone takes six months and that is before they even start looking at the grid. We have given timings in our report.

Other issues include the concept of contestable works. In mainland GB, we can get third parties that have been signed off — Lagan Construction is one of the companies in GB that is signed off — to do work on behalf of the grid. NIE does not allow you to do that; it has to do the work. There are two issues with that. One is price: there is no competitiveness. The second is speed: it has only a finite number of individuals doing the work. Also, in Northern Ireland, you have no independent connection

providers (ICPs). Nobody else can do the connection; it is NIE or nobody. Unfortunately, this monopoly situation again conspires against us.

Probably the biggest issue from a pure infrastructure perspective is that NIE does not allow you currently to tee off an existing line. You could have a perfect field for solar. There could be literally a wire running over the top right-hand corner of it. In the UK, we just tee off that splice and say, "Hey, we're good; we're connected. Happy days."That does not happen in Northern Ireland; NIE will insist that you go all the way back to the substation. That, in itself, might not be an issue, but the substation tends to be three or four miles away, which means that you need planning permission for every single piece of land and from every landowner for wayleaves between the site and the substation three and a half miles away. It can be done and we have done it, but because of their rules saying that they do not want to do it, all those extra bits of work apply. It is effort that does not need to exist but does, and that is why we are saying that process, as well as infrastructure, is relevant.

From our perspective, we would love to do an awful lot of work in Northern Ireland and not just largescale roofs; we want to do ground-mount as well. We are saying to the Committee that the challenges that are being put in front of us today mean simply not that the revenues that you are proposing to pay us are not correct but that the timescales are not correct and are not equal to what is going on in the rest of GB. Therefore, we need more time in order to deliver the same output. That is why we are asking you to defer the drop in the feed-in tariff or the renewable obligation certificate (ROC) to allow for that extra time for us to do those extra works. We are not asking you for more; we are just asking you to identify or be aware of the fact that the timescales mean that you are elongating our processes, which means that you are not being competitive with the rest of the UK. We need to slow down that degradation in the feed-in tariff or the renewable obligation certificate and to be cognisant of that fact.

From our perspective we would love to do stuff on the other elements in Northern Ireland. My wife would be very happy — maybe she would not be happy — because I would be able to fly home on a Thursday rather than a Friday. All that is standing in the way of our making this initial £100 million investment is process rather than, necessarily, our company's appetite.

**The Chairperson:** Thanks very much for that. Some of the issues you have raised are crucial because it is not just the solar that we are having the problems with, it is other grid connections and expansions and not just for renewables, I have to add, particularly west of the Bann. I think that a lot of your work is east of the Bann.

**Mr N Boyle:** NIE told us to focus east of the Bann because it had such problems west of the Bann. We can do either, but the advantage with solar is that as long as the equipment is pointing up, you do not need an exposed cliff like you do for wind; anywhere will do.

**The Chairperson:** Maybe you could expand on a few points. I read your presentation and met your colleague here as well. Could you give us a bit more detail on the total investment? There is an anticipated total investment of £120 million, generating £45 million in revenue for Northern Ireland contractors and creating 500 jobs. I am trying to square that in my head with the practical reality. There is £45 million that is anticipated to go to contractors; what is the scale of the schemes that you have projected that are going to deliver £45 million? That is quite a bit of work.

Mr N Boyle: It is quite a bit of work —

**The Chairperson:** Five hundred jobs is a large number of jobs. Are you going to create those all at the one time? Usually, these projects are a bit here and a bit there, and 500 people employed is quite a number of people.

**Mr N Boyle:** There are about 4,000 on site at the moment who would have said the same thing. We are a three-year old company; we started with six people and we now have 250. Those are not the jobs; that is the core business. We have deployed £1.1 billion in the past three years and currently we have about 4,400 acres covered in photovoltaic (PV). At the moment we have somewhere between 3,000 and 4,000 individuals on site installing our sites.

Mr Conor McGuigan (Lightsource): There are 500 on one site.

Mr N Boyle: There are 500 on one site alone. So, while it is a big number --

The Chairperson: What size is that site?

Mr McGuigan: It is 33 megawatts.

**Mr N Boyle:** It is 178 acres. That is the biggest site; it is a bad example. Our standard sites are 30 or 40 acres. I have some pictures if you would like to see them. If you have not seen these things before they —

The Chairperson: I have seen your photographs.

Mr N Boyle: I will pass those around. We are also on the roof of Bentley Cars.

The Chairperson: I am genuinely interested in how this works, as I told your colleague.

**Mr N Boyle:** Let me answer the question. We are assuming 100 megawatts in Northern Ireland over the next 18 months. One hundred megawatts will cost between £100 million and £120 million. To put that into perspective we have done over 300 megawatts this year alone, so in the scheme of things it is not enormous; it is a natural progression for our business. It will require between 500 and 600 acres of land. That might sound a lot, but for a business that has done the amount that we have done over the past number of years, that is —

The Chairperson: That is your anticipated 500 to 600 acres.

**Mr N Boyle:** For £100 million of investment, yes. Using the standard build-out time, we estimate that we need 500 individuals to install this, if we had that full period of time. Those individuals are not employed for 25 years; they are installed to build the site. A number of them are installed for 25 years, but not the full 500.

**The Chairperson:** That is what I was coming to. You said that there would be jobs in maintenance. I presume, because of the quality of the technology that you will be using, you will not be thinking of a huge number of people employed in maintenance, or else you would have a bit of a problem elsewhere.

**Mr N Boyle:** Exactly. Typically, for every 12 megawatts, our rough rule of thumb is that we would need one member of maintenance staff. We have an operation and maintenance office in Bath with 30-odd individuals there. There are two teams: an asset-management team that monitors all the performance and the reactive team where, if there is an issue, it will go and change a panel or change an inverter — I am not an engineer, so I say these things but I do not know what it involves. It is low-level effort; it is an electrical engineer or an electrician. We are not building a nuclear power station here. It is the same technology that goes on your roof; it is just that there are an awful lot of them.

Mr Frew: I have certain sympathies. I am very much a wind farm sceptic.

The Chairperson: You are obviously a fan.

**Mr Frew:** No chance. I would like to see a greater mix of renewable energy. I am all for a target of 40%, but I would like to see a mix, and I think that this could help. Along with offshore wind, it may be the biggest growth market. The issue that you have already stated is the delay in time for Planning Service and grid connection. Therefore, do you think that it is wise to step down the ROCs over the next three years, given the fact that it will probably take three years, or two and a half years, to go from feasibility studies to identifying land and grid connection to getting permission to install?

**Mr N Boyle:** That is exactly the crux of our point. You said that, in Northern Ireland, it will take three years and, unfortunately, you are right. In Great Britain, the exact same process takes nine months. We want you to identify the fact that it takes a very short time in the UK. The tariff drops on a particular date. If it takes an extra three years, then we are three years behind in tariff where we would have been had we done it in the UK, and that is exactly the point that we are making.

From our perspective, we are not asking for more; we are asking you to slow down the drop in the renewable obligations certificates. If this were a level playing field, we would not be sitting here today. We are developing sites in Scotland, and we are not arguing with them about changing the ROC. The

reason why we need to sit down and argue with you guys is because the backdrop and the grid are not the same. The processes are not the same. There are far more barriers that elongate the process. I absolutely agree with you; we are not looking for anything other than identification or, if you like, an appreciation of the fact that things are not the same here.

Mr Frew: What is the rationale for the GB ROC stepping down?

Mr N Boyle: It is interesting. I will illustrate the point by saying that, in 2007, you would have bought a megawatt of panels from Germany for about €3.8 million. We were buying them at the back end of last year for €430,000. The reason for that is absolutely clear. I better watch what I say, given that I am on camera. A Chinese individual got on a plane, flew to Germany, bought a solar panel, brought it back to China, took it apart and mass-produced to hell out of it. Therefore, not surprisingly, economies of scale meant that that absolutely drove down the price. The reason why you saw such a massive reduction in the cost is because the Chinese mass-produce this stuff. In identifying that fact, mainland GB looked at this and thought that it would set a ROC price at 2 after doing loads of studies, which we were involved in. It would then reduce to 1.6, 1.4, 1.3 etc. Those drops were borne out of the fact that, because of the increased production, they saw a reduction in the price of the main components, most particularly panels. Subsequent to that, however, which is why we should go back to GB and tell them to review it, there has been an EU anti-dumping provision against the Chinese, which now means that the panels that we were buying for €430,000 per megawatt, we are now having to pay €560,000 for, and it is fixed. So, we are not in a position where that degradation in price should be relevant any more. We should be sitting in front of DETI in the UK and saying that, and, in fact, we have sat in front of Department of Energy and Climate Change (DECC) and said exactly that. So, the reason why it drops is because the assumption was that increased production would drive down price. but, in reality, that is not the case.

Mr Frew: As you said, there is an EC minimum price for imported solar panels. That is now in place.

Mr N Boyle: It is in place until December 2015.

**Mr Frew:** It seems to be the case that we are sitting at five megawatts at the present time. The majority of that is on domestic roofs. England is sitting at 3,000 megawatts at the minute.

Mr N Boyle: I would say that it is probably nearer to 3,500.

**Mr Frew:** So, the market has moved on there. People have committed, whereas here I think that only one planning application has been successful for large-scale development.

Mr N Boyle: That is correct. It is BNRG.

Mr Frew: In Downpatrick.

**Mr Richard Green (Lightsource):** We have two in planning, which are a similar size. The largest installation of solar PV in Northern Ireland at the moment is a 50 kilowatt system. To give you an idea, that is about the size of two tennis courts. The size of projects that we are talking about are a minimum of 30 to 35 acres.

**Mr Frew:** So, is the trick here not to talk about this year or next year but to talk about three years down the line? You may well have, as a company, a couple sitting in the fire at the present time, but surely if you have your feasibility studies and your business plans done, and you now find that you are on a cliff edge and if you do not get it done within a year, you will lose a percentage of the ROC, which will affect your business plan.

**Mr N Boyle:** We have to run a financial model today, knowing what we know about the timescales, which is educated by the process, and decide whether this works. What we are sitting here saying is that we would like to spend £100 million, but the financial model simply does not work. If we were able to build it today, or even within the timescales in which we are allowed to build it in England, we would press the button right now and build it, the same as we are in Scotland, England and Wales.

However, the process says that we have to add on 24 months — add on 24 months and you have already reduced it to something that means that our financial model does not work. What we would not want to say is, "Do nothing" and, in three years' time, have a tariff that works. What we are saying

is sort of back up the tariff a bit, which is what has been suggested, so that we allow the numbers to work today, tomorrow and next year.

Mr Frew: Did your company respond to the consultation?

**Mr N Boyle:** I believe that we were the biggest contributor to the consultation. We have had many meetings with Michael Harris and members of his team. We did a 26-page report contributing to it. From our perspective, that was extremely important, and we have been involved in that process. As the largest of these businesses in the UK by a significant margin — we are maybe 10 times the size of our next contributor — it was important to us.

**Mr Frew:** According to the proposals, of which there were four, all except one suggest a step down. Only one proposal, which was proposal three, wanted it at 1.65. It seems that the Department has gone for the lowest. Do you know which proposal was yours?

Mr Green: The Department has gone with the one that we suggested.

Mr Frew: Which was the lowest.

**Mr N Boyle:** It is the lowest, but let us be absolutely clear: the price as you get bigger and as it becomes more business as usual will go down. So, we need a 7% return gross for our investor and to run our company. We do not need a 10% return. You can take a short-term view and try to milk this, but our attitude is, particularly as the largest in the market, and therefore it suits us to be able to do that because we are the largest, what we can actually build these things for to make a fair return. If you do it any other way, you will be hung up in process for the next 24 months. Speed for us is much more important and getting certainty about what is going to happen at the point at which our planning and grid applications get approved.

Mr Frew: You suggested in your proposal 1.6 for 2014-15, 1.5 for 2015-16 and 1.4 for 2016-17.

**Mr N Boyle:** It would be ridiculous of me to say, by adding 24 months to the process, why we would want a tariff higher than what is currently in place in the UK. If we can build on 1.4 in the UK, in light of the fact that you are adding 24 months, all I want is the same tariff to be in place 24 months from now — completely fairly, in our opinion.

**Mr Frew:** Would it not then be better to go 1.5 right across those three years because what you are losing —

Mr N Boyle: Better go to 2.5 but at the same time --

**Mr Frew:** No, that first year, 2014-15, is set at 1.6 but that will not incentivise new people to come in if it is going to take two years at least to get into the installation stage. If you were to reduce that to 1.5, and on the 1.4 in the 2016-17 year have that 0.1 added on, you would have uniformity over the three years. Why can that not be done?

**Mr N Boyle:** I do not think so because we are talking about large-scale and we are talking about ground. If you look in our book, we have 5.3 megawatts on the roof of Bentley. That is a rooftop but

Mr Frew: Is that not a different ROC? Is that not two?

**Mr N Boyle:** The principle is that one basically falls at the same pace as the other. I am using a roof as an example, so there are circumstances, albeit unusual circumstances, where there could be a substation in the corner of a site. Very unusual and I would not put too much money on it, but there could be. What we would not want is to be in a position where we could not do a site simply because we had changed. In other words, it makes absolute sense for it to fall over time but with an eye on the fact that there is a lag between today and the point at which we would connect.

We will connect some things, we believe, next year. All we are saying is that if this was in GB, the majority of what we are working on today would be built within the next 12 months. Some of it will in Northern Ireland but the majority will be pushed out further. Not all, though.

**Mr Frew:** So, the ones that you have in the system, you are looking for this year and next year, so you are looking at 1.6 or 1.5.

Mr Green: One of them.

Mr N Boyle: One of them.

**Mr Frew:** Playing devil's advocate, may I suggest that for any new companies, albeit rival companies, coming in that have to start the process from scratch, they will have to avail of the 2016-17 year, which is 1.4. They are at a disadvantage straight away. Stepping down will not necessarily incentivise the market. It might well just give you a leading edge compared with your competitors.

**Mr N Boyle:** I am not convinced that they would see it that way. I also think that, in order to get people into the market, it is the 1.6 that will get them interested. They will come in, look at the market and see that the process is elongated. If it is 1.5 across the board, they will stay in the UK because irradiation is what they normally look at. We are not hiding behind irradiation. We know that we, as a technology, have to fight with other technologies. We cannot say, "We need more money". We have never said, "We need more money for this because it is not very sunny in Northern Ireland". That is a completely rubbish argument because we have to take what we have got.

**Mr Frew:** If you are saying that they will not come in here and it will not incentivise the market at 1.5, how is it ever going to do it at 1.4 in three years' time?

**Mr N Boyle:** If you are looking to incentivise the market, by all means do. I have no problem with that. We do not have an issue with competition. We do not want to be 100% of the market. You could, by the same argument, have 1.6 level across the board. I am fine with the 1.5 across the board except if for the next 12 months any of the sites, albeit it would be unusual, could have got under 1.6 but fell foul of that and got to only 1.5. In the very unusual circumstances where we got a site that worked, only for that reason would I say that I prefer the way it steps down.

If you are suggesting 1.5 across the board for three years, I am absolutely fine with that because that is better for us, too. We have absolutely no fear of other people coming into the market — no fear whatsoever. In fact, it almost backs up that we are not making a mistake going into this market if other companies come into it too.

**The Chairperson:** Thanks very much for that. Following through at the 1.5, I just want to tease this one out. The embargo on the Chinese stuff is three years' time?

Mr N Boyle: December 2015.

**The Chairperson:** But if you keep it at a flat rate, people will hang back until that is lifted. I will put it to you this way: if other companies are not alive and awake to come in and see opportunities there, that is their problem. That is being frank.

Mr N Boyle: Correct but --

The Chairperson: That is the nature of it.

**Mr N Boyle:** My assumption is you are not talking to just Lightsource, you are trying to kick-start an entire industry.

**The Chairperson:** Totally, but if they are not awake or alive to business opportunities, that is, frankly, their problem and an issue that they have to address in terms of who is running their companies. Do you take the point?

Mr N Boyle: Absolutely. We will have a very busy first quarter in 2016.

**The Chairperson:** If the incentivisation is graded, it is an incentivisation. If it is flatlined, it might not be an incentivisation at all because people potentially could hang back at the maximum profit stage.

**Mr N Boyle:** Correct. Flat is an interesting concept that I have never had suggested to me before. It naturally goes down in price as the sites become bigger and it becomes more familiar. There would be a circumstance, which is the point you are making, that 1.5 — By the way, the EU might extend the 56 cents, but if it did not —

The Chairperson: It might not.

**Mr N Boyle:** It may not. If it did, you could have a bumper number of months because you are getting paid 1.5, which is significantly more than you get in the UK and, happy days, being in Northern Ireland was an advantage. That is why I think realistically that the step down is more normal.

**The Chairperson:** For my own clarity of mind, can you give us a comparative between the ROCs that are available in the UK, Scotland or wherever and those that are proposed here?

**Mr N Boyle:** They are exactly the same as today. It is 1.6 until the end of March and it then goes to 1.4, 1.3 and 1.2.

Mr McGuigan: It completely mirrors it.

Mr N Boyle: It mirrors it.

**The Chairperson:** The drop from  $\in$ 3.8 million per megawatt that you suggested down to  $\in$ 430,000 is bumped up again to  $\in$ 560,000 because of the Chinese thing. How is that being factored in? Quite clearly, that means that your source, which is the panels that you are bringing in, increases the profitability of the company significantly, probably back down to about one seventh, even with the EU intervention.

**Mr N Boyle:** Unfortunately, the two ROC 1.6, 1.5 and 1.4 was set when the panels did not have an EU fixed price. They were set when we were buying at 43 cents. That is my point. We should be sitting in front of DECC. We did do that and said, "Guys, the two ROC 1.6 is incorrect because you were using pricing that is no longer relevant because you have increased the price by bringing in the EU directive that fixes the price of Chinese panels".

**The Chairperson:** Prior to that, it was coming in at  $\in 3.8$  million.

Mr N Boyle: That was 2006. There was nothing in the UK at that point. That was in Spain.

The Chairperson: When was the price drop to €430,000?

**Mr N Boyle:** That was the cheapest we ever bought. I will put it into perspective. When we started building in 2011, our tariff was 30.7 pence. We are now talking about six pence. Overnight, the tariff dropped from 30 pence to 8.5 pence. We have swallowed all that. We are now at 6.5 pence. We are not talking about massive amounts.

The Chairperson: I appreciate that.

**Mr N Boyle:** I do not know how many meetings we had with Westminster to push against the EU directive. If we were in a position where having to pay 56 cents was not in place, we would be in a much rosier place. But we are; we tried to push against it.

**Mr Agnew:** Thank you for the information so far. There are perceptions out there that we could fall into the same trap, to some extent, as we did with biofuels versus fuel. What is your response to that?

**Mr N Boyle:** One of the big advantages with solar, not so much in Northern Ireland but in the UK, is that you have — correct me if I am wrong — grades 1, 2, 3a, 3b, 4 and 5. That basically looks at different land and grades it from arable right the way through to land that is not really worth anything. Our major focus is on 3b, 4 and 5.

Remember that all we need is the land to point up. We do not need it to be prime land. It can be a dirty site, brownfield or anything else because, ultimately, we are interested in what is above the ground rather than what is below it. So, we do not tend to go for prime arable. However, in the

pictures that are firing around, there are seven or eight metres between each of our rows and we go for planning on all. However, on a significantly higher percentage of our sites, we have sheep grazing, chicken grazing and llama grazing. It sounds funny, but we do.

We have a situation where we are basically allowing the farmer to have two different revenue streams. So, he continues to farm the land. We are doing a lot of stuff with the National Farmers' Union. We are bringing in flowers, bees etc. It is, if you like, a form of biodiversity, where you are setting aside some of that land.

The argument is whether we are taking prime agricultural land and using it for solar. From our perspective, we believe that that is inappropriate and certainly not something that we promote. If you talk to the National Farmers' Union in England, you will find that its opinion is that we would have to go an awful long way, over a lot of years, installing a lot of solar, before we would ever be in situation where we were impacting on the UK's ability to feed itself simply by installing PV.

**Mr Agnew:** Just to be clear, there is nothing, certainly in the financial sense, to prevent a farmer switching to using arable land for solar. The document states that it is £400 to £500 per year, per acre. Is that a set price or are there inflationary increases?

**Mr N Boyle:** No, it is index linked. Everything is retail price index (RPI) linked. To be clear, the £400 to £500 depends on the size, because there are economies of scale, and where the grid is. If the grid is in the corner of your field, you are looking at £500; if it is not, you are looking at £400. Ultimately, we run a financial model to get our 7% target. We work back to say, "This is how much we can pay you for your land, full stop".

**Mr Agnew:** I am just looking at the arable land from the farmer's point of view. It is fine to say that it is not your intention, but why would a farmer not switch, given that it is a fairly good price for land rental and, as you say, they can continue to have grazing land etc.

**Mr N Boyle:** Our limiting factor is not farmers who want us to rent their land. That is not what it is about. For us, the limiting factors are where the grid is and where we can get planning.

Mr McGuigan: It also has to be properly sited. Not every farm will work.

**Mr N Boyle:** We have never had the problem where a farmer said, "No, no, I do not want that amount; I want to continue to farm my land for a third of that". We have never had that problem.

**Mr Agnew:** The potential is still there, but your experience in GB is that it is maybe not likely. Would that be fair to say?

Mr N Boyle: That is never the driver. It is grid first, then planning and land.

**Mr Agnew:** On planning, obviously we have seen, certainly in Northern Ireland, resistance. There was a lag, I suppose, between wind developers coming in and community resistance to wind. We have not seen the same levels of opposition as GB has seen, although I think that that is increasing. I am looking at Paul, because he is a member of the resistance. It is increasing in Northern Ireland as people see more and more wind turbines go up. Is that a problem with solar? I know that they are different. As you said, the visual impact of solar is, arguably, less. However, you are talking about a pretty big scales when you look at the size of some of the farms.

**Mr N Boyle:** Install a big hedge and you will not see it. We are talking about 2 metres or 2-5 metres. Do not stick it on the side of a hill so that everyone can see it. By definition, wind needs to be somewhere windy. So, you cannot hide it away, because it has to be somewhere windy. By definition, it has got to be exposed, which means that it can be seen. Visual impact therefore becomes an issue.

With solar, it can be literally anywhere that points up, which tends to be everywhere. So, we can put it in a sensible position. Cornwall is where we have a lot of our sites, as you will see from the map. We build what are known as Cornwall hedges around the outside. That is a 3 metre hedge. There are some pictures on our website of views of our sites from the next field; it is a nice picture of a hedge. You cannot see it, because it is only so high. I have no problem with wind developers or renewable energy of any sort. However, we definitely benefit from the at-least-it-is-not-wind brigade.

Mr Agnew: What percentage of planning success do your company's wind farm proposals have?

Mr N Boyle: About 85%. We were hitting 90%, but 85% is our —

Mr Agnew: Of those 15%, what are the reasons for rejection?

Mr N Boyle: You are probably better covering that.

**Mr McGuigan:** Obviously, local opposition, if they are inappropriately sited or there are neighbours. There is a list of churches that we thought did not have an impact but environmental heritage has come back and said that it thinks there is a view. Of the 85% of those applications, I think six were refusals. Five went to appeal, we withdrew one, and we have won four of the appeals since then.

**Mr Agnew:** There is a planning-related issue coming up with wind. I suppose Northern Ireland was not ready for some of the big companies and communities were not appreciative of the benefit that they could get. Individual farmers etc got a benefit where land was rented, but the community did not. The community is empowering itself now and actually saying, "No; we want to see some of the benefits seen in Scotland". Are there community benefit funds attached to solar farms? Do you have a set level per megawatt or how do you assess what kind of community benefit there is?

**Mr McGuigan:** We are still working that out in Northern Ireland, but 80% of our applications will be assigned and there will be a community benefit. A school will get a system on its roof or we will speak to local neighbourhoods. With all of our applications we have a huge consultation process, which obviously does not happen in Northern Ireland. Of the two applications we have submitted to date, we have had large public consultations in local halls and local schools.

Mr N Boyle: You have chosen to.

**Mr McGuigan:** Yes. It is something that we already routinely do. We are already built for that, so that is what we are doing over here in Northern Ireland. I think that has been welcomed by Anne Garvey from Planning Service.

**Mr N Boyle:** We have built a lot of cricket pavilions, let us put it like that. It is maybe not so strong in Northern Ireland, but that is what we tend to do. The communities are asked what they want.

**Mr Frew:** I have one wee supplementary question about the food-versus-fuel-type argument. You talked about the single farm payments not being affected. Surely that cannot be the case, because trees affect single farm payments. Ecological land affects single farm payments.

**Mr McGuigan:** Farmers routinely ask us and our advice has always been, because it is a legal matter, "It is a bonus if you can get it. It is up to you to go and find out if you can do it or not. This is what I am going to offer you". More recently, I have been speaking to one of our panel lawyers who said that they know of five of their own clients who have actually got it with our solar parks on the site. They have got it but it has been reduced, because they have to take out the posts in the ground, so they work out a calculation. They do not get it where the posts are or where the transformer blocks are, but that is a very small proportion of a field. There are six or seven metres between the panels. There are maybe 2,000 posts, but they are that thick, so it does take out a small proportion of the area for that single farm payment, but not a lot.

Mr Frew: So you are telling me that the solar panel itself —

**Mr McGuigan:** No. Underneath that, because there is grass underneath that so the sheep can graze there. With the ones that we have grazing on, we just take out that area where the post is.

The Chairperson: Just on that, if beneath it is shielded from the sun, its capacity to grow is -

Mr McGuigan: It is not shielded from the sun. You can see from the photographs --

Mr N Boyle: The sun tends to move a bit.

The Chairperson: I am well aware of that.

**Mr N Boyle:** It is interesting, because we actually had a Member of Parliament in England saying, "I am not stupid. I understand the way photosynthesis works. There is no grass", so we brought her to a site. First of all, only 30% of the land is covered, and it tends to be two metres —

Mr Dunne: What about the lack of rainfall?

**Mr N Boyle:** The interesting thing is that the shelter is an interesting positive by-product in that the sheep that graze are not trying to keep themselves warm and can shelter under the panels. You could therefore argue that there is a plus in terms of the weight that they can put on.

**Mr McGuigan:** *[Inaudible.]* solar park is only a quarter of the fields. Even though, in the photographs we are showing you, it looks like the field is covered in blue, only a quarter of that site is actually blue. In between the rows is quite —

Mr N Boyle: In some photos you can see the spaces.

The Chairperson: I am genuinely interested in how this works.

Mr N Boyle: You should come over and see one.

The Chairperson: It might be helpful for us to go and view how it works.

Mr N Boyle: We have brought NIE over. NIE has been over to see one of our sites already.

The Chairperson: Sorry, Paul, were you finished there?

**Mr Frew:** I think it is something that the Committee should scrutinise more.

Mr Dunne: Sorry, Chair, there are other members here.

The Chairperson: It is just that he is picking up on a point there.

**Mr Frew:** It is a valid point. The single farm payment is crucial to farmers, so I think it is something that needs to be ironed out.

**The Chairperson:** There is one other thing that I want to ask you. Again, I am getting into an area that I know nothing about, and I would be the first to admit it, in terms of how much energy it generates. Where I represent, there is a big issue around a major wind farm development. It is very contentious. I want to ask about the efficiency of solar panels versus that of wind. That is probably an engineering or technology question, but that intrigues me with the investment that is made. You may want to expand on that at some other stage and provide me with some details about that.

**Mr N Boyle:** You are comparing apples with oranges. Basically, the way to think about it is in terms of households. Our crude rule of thumb is that a 5 megawatt plant, which is a 30-acre plant in Northern Ireland, delivers energy to approximately 1,000 homes. In the UK, it is about 1,200 homes per 5 megawatts, but it is not as sunny here.

**The Chairperson:** What would it be the same acreage of development for wind? I know that we are comparing apples with oranges, but it is the same level of investment, outcome and those sorts of things.

**Mr N Boyle:** How many wind turbines can you put on 30 acres? It depends on the site, and you could put three on some sites and one on others. However, you would not take the whole site. You would just take a little block around it.

**The Chairperson:** I appreciate that, but I am trying to compare it. Maybe at some stage we could have a further conversation with some of your technical people about that.

**Mr N Boyle:** I can do it in megawatts. The very large wind turbines that you see are maybe 2 megawatts or 2.5 megawatts. There are bigger ones, but the ones here are 2 megawatts or 2.5 megawatts. That is 15 acres worth of solar in installed capacity.

**Mr Dunne:** The Committee has carried out quite a bit of work on the cost of generating electricity. You are probably aware of that. We all recognise that Northern Ireland is one of the most expensive places for energy costs.

There is a perception that renewable generators are making considerable profits and that they are making much more profit than many of the conventional generators. Do you feel that that is sustainable in the long term?

Mr N Boyle: Do I? I wish it was.

There are clear differences between different sorts of technologies. The advantage with solar has always been its boring and predictable nature. Therefore, as a means of creating retail investment, it has been very attractive. If you look at the returns that can be generated from solar when compared to wind there is a significant difference and there are advantages with both. Solar would not generate the same internal rate of returns (IRRs) as the likes of wind, and that is widely accepted.

Our business model is predicated on us delivering a 7% return. That is obviously gross and we then pay ourselves and pay a return to our investors. Wind is in the double digits. Is solar sustainable at 7%? Maybe it could drop to 6% but, if it dropped much further, you would be better not investing the money.

**Mr Dunne:** What about against the other conventional generators. They obviously have large ongoing overheads. Is it fair that you get incentives at the same rate? Is that fair and sustainable in the long term?

**Mr N Boyle:** The difference between us and other generators is that they do not generate but just change coal, gas or oil into electricity. We are different in so much that we are truly generating. If you are comparing our profits to the likes of the Saudis or the Russians and their gas then we are clearly not making anywhere near as much as that. You are making a jump —

Mr Dunne: What about the local generators?

**Mr N Boyle:** The local generators are not creating and there is no feed stock as such. We utilise the sun rather than —

Mr Dunne: Which is free.

Mr N Boyle: Yes, exactly and it is great that it is free. However —

Mr Dunne: You are making big profits. Are those profits sustainable?

**Mr N Boyle:** Let us be absolutely clear on the profits that we are making —"profits" is a weird word. We make a 7% return. However that 7% return not only has to run our company and make our profit but needs to repay the investors that put the money into our company in the first place. So, a 7% return gross is not amazingly high in anyone's book. We are about making a large volume of investment, so that is why we have invested £1.1 billion, but it is certainly not a high-margin investment. Absolutely not.

So, is it sustainable? It is probably more sustainable for longer because of the fact that it is realistic in its returns.

Mr Dunne: Do you do any small-scale schemes or are you just interested in the larger scale?

**Mr N Boyle:** We bought a company called Renewable Resources (Energy Solutions) Ltd last month and it is the largest installer of rooftop in the UK. It has done 770 roofs. We intend to move into that space. We have done 97 schools and 30-odd small-scale, but the majority of what we do is very large

scale. Again, it is a completely different niche, domestic to large-scale. It is not something that we have done before.

**Mr Dunne:** What about the connection charges? Is it much more cost-effective to work on the large-scale than on the smaller? We hear a lot about the issue of connection charges — in Northern Ireland it is about three times higher than in the rest of the UK.

**Mr N Boyle:** That is allowed for, though. If you install a 50 kilowatt system today, you get four ROCs. What we are debating is, for the same electricity, getting 1.6 ROCs. So, yes, there are economies of scale, which is why you can afford to pay us 1.6 as opposed to 1.4, but they can grid-connect into the local three-phase supply, whereas we have to build in an entire substation.

So you are really comparing apples with oranges. It would be really simplistic to assume that you could look at a 50 kilowatt system, compare it to a 5 megawatt system and just set something 100 times the size. Considerations are different, which is why you pay us less for the big ones, because there are economies. However, if those economies come with the price of having to spend massive amounts on grid connection, then it no longer works financially.

**Mr Dunne:** Just generally, what sort of farmer do you think would be interested in taking up your systems?

Mr N Boyle: We have seen a number of older farmers, maybe whose kids are --

Mr Dunne: Have you done some research on that in Northern Ireland?

**Mr N Boyle:** In Northern Ireland, we had a very big stand at the Balmoral show, and 156 people filled in forms asking us to come and sit down with them. If you are an older farmer, if your kids do not want to go into farming etc this is a great way of not having to sell the land and getting a long-term income. Then you have other farmers who have say, for the sake of argument, a couple of hundred acres. We are saying that this is a way for them to diversify, by putting 30 acres, 40 acres or 50 acres into this, along with other top forms of crops.

**Mr Dunne:** On high ground, you mainly have sheep or dry-cattle grazing. Do you see that sort of farmer going for it?

**Mr N Boyle:** It is perfect for us, but there is a visual impact. If the planners would allow us to do that it would be perfect because the farmers continue to get the grazing. As I say, we do not care that the land is high or is not very good quality from an arable perspective.

Mr Dunne: What is the attitude of the planners?

Mr N Boyle: Visual impact.

Mr Dunne: Yes. So, obviously you are not going to put it on high ground?

**Mr McGuigan:** No, there will be instances where you can and surround it by trees, but poor land is what we are going for generally, and in the UK as well.

Mr Dunne: Obviously, poor land tends to be on higher ground, but the planners are not allowing it?

**Mr N Boyle:** No. It is not always. You could have dirty sites, old industrial sites, brownfield sites, old air force bases or World War II airfields. There are loads of examples of land that is not prime, such as poorly drained land etc, which is not necessarily up a hill.

Mr Dunne: Can you compete with dairy production, for example?

**Mr N Boyle:** There is a problem if a dairy cow walks into us — a sheep would not damage our installation.

Mr Dunne: I am not talking about that. I am talking about the cost.

Mr N Boyle: Yes, we would be able to ---

**Mr Dunne:** Dairy farmers are always after more land. They buy land at excessive cost. Can you compete with that price per acre?

Mr N Boyle: We believe that, at £500 per acre, we can compete with that.

**Mr Dunne:** You would be surprised. Planning policy statement (PPS) 21 has come in fairly recently and has relaxed planning regulations on a number of issues. In many ways, it has been very positive. How do you think the planners will react to your schemes in Northern Ireland?

**Mr McGuigan:** We have met them. We met the directors before we even started submitting applications. I used to work in the Planning Service, so I know all the people involved. An application that we have in at the minute is going through the process as I would expect.

Mr Dunne: Where is it for?

Mr McGuigan: It is in Downpatrick —

Mr Green: Lough Road, upper Ballinderry.

The Chairperson: The Downpatrick one is already through.

Mr McGuigan: We have got one down there as well, and we are going for two in Ballymena.

Mr Dunne: Where is the Downpatrick one?

Mr Green: Bishopscourt airfield.

Mr Dunne: I know it well. I will be there on Saturday, all being well.

**Mr Anderson:** I will try to be brief. Thank you for your presence here, gentlemen. Much of what I intended to ask has been asked already. I note that your installations in England and Wales, your prime sites, are more in the south, the midlands, and in the east. Have you any idea for Northern Ireland or are you thinking of the whole of Northern Ireland?

**Mr N Boyle:** They are in the South because, when a grid was not an issue, you went for the sunnier areas, not surprisingly. We started in the South, and we are moving forward. The solar maps, which we might have a copy of, are interesting. The right-hand side of Northern Ireland is sunnier than the left-hand side. I hope that I am not offending anyone with that, but that is just the way that it is. In the same way, the right-hand side of Scotland, is better than the left-hand side. It is just the way that the curve of the earth happens.

Mr Anderson: You would choose any area?

**Mr N Boyle:** We would love to choose anywhere if there were grid and we could get it through planning.

Mr Anderson: As a rural dweller and a representative in local government —

Mr Dunne: How many acres have you got?

Mr N Boyle: I will leave you my card.

**Mr Anderson:** Have you had any dialogue or consultations or talks with farmers, or the Ulster Farmers' Union or rural organisations such as the Rural Development Council, the Rural Community Network or any of those people, who are very much representative of rural dwellers or speak on their behalf?

**Mr N Boyle:** In England, we deal with the National Farmers' Union (NFU), and it is in our offices regularly, and we deal with the Country Land and Building Association (CLA).

Mr Green: We have engaged with the Ulster Farmers' Union here and with young farmers.

Mr Anderson: What have been the indications from the feedback that you have got from them?

**Mr Green:** It is very positive, for the reasons that Nick has pointed out. You have the appeal of diversification and dual income, and you have also elder farmers who maybe do not have anyone coming through following behind them and who are almost looking for a pension. Younger farmers are embracing new technology and new ways of generating income from their land, so it has all been very positive. As Nick said —

**Mr Anderson:** When you say that it is very positive, do you mean that you are getting no objections to it?

Mr McGuigan: The objections are from people who live or are perceived to be living nearby.

Mr N Boyle: It is not the farmers.

Mr McGuigan: Of the three public consultations that we have had so far, about 60% -

Mr Anderson: But, they are part of the community. Wind turbines have come in --

**Mr McGuigan:** Sixty per cent of the people who are coming to the public consultations are coming to say, "What about my land?". It is an unusual situation that I have been in. They are not going there to argue.

**Mr Green:** When farmers hear the level of rental that we are able to pay, some will say that that is not good enough. That is fine and is their prerogative, and they will walk away. We cannot go above those levels for a project to be viable.

**Mr Anderson:** There are farmers who are custodians of the rural land. There is a big swathe of people who, if I am right, quite honestly in my experience, are in opposition to wind turbines and other projects in the rural countryside, even including anaerobic digesters, which we talked about earlier. In one case, I had 400 objectors to an anaerobic digester. There will be these things coming along. Can you see yourselves getting to the position where you get these people on board and encourage them about the benefits?

**Mr N Boyle:** The argument that this is ruining our green and pleasant land is not just a Northern Ireland mentality. We have over 4,500 acres in GB that have had exactly the same considerations. If you do it in an inclusive way and take time to explain the situation, not all of the planning will get through. We will not even choose to put all of the applications in. Steven's question was about how many of the planning applications we put in come out. The answer is 85%, but we do not put in everything that we could do.

Mr McGuigan: Last year, we put 29 in. We looked at 1,350 sites to get 29 applications.

**Mr N Boyle:** You are right. You have to kiss a lot of frogs, but the issue tends not to be the farmer who has the land but the other individuals around there. There is enough land and then some, so it does not have to be difficult. If that one is not going to work, there is plenty more land to go for.

**Mr Anderson:** From looking at your brochure, a lot of the plans seem to be on quite good land. Taking up the point that my colleague Mr Dunne made, I get the opinion that it will be good, flat low land that you are going on if you cannot get the planners to say, "OK, we will let you go on the side of a mountain".

**Mr N Boyle:** Is it easier to build on flat, well-drained land? Yes. Having said that, there are many, many different circumstances. There is no one silver bullet that says that a site will work. You have to take into consideration grid, the local planners, the neighbours and whether or not the farmer wants to diversify into something different.

**Mr McGuigan:** All of those sites are grade 3B. I think that one site that we have, which is not in those photographs, is grade 2. All of those are grade 3B.

Mr N Boyle: It is grazing land.

Mr Anderson: Which is used a lot in Northern Ireland?

Mr N Boyle: Which is used a lot in Northern Ireland. Exactly.

Mr McGuigan: About 95% —

Mr Anderson: — the number of cows on the land.

Mr McGuigan: Well, sheep.

**Mr Anderson:** It has been an interesting debate and discussion. It has been very helpful to listen to you and your ideas. I look forward to our meeting again.

**Mr Flanagan:** Gentlemen, thanks for your presentation. I am sorry that I missed it, but I was under the impression that maybe Hansard was here as we were discussing legislation. Is there any chance of having this transcribed retrospectively?

The Chairperson: We are going to have to have it done retrospectively.

Mr Flanagan: Can we have that done?

The Chairperson: Yes.

Mr Flanagan: OK. So, I have no idea what you said ---

Mr N Boyle: It was really good. [Laughter.]

Mr Flanagan: I presume you are looking for more money.

**The Chairperson:** You shine a light, Phil. [Laughter.]

**Mr Flanagan:** What is your opinion of the system marginal price in the single electricity market? Do you think it is fair that, as the price of fossil fuels continues to rise, the price renewable generators are paid per unit of electricity continues to rise also, or would you be satisfied with some form of a fixed price per unit rise, maybe in line with inflation?

**Mr N Boyle:** First, I have to say that the three people in front of you are not the right people to ask that question of, although we have people who would love to answer that question. From a macro perspective, we are looking at a price of installation and the amount that we can generate from that installation. We want to make sure that one is able to pay for the other allowing us a 7% margin. Other than that, what is going on externally with fossil fuel prices etc are in no way taken into account except that we make a prediction using Pöyry forecasts as to where the long-term electricity pricing is going to go. That is because we are selling this wholesale electricity if it is not plugged directly into a user. Therefore, the price of electricity in a market comes into play, but only in that sense and no other sense.

Mr Flanagan: So that is the price that it is going to be in the future.

**Mr N Boyle:** That is the price that it is going to be in the future. Yes.

**Mr Flanagan:** Do you think it is fair that, as the price of fossil fuels goes up, the price that renewable generators get also goes up? That is the way that system marginal price works in Ireland.

**Mr N Boyle:** We are talking about the renewables obligation certificate, which is the tariff over and above, so the fact that the electricity that we create and are able to sell is then in a market is slightly an aside from what we are talking about here. This is for generating renewable electricity, it is that ROC bit. That ROC bit is not affected by all of those other things.

**Mr Flanagan:** I appreciate that, Nick. You have said that, and I appreciate that you probably do not understand the system marginal price, as well —

Mr N Boyle: It is far too detailed for me.

**Mr Flanagan:** We do not understand it as well as we should. That is not something about this particular piece of legislation and amending the ROC agreements, so I am more than happy for you to go and look at that and talk to somebody who has analysed the system marginal price and come back to us, in writing, if you want.

What I am trying to say is that you are telling us that you need a greater level of incentivisation per unit of electricity to make this profitable, but the price that you are going to be paid for electricity in the future is probably going to continue to rise because the price that you are paid is based on the price of \_\_\_\_\_

**Mr N Boyle:** That is all in our financial model. We are not saying that. We are saying that we want to have exactly the same system as mainland GB. The only thing is that, because of Northern Ireland's special conditions and the processes, it takes 24 months longer than it should do, and all we want is for you to identify that fact and pay us 24 months — in other words, if we were building something today, and we have sort of covered that, it would take nine months, whereas if we were building something here —

**Mr Flanagan:** I have not got on to that point yet. That is another point that I want to cover. The point I want to talk about is how much you are paid per unit of electricity.

**Mr N Boyle:** That is all factored into our model and that is why we are able to say that the model either works or it does not.

**Mr Flanagan:** From 2017 on here, we will have a feed-in tariff (FIT) that contracts for difference (CFDs), which means that if the price or cost of electricity continues to rise, then the level of incentivisation that renewables get will reduce. Do you think that that is a better, fairer system?

**Mr N Boyle:** That system is coming in in 2017, whether we like it or not. I think that it is a more transparent system. It is also more reassuring, from our perspective, because it has moved to more like a FIT-type structure where we know exactly where we are, whereas, at the minute, we have got fluctuations beyond our control. The move to ROC, from ROC to CFDs is not something that we have a problem with, in fact, we as a business have already run off all our financial models. We know where we need to get to with megawatt pricing and we are working toward that now.

So, is the system better or worse? I don't know. Is FIT better than ROC is ROC better than CFD? They are all just different ways to subsidise, kick-start and maintain an industry. From that perspective, if the Government feel that that system is the most appropriate, we will have to put up with it.

**Mr Flanagan:** What we are discussing today is the level of ROC payment that you will get for the next 20 years. If the cost of electricity triples in the next 20 years, you will get three times the price for your electricity but the same higher level of ROC payment. What we are trying to figure out is whether that needs to happen or not. Do you understand the point that I am trying to get at?

**Mr N Boyle:** Yes, but remember that the financial model that has brought us to here says that this does not work on 1.6 ROCs. We pay an awful lot of money to a company called Pöyry to tell us where the electricity prices are going to go over the next —

Mr Flanagan: So you have hedged your investment over 20 years based on an increase -

Mr N Boyle: Absolutely. On its prediction.

Mr Flanagan: So if the price of electricity does not increase, you will lose money?

Mr N Boyle: Correct.

Mr Flanagan: That is fine. That is different. Did you want in on that point?

**Mr Frew:** On the 7% margin, surely that does not just include ROCs; it also includes the system marginal price.

**Mr N Boyle:** Everything, yes. Clearly. We get two forms of revenue, whether it is CFDs or ROCs, and we get to sell the electricity. Electricity is not predictable. ROC is predictable; this one is not. Therefore, if it were all ROC, it would be brilliant, because we would know exactly where we are. This bit is not predictable. Therefore, we pay Pöyry, which is the biggest such company, Redpoint or a number of other companies to tell us what the electricity price will be for the next 25 years.

If we ever want to borrow money from a bank or if you ever want someone to invest in you, they need to see that report in order to say, "Hang on a second, given that I am putting money into you, how much will you get for your electricity?" We do not presume to stick our finger in the air and say, "Hey boys, we are getting 5p today, but we think that we will get 10p in five years". We outsource that to somebody who is infinitely more intelligent and spends an awful lot more money on analysts etc to be able to say exactly what the pricing will be. They take into account fossil fuel prices, the Russian situation and how much reserves the Saudis have left. All that is taken into account to come up with the prediction.

**Mr Flanagan:** OK. Somebody may have asked this already, but I do not understand why the differential between the time that it takes to get a project up and running here and the time that that takes in Britain means that you need more money. Can you explain that to me?

**Mr N Boyle:** As you said, the feed-in tariff drops over time. If I start from a standing start in England today, I know that I will get 1.4 ROCs, and if I start from a standing start today in Northern Ireland, I know that I will get 1.2 ROCs. Yet, everything is exactly the same. So, I am in a situation where I am getting less here than I am getting in mainland GB because of the elongation of the process.

Mr Flanagan: I do not get it.

The Chairperson: To be fair, we spent quite a bit of time on this before you came in, Phil.

**Mr Flanagan:** So because it takes longer to get something up and running here, you need more money? The price of electricity may have gone up by x by the time you develop the project, say, two years' later.

**Mr N Boyle:** That is all taken into account when I tell you that it is not affordable. Have you also looked at the grid connection? Take the example that we used. It is not just about timing. It is about timing and the fact that the grid here is not sufficient. The grid rules say that we cannot tee off a line; we have to go all the way to a substation. In the UK, for example, it would cost us £250,000 to grid-connect a site. However, for exactly the same site in Northern Ireland, it would cost us £875,000. Why? Because your processes are different. They do not need to be different, but they are different. That £625,000 is not magically produced. It has to be produced from somewhere. Where is it produced from you paying us an extra tariff by the virtue of the fact that Northern Ireland is different.

Mr Flanagan: In terms of the ---

The Chairperson: I think that we have sufficiently exhausted that one.

**Mr N Boyle:** Can I make one really important point? We are building an infrastructure that lasts 60 years.

The Chairperson: Very briefly, please, because we have a lot of stuff to get through here.

**Mr N Boyle:** It is a 60-year infrastructure. We are buying all that kit that lasts 60 years. We will use it for 25 years, and anyone else can use it during those 25 years. So, it is not as if we are keeping all the money. We are actually upgrading and expanding infrastructure in the UK that is owned by NIE, not by us. So, that money is not wasted. It is going into infrastructure that is owned by Northern Ireland.

Mr Flanagan: Are you building or sourcing any solar panels locally?

Mr N Boyle: No.

Mr Flanagan: Where are they being imported from? Germany?

**Mr N Boyle:** No. Let us say that we have 600 megawatts, — we have more than that, but let us say that we have 600 megawatts — five megawatts are not from China.

**Mr Flanagan:** So there are only five not from China. Is there not an issue with importing solar panels from China?

Mr N Boyle: There is not an issue with it. There is a pricing issue with it — £560,000.

The Chairperson: To be fair, we covered this in a considerable bit of detail before you came in, Phil.

Mr N Boyle: You are talking about the anti-dumping.

Mr Flanagan: OK. That is grand. Right, Patsy.

The Chairperson: If you want to continue the conversation afterwards -

Mr Frew: Read Hansard.

Mr Flanagan: They are not here. They have not written it yet.

**The Chairperson:** We are going to get it done retrospectively. Gentlemen, thanks very much indeed for your time. This has been very useful to us. You probably shed more light on it, if I can use that analogy, than the Department did.

Mr N Boyle: More heat than light.

**The Chairperson:** Hopefully, heat and light. Thanks very much indeed for your time and for being with us. Hopefully, on some occasion, we as Committee members will see some of that stuff in operation.

Mr N Boyle: Thank you very much.

The Chairperson: Thanks again, and good luck.