



Northern Ireland
Assembly

Committee for Infrastructure

OFFICIAL REPORT (Hansard)

Infrastructure for a Green Recovery:
Northern Ireland Electricity Networks

9 December 2020

NORTHERN IRELAND ASSEMBLY

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Members present for all or part of the proceedings:

Miss Michelle McIlveen (Chairperson)
Mr David Hilditch (Deputy Chairperson)
Ms Martina Anderson
Mr Roy Beggs
Mr Cathal Boylan
Mr Keith Buchanan
Mrs Dolores Kelly
Ms Liz Kimmins
Mr Andrew Muir

Witnesses:

Mr Randal Gilbert	NIE Networks
Mr Paul Stapleton	NIE Networks

The Chairperson (Miss McIlveen): First, I apologise for our lateness, but our last item of business ran on considerably. I welcome Paul Stapleton, managing director, and Randal Gilbert, the head of network strategy. You are both very welcome to the Committee this morning. If you can briefly take us through your presentation, then we will open up to questions from members.

Mr Paul Stapleton (NIE Networks): Thank you, Chair. Good morning all. We appreciate the opportunity to present this morning. We appreciate that your time is scarce, so we will press on.

Starting with page 2 of the presentation, the key message I want to highlight is that NIE Networks is a significant investor in infrastructure in Northern Ireland. You will appreciate that electricity infrastructure will play a key role in supporting climate action and delivering net zero carbon. The electricity infrastructure is also a key enabler of other areas of infrastructure, which more directly comes under the remit of this Committee, including, roads, transport and water. Very little development in the economy does not depend on the electricity infrastructure, in one way or the other.

I will turn to the policy context. The UK Government are committing substantial investment in infrastructure to support decarbonisation, with a particular emphasis on stimulating the economy after the COVID-19 pandemic. Just last month, the Prime Minister announced a 10-point plan for a green industrial revolution that commits £12 billion in Government investment and anticipates leveraging that three times further with private sector investment in clean energy and the broader green industrial revolution. That is anticipated to create 250,000 green jobs by 2030.

Our concern is how much of that will come to Northern Ireland, and whether Northern Ireland will be left behind in this agenda. There is a process to develop an energy strategy that will run to the end of

next year, and we can expect legislative changes arising to go into 2022. We believe that we do not need to wait until the end of that process and have highlighted, in a previous paper published in October, which we presented to the Economy Committee, eight areas where we believe action can be taken now to progress on this journey, both in the economy and moving to net zero carbon.

This morning, we want to touch on three areas more directly related to the remit of this Committee: low-carbon transport, the planning process, and connections to the electricity network.

The UK Government have announced their intention to bring forward the banning of combustion engine vehicles (EVs) to 2030. In less than 10 years' time, we will not be able to buy a petrol or diesel car. We anticipate that that will lead to a major acceleration in demand for electric vehicles. Recent analysis suggests that there could be in the order of 400,000 electric vehicles on the roads in Northern Ireland by 2030. The current charging infrastructure is totally inadequate to meet the needs of even a fraction of that. The most significant barrier, as we see it, to rolling out a public electric vehicle charging infrastructure here is funding. Some of the other issues, including permitted development rights, are being addressed. The issue of charging for electricity use at charging points is being addressed by the Utility Regulator, but the remaining issue is funding.

It is too early in the life cycle of electric vehicles for commercial investment in charging infrastructure. England, Scotland and Wales have strategies in this area; it is being primed for public investment. For Northern Ireland, the options are public investment or investment through electricity bills, and we are willing to play a role if that is considered the optimal option, or a combination of both. If either of those is employed, it might be enough to attract at least matching private investment, but we do not believe that the private sector, on its own, will take on this in the short term until there are enough electric vehicles on the road to justify it.

Our view is that all the relevant stakeholders need to be brought together, including representatives of the motor industry, electric vehicle drivers, the current operators of the infrastructure, and local councils, led by the Department for Infrastructure, to find a way forward. As I say, NIE Networks is willing to play our role in that. Our primary role in this phase is to make sure that the electricity network is fit to take the charging infrastructure. If there is a need for us to play a role in the charging infrastructure itself, we are prepared to do that, subject to an appropriate regulatory recovery model.

We turn to the issue of the planning process. We acknowledge some positive developments in relation to planning for the energy sector recently, including, as I mentioned, permitted development rights for EV-charging infrastructure and the Minister's decision to approve planning for the North/South interconnector, which is a key strategic project. Nevertheless, significant reform of the planning process is needed if we are to deliver the infrastructure needed to achieve net zero carbon and, specifically, to achieve the target of at least 70% renewables by 2030, as set by the Minister.

Planning decisions for major developments in Northern Ireland typically take much longer than comparable projects in GB or, indeed, in the Republic of Ireland. Our target for major development is 30 weeks, but our analysis suggests that, in practice, it tends to be of the order of 53 weeks. The equivalent target in GB, which is met most, though not all, of the time, is 13 weeks, so there is a significant difference.

There is a need for a new strategic spatial planning strategy for Northern Ireland that will properly align with the energy strategy, so that infrastructure can be planned and delivered in a coordinated way, and that would put an emphasis on prioritising or fast-tracking clean energy infrastructure, or clean infrastructure generally, that can support a zero-carbon economy. We have seen some good practice examples of that in other jurisdictions, notably Scotland, where the national planning framework gives priority to low-carbon development. Soon after the COVID-19 pandemic, New Zealand introduced legislation for a temporary fast-track planning process to support clean infrastructure investment to stimulate the economy.

The recent ministerial advisory panel report recommended the establishment of an infrastructure commission to advise on long-term infrastructure planning for all key areas of infrastructure in Northern Ireland, including energy. That would be a welcome step, but it is particularly important that energy is included in that, and it would be a mistake to limit the scope of that commission to just the scope of infrastructure that falls under the remit of the Minister and Department.

The final point that I want to make on this topic is that community support and effective community engagement is always critical to planning, so we are not advocating a planning process that comes with faster decisions at the expense of community engagement. We believe that there is a process

which will allow community and stakeholder input, but still deliver decisions much more quickly, within the context of a consistent overall planning framework.

The third specific topic that we wanted to touch on relates to connecting to the electricity network. One of the key roles that we play in the market is to enable all users of the electricity network to connect, whether it is new housing development, new industrial development or low-carbon technologies or new renewable generation.

Much has been achieved over the last decade. We have succeeded in connecting renewables to the extent that 48% of our electricity now comes from renewable sources. However, there are challenges ahead, both in relation to the cost of connecting to the network and in providing the capacity in a timely way.

We deal first with cost. The cost of connecting to the electricity network in Northern Ireland is typically much higher than for a similar project in Great Britain or in the Republic of Ireland. The reason for that is that we take a different policy approach in how we allocate the cost of connecting, as between the party looking for the connection, and the wider body of consumers. In GB and the Republic of Ireland, the wider body of consumers, through their electricity bills, take a greater proportion of the connection costs. In Northern Ireland, the connecting party pays all the connection costs; therefore, the upfront cost is much higher.

You can make a strong argument for either approach, but the fundamental issue is about the competitiveness of our economy, and we have to change the policy approach to level the playing field so that we can attract investment into Northern Ireland in that area.

The second area is capacity. Like any network, we need to keep investing in the electricity network to provide capacity so that we can cater for future demand, new development, and new low-carbon technologies, including positive projects being proposed by Translink in relation to zero-emission buses, and by NI Water in relation to hydrolysis to produce hydrogen.

We believe that there is a need for greater anticipatory investment, whereby we are investing in the network ahead of need rather than waiting for somebody to come and knock on our door, and say, "We've a particular project or development. Can you provide the network capacity?". We would be anticipating those needs by investing in advance.

That anticipatory investment would be paid for over 40 years. It would add a marginal cost, but only a marginal cost, to electricity bills. We believe that that cost would be more than offset by the economic benefit of increasing access to the network by having ready-made capacity available and lowering the cost for people connecting to the network. It would also enable better planning of the infrastructure and allow us to plan in tandem with other major infrastructure. For example, if there was a new road development, we could maybe take advantage of running a cable underneath that road rather than coming back to dig up the road years later if required to meet a specific need.

I appreciate that the specific policy issues relating to connecting to the electricity network probably do not fall within the Committee's remit, but the issue is relevant to the areas that do, particularly transport, road development and water infrastructure.

The key message that we want to present is that NIE Networks can play a key role in supporting the delivery of critical infrastructure in Northern Ireland. That infrastructure will support economic recovery and progress towards a net zero-carbon economy. I am conscious that the UK Committee on Climate Change is today publishing its advice to Northern Ireland on where we need to go. It is recommending a target of an 82% reduction in carbon emissions by 2050 — effectively, net zero in carbon dioxide, which is the area relevant to energy. So, effectively, net zero on energy, and keeping the remaining headroom for agriculture.

There is a key interdependency between energy infrastructure and transport and planning. We welcome the Committee's interest in those topics, and ask that it continue to engage with them, and look to progress activity on the policy issues that we have outlined.

We are happy to take any questions.

The Chairperson (Miss McIlveen): First of all, thank you for the incredibly detailed briefing that you provided to the Committee in advance. It is very welcome and will certainly help us with some of our deliberations, particularly on electric vehicle charging.

A couple of the barriers for those who wish to purchase electric vehicles have been the cost of the vehicles, which has been quite high, but also the anxiety that perhaps you would not get to your destination and back on the charge. I appreciate that technology is changing and the mileage that some vehicles can now do on a charge is much greater.

Your paper highlights issues with having a patchwork effect if it is done locally, and that a much more comprehensive and holistic approach is needed. Your suggestion for a cross-departmental government EV task force is significant. In discussions that you have had with the Department for Infrastructure and the Department for the Economy, how receptive were they to that proposal?

Mr Stapleton: Both Departments' focus is probably on the energy strategy piece, and I might ask Randal to talk about that. There is a transport policy work stream within that, and it is important that the Departments are focused on that, but that will not deliver an outcome until at least the end of next year, and it will probably be into 2022 before we get specific action. The sense that we want to bring to this debate is that there is an opportunity to move forward ahead of that. I believe that there may be an opportunity to bring the stakeholders together in a specific way, either as part of that process or outside of it, to get more urgent action. Perhaps Randal will touch specifically on the workings of that policy stream.

Mr Randal Gilbert (NIE Networks): You are probably aware of the process that the Department for the Economy is following. It has five thematic working groups that are looking towards presenting policy papers. NIE is a member of the transport group, and we are working with it and through that process to advise into it. On the charging infrastructure, where NIE has made an offer, we see charging happening in a number of places. The home charger will generally be provided by the domestic user, while we would look for destination charging to be provided by businesses and shopping areas. It is about the bit in the middle, however: the public charging infrastructure en route, which is akin to the infrastructure that is there at the minute, and rapid charging hubs. That is a policy being followed in England with its Project Rapid programme to make sure that nobody is outside of 30 miles from a rapid charging hub.

We welcome the announcement made on INTERREG funding for the Scotland, Republic of Ireland and Northern Ireland project to provide 72 charge points. We see that as being a good start to the process, but there will be a need for more than that in Northern Ireland. The current EU electricity directive states that provision of public charging is a market activity, but, as Paul said, there is nobody stepping into that space. We have had a number of enquiries from potential operators, but they have not followed through. A lot of that is do with the cost of connection, which is the last topic that we talked about. There is a space here, and NIE has offered to step into that void and look at partnering with the private sector, if that is appropriate, or act on an instruction or a derogation to get on with its provision. Ultimately, we would find a way in which to move that asset on once operators enter the space as the electric vehicle population starts to increase. A number of options have been presented and are on the table, and we are willing to engage with the Department.

The Chairperson (Miss McIlveen): It frustrates us all when, a short time after a road is built, utilities move in and dig up the road to lay tracking, ducting and so on. You made the suggestion that we should be looking much more collectively across Departments at having joined-up working.

There are a number of major flagship projects, and we will hear more about those today. What discussion have you had with the Department for Infrastructure about working alongside it on the A5 and A6 schemes?

Mr Stapleton: The specific policy changes needed to enable us to play a role in that are more for the Department for the Economy and the Utility Regulator. We do not currently have a mandate to invest in advance of need. If there is a particular road project that we feel that it would make sense to run a cable, or at least a duct, under the road while it is being constructed, we do not have the wherewithal to do that, unless we have a very particular need for that cable at that time. We cannot anticipate that we may need a cable on that route. Until there is a change in the philosophy of how we are regulated around investment, there is not a meaningful discussion to be had with the Departments on anticipatory investment. We engage with those responsible for roads, transport and water infrastructure when we need to move or divert existing infrastructure to allow for developments. We will be part of the planning for projects at that level but are not involved in anticipating future planning needs, which, we believe, there is an opportunity to be.

The Chairperson (Miss McIlveen): What is concerning about that is that a lot of the projects are on the long finger for such a long time — possibly in excess of 10 or 15 years — before they get to the stage of being developed. In the absence of that policy, that opportunity is missed. That is something that the Committee may want to explore with our officials and, consequently, with the Department.

Mr Stapleton: The more that we can join up planning for the different infrastructure sectors the better, particularly as try to move to a net zero economy. There are huge interdependencies among the different infrastructure sectors: roads, transport, electricity and water. An infrastructure commissioner, as was recommended recently, could play a very important role in that regard.

The Chairperson (Miss McIlveen): I have a brief final question on battery storage. A number of applications are now being made for across the country, and those who live in proximity to them are raising objections. Will you comment on how those apprehensions can be eased when we are speaking to constituents?

Mr Stapleton: I will ask Randal to respond to that.

Mr Gilbert: We see battery storage as being an important part of the jigsaw to meet our net zero obligations down the road. As you are probably aware, there are currently 23,000 wind turbines on the network producing renewable power. They do not always generate that power at the time that the demand is there. In some cases, wind power on the network has been curtailed because there is no demand. Being able to maximise wind power and to store energy in the future is a key piece of that jigsaw. At the end of the day, the physical appearance of a battery is not as imposing as a wind turbine. The battery can be connected in an environmentally friendly way.

I would like to hear some of the specific concerns about battery storage. Are they to do with technical issues? It is a fairly static piece of equipment. To me, battery storage is part of the future. It is part of the toolkit to optimise the use of the network in the future.

Mr Boylan: Thank you very much for your presentation. Randal, you mentioned the charge points. East Border Region is part of the corridor group that is working with Scotland and the Republic to develop charge points, and that is welcome. There is an EU derogation that allows network operators to provide charge points. Does that European regulation apply right across the board, or is it specific to here?

Mr Stapleton: It is a feature in the EU directive that applies right across the EU.

Mr Boylan: It is important that it applies right across the EU. Charging is going to be private and public, as there will be en route charging and also home charging. Does home charging place a bigger demand on electricity generation? How do you see it rolling out?

Mr Gilbert: Our studies into the uptake of electric vehicles indicate that potentially up to 80% of vehicle charging will be done at home. That can play into other low-carbon technologies that people might have in their home in the future, such as electric heating through heat pumps, solar panels, powerwalls or battery storage. Having that combination of technologies ultimately allows a customer to use a car not just as a vehicle but as a storage device. Typically, about 80% of charging will be done at home, but there will be lower demand. It will be a more dispersed and distributed type of demand across the network. En route charge points, such as those at a filling station forecourt, will place significant point demands on the network. In a lot of cases, that is because they are in rural areas. Significant investment will be required to upgrade the network to provide the capacity for rapid chargers.

Mr Boylan: The bigger demand will therefore be caused by en route charging, as that will put more pressure on the network itself.

Mr Gilbert: Yes. We envisage a greater point load on the network. The connection cost of some of the applications that we have had to date has been prohibitive because of the size of the upgrade required to connect the infrastructure needed for rapid chargers.

Mr Boylan: In old money, Randal, the island is only about 300 miles long by 170 miles wide. I will come on to the interconnector in a minute, because the project happens to be in my constituency, but,

given what the Chair said about the technology available now and what I have just said to you about the island not being a big land mass, where is the network at on meeting demand at the minute?

Mr Stapleton: Do you mean the network for electric vehicle charging?

Mr Boylan: To meet demand. As I said, can the number of EV points that we are looking at be met by the network at the minute?

Mr Gilbert: There are two things to say there. Take the rapid charging hubs. The optimum connection point will depend on exactly where those are located geographically. We will look at things such as whether there is capacity on the network and how close the network is to the point of connection. What we would like to do is to work closely with the likes of councils, if that is where those decisions are being made, on the siting of those chargers and to be more strategic about where the connection to the grid is made so that we potentially minimise the cost to connectees. That could be done, but we would need to look at it on a case-by-case basis. As I said, some of the applications are for particularly remote rural locations, and such work would require some significant upgrade to the network. The costs of that are prohibitive, so, again, we would like to work closely with councils and potential installers to try to optimise the locations of installations.

Mr Boylan: That should inform the current local development plans.

Mr Gilbert: Exactly, yes.

Mr Boylan: Finally, you mentioned community consultation. I want to mention the North/South interconnector. I know that the decision has been made and that there were 6,500 objections to it. The connector is in my area. There is a connection between Meath and Kildare now, and, as part of its upgrade, an underground alternative has been suggested. In your view, why was there not an underground alternative for the North/South interconnector?

Mr Stapleton: First, I am not familiar with the specific Meath-Kildare project that you mention. Obviously, it is in the Republic. Planning for, and the design of, the North/South interconnector is ultimately a matter for the System Operator for Northern Ireland (SONI). There have been several independent studies done both North and South on the option, among other options, of undergrounding the North/South interconnector. All those studies concluded that there would be technical challenges in undergrounding it and that it would be at least three times the cost. The optimal decision therefore was the overground interconnector, as proposed.

Mr Boylan: I say that on the grounds of knowing that you will need community buy-in for all of this. That is a key element. The earlier that you talk to communities, the better, rather than using a big-stick approach to say, "We need this". You need participation from the community.

Mr Gilbert: I absolutely agree. That will be a significant challenge, especially when we start to talk about the renewable targets coming forward and the uptake of low-carbon technologies. From a demand side, a significant amount of infrastructure investment will be required over the next 10 to 20 years, so we need to make progress. In particular, the area of planning is quite sensitive, particularly around community support. We are committed to engaging with communities on any of the infrastructure developments that we plan to undertake.

Mr Stapleton: That highlights the need for an overall debate and a joined-up strategy on the planning process. What standards do we as a society want? How we will deliver the decarbonisation of society? How will we roll out infrastructure? We as a society could decide to set a very high bar for standards, but that would be more expensive. We could go for low standards, which would be the cheapest option, or we could find the right balance in between. We need a joined-up policy and strategic discussion about that. It is not about any specific project but about the overall framework in which specific projects can then progress. The North/South interconnector has been in the process for about 15 years at this stage.

Mr Boylan: Early engagement is key. I know, because it is in my area, that the project has been going on for 15 years. Early participation and engagement with communities are key to delivering any project.

Mr Stapleton: Absolutely. I agree with that.

Mr K Buchanan: Randal and Paul, thank you very much for your briefing. I have a few points on connection costs and increased capacity, about which Mr Boylan spoke. If a business or company in Northern Ireland has an 800 kilovolt-ampere (kVA) supply, for example, and wants to increase capacity to 1,200 kVA, does that business pay for both voltages? Say that it is a 415 V supply fed by an 11 kV line, does that business pay for both voltages? If there is an increase in the 33 kV line, how far back does that business's voltage supply capacity go?

Mr Gilbert: The current connection charging policy requires connecting customers to pay for any reinforcement or development at the voltage level at which they are connected, plus one voltage level up. For somebody who is connected at low voltage, that would mean the 11 kV network. For somebody who has a supply at 11 kV, it could mean a 33 kV reinforcement cost as well. It is one voltage level up. That is the current charging policy.

Mr K Buchanan: The customer pays for all of that.

Mr Gilbert: The customer pays for 100% of it.

Mr K Buchanan: I presume that there is still a maximum demand charge. Let us say that the customer gets an additional 400 kVA. Can he secure that supply by paying for the maximum demand on that, or can another customer on the line tap into the infrastructure work that that customer has paid for?

Mr Gilbert: We are due to go out to consultation on the exact issue of whether we go to capacity-type charging or whether charging is based on what your application is for. At the minute, if you create that capacity, yes, that could be available. As I said, however, we are due to go out to consultation on a capacity-type arrangement, much like broadband, where you contract and pay for a particular capacity.

Mr K Buchanan: It is ultimately yours until you want to use it.

Mr Gilbert: It would be yours under that, but, as I say, that issue is going out to consultation.

Mr K Buchanan: Finally, on the GB model, where does that sit? Who makes that call? Is it you? Is it the Department for the Economy? Is it the regulator? Who makes the call on whether the business that you are trying to promote in Northern Ireland pays all of it or whether it is distributed across the network or to the rest of the customers by some method?

Mr Gilbert: OK. That would be probably a call made between the Utility Regulator and DFE. Both would probably be involved. We would probably raise the issue of that policy change with the regulator, if the business was going to be affected but, ultimately, DFE would be consulted on that. It would therefore be a call between the two.

Mr K Buchanan: I have one more question. When you refer to consulting or going out to consultation, with whom do you consult? What is your range of consultees?

Mr Gilbert: The consultation will be public, so anybody can reply to it.

Mr K Buchanan: It is as wide as that.

Mr Gilbert: Yes.

Mr K Buchanan: Fair enough. Thank you.

Ms Kimmins: Thank you for your presentations. I have just two questions. You recommend that a cross-departmental electric vehicle task force be set up with representatives of industry stakeholders. Has that come from looking at best practice elsewhere, or is it an initiative that you have come up with yourselves?

Mr Stapleton: The current electric vehicle charging infrastructure, which was installed about eight years ago, came out of a collaboration among all those parties, along with some European funding. The model that delivered the current infrastructure is probably the best starting point. To bring those

participants together again is therefore probably the best starting point to figure out how we take forward the upgrading and extending of the infrastructure. That infrastructure was ahead of its time in 2013 and 2014. It is now behind its time. It is outdated and needs to be upgraded and extended. Our view is that the best way in which to do that is to bring back together the parties that were involved in delivering that initially. Those parties are mentioned in the briefing paper.

Ms Kimmins: That is fair enough. You also said that an infrastructure commission could play a significant role in facilitating energy strategy targets. Can you expand on how its role would be beneficial?

Mr Stapleton: An infrastructure commission can, first, take a longer-term perspective beyond the remit of any Assembly or the planning horizon of a particular regulatory price control within which we might be operating. It can take a 20-, 30- or 40-year view. It can look across the different sectors. For example, we are talking about electric vehicles and the decarbonisation of transport, but taking fossil fuels out of transport in Northern Ireland requires a lot of investment in the electricity infrastructure. That thinking therefore needs to be joined up. You do not have responsibility for transport policy or energy policy over here, but you need, at some level, to bring all the sectors together, and an infrastructure commission could play a key role in providing advice, not just to the Minister for Infrastructure specifically but to the whole Executive.

Ms Kimmins: That is fair enough. Thank you.

Mr Hilditch: The connection costs are detrimental, and no one seems to be stepping up at this stage. What would this look like and what would it mean for the wider electricity base? Would there be an increase to bills? Have you looked at anything as detailed as that at this stage?

Mr Stapleton: It depends on how far you go with the policy, but you would certainly be talking about a fraction of 1%. We have calculated that an extra £100 million investment, for example, in the electricity network, paid for by the general body of consumers over 40 years, would add about 0.5% to a residential bill and 0.1% to the bill of a large energy user. That £100 million would probably cover the additional connection costs for a number of years. The impact on end-user prices would therefore be fractions of 1%.

Mr Hilditch: The Chair made a point about the environmental issues around battery storage. Some people who approach me also query the health impacts. Have you looked at how you would respond to those concerns?

Mr Gilbert: NIE Networks does not own battery storage. Battery storage comes from a private developer. We are not permitted to own battery infrastructure under the current rules. NIE's responsibility would be to provide the connection for the battery to wherever the battery is located, but we would not be able to dictate very much where it is located and the type of installation involved.

Mr Hilditch: You know what folk are like: the first things that come into people's heads when new technologies come out are health issues and stuff like that, but you are saying that it would be fairly safe.

Mr Gilbert: Yes, absolutely. I suspect so.

Mr Hilditch: I have one more issue to raise, which relates specifically to my constituency of East Antrim. At the EP UK Investments (EPUKI) Kilroot site, a green energy part has been proposed. Have you had a look to see how that could complement or integrate with any of your plans?

Mr Gilbert: I have not personally been involved in that. I am aware that options are being considered for how Kilroot will be powered in the future, potentially by using lower-carbon-type fuels, but we would be supportive of any move towards a greener type of fuelling.

Mr Hilditch: It has is a proposal out at the minute. If you get a chance to look at that, it might help you out.

Mr Stapleton: We could have a look at it, yes.

Mr Muir: Thank you for your presentation. One of your slides was on planning decision timelines, where Northern Ireland was compared with England, Scotland and the Republic of Ireland. That was particularly useful, because it gives us a real understanding of the challenges here. What do you see as being the particular issues that will need to be changed to make the planning process much better? A review of the Planning Act is under way, and that will be completed by the end of March. It is important that we feed into that, because lots of targets and objectives are being set that you are trying to meet, but the planning system does not seem to be delivering.

I know that we are stuck for time, but my other question is on the local councils' development plans and how they are including you in the consultations. I declare an interest as a former member of Ards and North Down Borough Council.

Mr Stapleton: I highlighted some points in the slides and in the briefing paper about the changes that we anticipate might help the planning process, but we do not feel that there is enough accountability for the timescales currently. As we have outlined, the current target is 30 weeks, but the average time taken is 53 weeks, so that suggests that we are not even meeting our own targets. If there were accountability in the process to work to the current targets, that would be a significant improvement in its own right. There is a need for a greater strategic direction to align decision-making at a local and national level. That needs to come from an overarching strategic planning framework that sets the context. It is also important that there be an alignment of responsibility for the planning process and decisions with the responsibility for delivering on clean energy infrastructure targets. Local councils are making planning decisions, so they should also have responsibility for ensuring the delivery of clean energy targets in their area so that there is alignment, within which they can make their choices.

Mr Gilbert: It might be worth looking at the statutory consultee part of the overall process. The timeline there is 21 days for a response from statutory consultees. Our experience is that that is not being met for, in particular, cluster developments.

Mr Muir: Northern Ireland Water is looking at hydrogen production. What is your view of that? Northern Ireland Water is the utility for clean water and waste water. How does its diversifying into that fit with energy production?

Mr Stapleton: It is a welcome development. Green hydrogen is produced from electrolysis. That is a process that uses electricity, which should come from green renewable electricity. We have a great opportunity in Northern Ireland to use the abundance of offshore and onshore wind energy to become a hub for the production of green hydrogen. We feel that that is beneficial to the overall energy system. As Randal said earlier, there is sometimes more wind energy available than we can use in the system. If that surplus renewable energy is used to produce green hydrogen, which can be used in specific sectors in which it is difficult to provide electric solutions, such as heavy-goods transport or shipping, there is an opportunity in that regard. NI Water has a very specific need for oxygen in the waste-water treatment process. It makes sense for it to pursue that strategy.

Ms Anderson: Go raibh maith agat for your presentation and the information that you sent. If ever there was a demonstration of the lack of joined-up government, we have seen it here today. You talked about spatial planning, planning, transport and energy, but nothing is aligned.

The Chair asked about the A5 and A6 schemes. The A6 scheme is under way. The A5 scheme has not started, but hopefully it will start soon. You talked about putting a duct underneath the road. If we are going to build back better, surely we want that done now so that we do not have the situation that we had with the previous planning application, in which it was overhead. Surely we need to have that alignment take place so that the duct is underneath the road, particularly when it comes to the A5. Even though you said that you cannot make that decision, have you been engaging? You need the support of the regulator, the Department for the Economy and the Department for Infrastructure.

Mr Stapleton: We are certainly engaged on the implications of the specific projects for the current electricity network infrastructure, such as where we may need to divert or alter the network to cater for road development. We need that specific change. There is urgency around that, because it is putting a brake on economic development currently. The specific change is a remit for us to invest in the electricity network while anticipating future need rather than for that investment to be based on the need that is in front of us today. The policy signal needs to come from the Department for the Economy, and the specific change needs to come from the Utility Regulator. We are engaging with both. The more active engagement across policymaking generally on that issue that there is, the better. That will give it focus and attention.

Ms Anderson: A lot of Ministers talk the language of building back better and having a green economy when they explain what they want to do in the future, but we need to see some meat on the bones.

Large-scale renewable capacity is needed, but we also need to incentivise more small-scale renewable generation and to upscale community energy projects. What work are you doing with communities? I am conscious of what you said about the need to engage with communities and make sure that nothing is done without them, particularly around upscaling small community energy projects.

Mr Stapleton: Randal might comment on that more specifically, but our role is to provide a connection to all energy projects, whether they are community-driven, large-scale, private, public or whatever. Our role is to make sure that we have an electricity network that can cater for all demand.

Certainly, from a philosophical point of view, we support community energy projects. They can play a significant role in the market. Certainly in the Republic of Ireland and in GB to a lesser extent, community projects play a much greater role than they do here because they are incentivised through local council supports.

It is important that we encourage active participation in the energy market through communities, but we need to find the right policy measures to make sure that that works in practice. It is not necessarily about having greater subsidies for smaller-scale projects because that can lead to suboptimal decisions. It is about ensuring that communities can have equal access and participate in projects. In the Republic, there is provision for communities potentially to take an ownership stake in wind projects in their region or to have some stake in the project. That model would be worth looking at.

Ms Anderson: May I ask a supplementary question? Am I hearing you right that, without the further incentivisation that you are talking about, that will have an impact on whether we can decarbonise the generation of electricity?

Mr Stapleton: There is a role for community projects in overall decarbonisation, but, ultimately, to really make a difference, you need big projects of scale as well. A community-driven model alone will not solve the problem.

Ms Anderson: No, of course. I am conscious of that.

Mr Stapleton: There is a role for community projects.

Ms Anderson: Incentivisation is needed, whether it is big or small projects.

Mr Stapleton: I suppose that they need to be incentivised through the overall policy framework. Incentivisation can sometimes be interpreted as subsidies. We need to find a way to decarbonise energy without depending on subsidies, and that is about Northern Ireland being open for business and competitive in areas such as the planning process, access to the electricity network and the cost of connections, whether that is at community level or at larger scale. Those are the issues that we are talking about. I do not know whether you want to add anything more, Randal?

Mr Gilbert: I agree. We have quite a significant customer engagement programme. We have an engagement panel, which comprises the Utility Regulator, NIE and DFE. We have a programme of engagement through that and also independently through our stakeholder engagement plans. As Paul said, engagement would be made a lot easier and simpler for us if we were able to knock down some of the hurdles that we presented today, were able to say that we have an effective planning process and connection cost mechanism that is more aligned to GB and ROI and where we do not become a disincentive to investment. At the minute, we are driving people to those other locations. It would make the process a lot easier for us to have that engagement and to be able to say that we are starting to solve some of the issues that are standing in the way.

Mr Beggs: You said that there is a disparity in the number and amount of connection linkages and charges between Northern Ireland and GB, and, I dare say, the Republic. What proportion of costs are charged elsewhere and how do we compare?

Mr Gilbert: In GB, typically, the method of connection charging is based on the amount of capacity that the connecting customer utilises from a reinforcement. If, for example, a reinforcement for a

connection created 10 megawatts of capacity but the customer needed only 5 megawatts, they are charged a proportion accordingly. It is like an apportionment cost. In the Republic of Ireland, it is probably more akin to where we were pre 2012, where a fixed proportion of the total cost of connection was socialised through the electricity bill. If you remember, before 2012, there was a 60:40 split, with 60% paid by the connectee and 40% socialised through the general customer bill. That is similar to the process in the Republic of Ireland, where about 50% is socialised. There are two slightly different mechanisms, but the concept is that a proportion of the cost is socialised, whereas currently in Northern Ireland, 100% up to the next voltage level is paid by the customer — the connectee.

Mr Beggs: When designing your overall network, it must be hugely complex to try to work out future renewable energy generation, where it might go and what infrastructure would be required. Equally, I understand that the highest electricity load is normally on a still winter's day when there is no wind and a heavy frost. With the closure of some larger plants such as Kilroot, which is earmarked, and the scale of its coal generation, what alternative generation is being put in place to ensure that the lights stay on?

Mr Gilbert: You are right: there are about 1,800 megawatts of renewable power connected to Northern Ireland. That equates to the maximum demand on a cold day. There is a significant amount of renewables. You are right: there are times when the wind is not blowing to meet that demand. The converse is that there are times, such as the middle of the night, when the wind is blowing but the demand is not there. There is a requirement for us to continue to have a certain amount of synchronous generation on the network for stability, and, typically, that comes from our three existing large power stations: Kilroot, Ballylumford and Coolkeeragh. The alternatives that we are looking at are in generation. There are still a number of options to keep that type of plant on the grid. It could be through continued use of gas in the short term, to be offset by carbon capture. Ultimately, it could look towards using some of the hydrogen that is produced as a fuel for generation of that type of plant into the future. There are a number of options. Obviously, it will depend on cost and what are the most attractive options as we head towards that 2050 target.

Mr Beggs: What about alternative power sources to supply the system when wind is not available? How do you plan the infrastructure that is required to facilitate whatever alternative sources come through?

Mr Gilbert: That is a difficult one. You know that we want to continue to talk to people who are in that development field. NIE is the bit in the middle. We are the wires business — the piece between the generation and the customer. Our role is to facilitate and enable the connection of that type of resource. A key decision for us concerns the discussion around offshore wind and whether we want to have a significant offshore wind development that could take in excess of 350 or 400 megawatts of power, which would replace the requirement to have it more dispersed and distributed on the network at a lower voltage level. That type of connection is attractive in that it can have less of an environmental impact than onshore does, because you do not have the plethora of smaller-scale generation for the same value of supply. It requires only a single connection onto the transmission grid, as opposed to multiple connections onto distribution. We need to keep close to the development proposals in generation and ensure that we are strengthening the grid ahead of those needs.

It is a balance. That is where we were talking about anticipatory investment. One thing that has worked well for us in hitting the 2020 target of 40% is the adoption of clusters in certain parts of Northern Ireland where we create a hub for the connection of multiple wind farms. That is a sort of anticipatory investment that minimises the amount of electricity infrastructure required for connection of that type of generation. That has worked well in the past, and it probably has a role to play in the future as we try to create hubs where we can connect centres of generation. However, we would look to have a more strategic approach as to how that is developed. We would look to have a more integrated approach with developers and councils so that we can plan and deliver more effectively the infrastructure ahead of need rather than being reactive and developer-led, as things have been over the past 10 years. It would become more plan-led, integrated and strategic. It would involve the various bodies that are required, including councils and developers, so that we can optimise that development more effectively in the future.

Mr Beggs: You talk about it being "developer-led". How stable or resilient do you think the current grid is?

Mr Gilbert: The grid is stable and resilient. There is still business-as-usual investment required on the grid for the likes of normal wear and tear, asset replacement and general reinforcement. That work still

needs to go ahead. However, more investment is required towards the transmission part of the network to ensure that those renewable targets will be met. However, at the minute, the grid is resilient, and we continue to invest to ensure that it stays a safe and efficient grid.

The Chairperson (Miss McIlveen): No other members have indicated that they want to ask questions. I thank you both for your presentation and briefing. It was incredibly useful and timely. There are issues that we can follow up as a Committee and engage with other Committees on to see some progress. Thank you very much for the opportunity to have the conversation. We will come back to you, perhaps even via research, on our future work.

Mr Stapleton: Thank you, Chair. We are happy to engage in whatever way on the issues.

Mr Gilbert: Thank you very much.