Industry and Regulators Committee

Corrected oral evidence: The energy grid and grid connections

Tuesday 28 January 2025

10.30 am

Watch the meeting

Members present: Lord Agnew of Oulton; Lord Altrincham; Baroness Armstrong of Hill Top; Lord Best; Viscount Chandos; Lord Clement-Jones; Lord Cromwell; Lord Gilbert of Panteg; Baroness O'Grady of Upper Holloway; Viscount Thurso; Viscount Trenchard.

In the absence of Baroness Taylor of Bolton, Lord Cromwell was called to the Chair.

Evidence Session No. 4 Heard in Public Questions 29 - 39

Witnesses

I: Rob Salter-Church, Director of Regulation, National Grid Electricity Transmission; and Jessica Hardwick, Head of Public Affairs and Policy, SSEN Transmission.

Examination of witnesses

Rob Salter-Church and Jessica Hardwick.

Q29 **The Chair:** Good morning. This is the House of Lords Industry and Regulators Committee. We are at early stages of an inquiry looking into issues around the energy grid. I should make a declaration that on the family farm at home we have a number of pylons coming across.

Today we will be hearing from Rob Salter-Church, who is director of regulation for National Grid Electricity Transmission, and from Jessica Hardwick, who is head of public affairs and policy for Scottish and Southern Electricity Networks Transmission. I hope I do not have to say all that twice.

Thank you both very much for coming. You are very welcome. You may have been expecting Baroness Taylor. She is in Strasbourg today. I am Godfrey Cromwell. I will be chairing as the person physically present today.

I will kick off with the first question to you both. I am sure you are aware that the National Energy System Operator will reform the queue for connections. Are those changes going to be enough? By enough, I mean to ensure the timely connection to the energy grid and to meet our clean energy targets. Who would like to go? Shall we have ladies first?

Jessica Hardwick: Thank you for the opportunity to come and give evidence to the Committee today. We at SSEN Transmission welcome the work that has been undertaken by the NESO, Ofgem and industry on connections reform to develop and progress the proposals.

We think that the proposals being taken forward are the right proposals and will have the right level of impact to help rationalise the existing queue to support the delivery of 2030. Ultimately, though, for connections reform to be a success, it will require additional policy interventions—which I am sure we will talk about throughout the session—but what the current proposals do is remove barriers to viable projects that will support the delivery of the clean power ambitions and unlock economic growth.

The Chair: Do you want to, just in bullet form, say what the other things are that you think are needed?

Jessica Hardwick: Planning and consenting reform and land rights reform are probably the two big ones from our perspective.

The Chair: We will be getting on to those, as you rightly anticipate. Rob, do you want to add anything to that?

Rob Salter-Church: The only thing I would say is, from National Grid's perspective, we agree with what Jess set out there in terms of the impact that these reforms would have. We are very supportive and we are keen to see them swiftly implemented by Ofgem. Getting them implemented is on the critical path to us knowing what we need to deliver in our network to support Clean Power 2030.

The one addition I might add on to that list of other enablers that need to be in place is ensuring that there is a process for Ofgem to swiftly give regulatory approvals to the investments that need to be confirmed following the implementation of the connection reform. That will be important for us to ensure we can do our part to deliver our network in time to support 2030.

The Chair: That is very helpful. Can I just take it a little bit further? Will there be legal challenges from people who have been taken out of the queue and, if so, does NESO need protection for that?

Rob Salter-Church: There may well be legal challenges as we go through that process. Any legal challenge would delay implementation. We welcome what the Government have set out in their intentions to look at reforming the planning system in order to remove the risks of legal challenge that could delay.

Connections reform is on the critical path for what we need to deliver from our perspective to enable investment right across the UK. We will wait to see what the Government's proposals look like, but we are very supportive of taking the action to help implement these important reforms.

The Chair: Are you of the same mind, Jessica?

Jessica Hardwick: Yes. To echo what Rob said, we are very supportive of the current proposals from the Government and would be supportive of there being some legislative provisions put in place to underpin the connections reform process.

The Chair: Do you think that legislation will be needed to deal with this issue of legal challenge?

Jessica Hardwick: We would be supportive of provisions being put in place.

Q30 **Lord Best:** My questions are about planning and consenting, rather topical issues. I see in today's papers that local authorities are desperately short of planners, some of them operating at 50% of capacity. How is this affecting you? Do you think that the Government have the measure of this? Are they going to bring forward proposals, not least in the upcoming Planning and Infrastructure Bill, which we are to see shortly?

Could you also explain where the national significant infrastructure projects kick in requiring development consent orders rather than the ordinary planning consent, and whether that system is working well at the local level?

Jessica Hardwick: I can pick up on the first part of the question because you will probably be aware that the consenting system for transmission infrastructure in Scotland differs to the consenting regime in England and Wales. While we apply to the Scottish Government for consents, and the Scottish Government are responsible for running the process for determining those consents, the legislation that underpins the process is reserved into UK law by the Electricity Act 1989. So there is a slight difference in the process that we follow.

We do welcome the work that has been undertaken to date by both UK and Scottish Governments to streamline the existing consenting process, which will ultimately be critical if we are to deliver against the 2030 targets. From our perspective, delays are not in the interests of consumers and local communities supporting the delivery of these targets.

To meet the policy objectives that have been set around accelerating the end-to-end process for delivering transmission infrastructure, we have been asking and working with the UK Government to reform the Electricity Act 1989, and we think that the upcoming Planning and Infrastructure Bill would be the right way to do that.

From our perspective, we have been advocating for a statutory 12-month timeframe for determinations to be made to support the delivery of that infrastructure, and the removal of the automatic public inquiry trigger, which would help to streamline the overall process. We think that would help us to create a common approach across Great Britain for consenting transmission infrastructure, noting that there is a fast-track system in place in England and Wales for significant projects. That is our long-term ask in terms of the legislative reform.

In the short term, we require the Scottish Government to deliver on the commitments they set out in their green industrial strategy around delivering consent determinations within 12 months.

To pick up on your point around planning, that is something we are aware of, and we welcome the commitments that the Scottish Government have made to bolster their resource within the Energy Consents Unit, and the commitments they made in their programme for government around establishing Scotland's first planning hub. It is something that we are very aware of in terms of it potentially being a barrier to getting timely consents for transmission infrastructure in Scotland.

Rob Salter-Church: I will give National Grid's perspective. As Jess has said, things run slightly differently in England and Wales. Planning is clearly a huge issue that needs to be tackled in order to support the energy transition. There is no single silver bullet. We think of three key things that the Government should be thinking about doing in order to reduce some of the planning risks and risk of delays. They have started well in prioritising energy projects through the planning system, but there are three things we would like to see that would make a difference to enable us to bring forward our investments and achieve the associated benefits for consumers and in the rest of the country.

The first is to endorse the strategic planning documents that have been prepared in energy in the planning framework. We have what is called the Centralised Strategic Network Plan, and there will be a forthcoming Strategic Spatial Energy Plan, which are basically central documents that set out where energy infrastructure should be placed from a very strategic perspective to make the system as efficient as possible. We need to see those documents endorsed in the planning regime, both in the National Planning Policy Framework and in the nationally significant arrangements through the energy statement.

Secondly, you mentioned the nationally significant infrastructure regime, so that is the large projects. Some of our works go through that regime, others do not. It is quite technical. We can provide some more information if that would be helpful, on which goes into which regime. The Government need to look at that regime to cut the timeframes and to provide more certainty around how long those processes take. We are looking forward to seeing the Planning and Infrastructure Bill to see the Government's proposals on that.

The third leg that we think needs to be done in order to resolve some of the planning risks is—and you mentioned it again—increasing capacity and capability in decision-makers, but also in statutory consultees. We need to make sure that the Planning Inspectorate, local authorities and others that will engage in this are appropriately staffed with the relevant expertise to be able to deal with the increase in volume of approvals that will be needed in order to implement the Clean Power 2030 plan.

Lord Best: Quite successful have been the attempts to give incentives to local communities so they do not object too much and delay things too long. I was reading about the Viking Link from Norway to Lincolnshire, where the locals welcomed the arrival of the power. Is this the way forward? Should this become more routine? Should we be clearer on what incentives and local contributions can be? Should we endorse this as compulsory rather than a voluntary commitment by the companies involved?

Rob Salter-Church: From our perspective, we think communities that host nationally significant infrastructure should see fair and enduring returns for doing so, for playing that role. We welcome what the previous Government and the current Government have said in their commitment to introducing a framework for ensuring there is some consistent approach to those regimes, to make sure there is a value that goes to individual communities that reflect the different asset types.

The one thing I would say is there is no "one size fits all" about what the right benefit for a particular community is. One of the things that we do at National Grid when we are building new developments is to engage with the community to think about a partnership approach. The enduring benefits that we work on and deliver on are done in partnership with community groups, taking into account the preferences of individual communities, like those in Lincolnshire for Viking Link. We make sure that what we are doing are the types of benefits that are valued by the specific communities themselves that will be hosting our infrastructure.

Jessica Hardwick: I would echo what Rob has said around the important role that community benefits can play as we develop our infrastructure. We are very supportive of the work that the UK Government have done and look forward to them bringing forward their guidance on provision of community benefits for transmission infrastructure.

In addition to the community benefit provision, which we are already rolling out across our network area in the north of Scotland, we have been looking at other innovative ways we can support communities while we are developing our projects. We recently committed to supporting the delivery of over 1,000 homes in the north of Scotland, which, while used to house construction workers during the construction phase of the project development, will then be left to local communities. We have developed that strategy, very much taking forward a place-based approach, working with local authorities so that, as Rob says, each approach is tailored to each individual region.

Lord Best: Interesting. Thank you.

The Chair: Still on the planning theme, Lord Gilbert, did you want to follow up? I have to say that learning to love pylons is a very tough ask, so I wish you joy with that. I do wonder, if you know behind volunteerism comes compulsion, just how volunteering you are going to be.

Q31 **Lord Gilbert of Panteg:** Yes, still on planning but planning conditions rather than the consenting process. We have heard evidence that planning conditions can be disproportionate and inconsistent. Is that your view? Do you think that planning conditions are a barrier to the delivery of infrastructure and are planning conditions sometimes disproportionate or inconsistent?

Jessica Hardwick: I am happy to take that one first. In our experience, planning conditions are becoming more numerous and increasingly complex, with many of them being framed as a pre-commencement requirement, therefore impacting the time it takes from getting consent to being able to start the work to deliver the infrastructure. Another barrier is—coming back to the point around resourcing—having the resource in place to be able to discharge those conditions in a timely way.

Rob Salter-Church: There is nothing in any great detail I would add to that other than to say that, in general, having clarity and consistency, given the volume of projects that are coming forward, could only be helpful in ensuring that we can deliver this collective endeavour of expanding the energy system in order to deliver the energy transition.

Lord Gilbert of Panteg: So it is getting worse, it is not getting better. Jessica, is that your view? I think that you said "more numerous and more complex”.

Jessica Hardwick: Yes, and looking at the expedited timelines we have to work towards to deliver the infrastructure needed for 2030, the current process does not necessarily enable that.

Lord Gilbert of Panteg: On one hand public policy is driving 2030 as an important piece of public policy, and the other hand of public policy is increasing the conditions and the burdens at the same time.

Jessica Hardwick: The ongoing work that is being undertaken by both Governments will, I hope, help to streamline the overall process for consenting.

Lord Gilbert of Panteg: Can we just move on to land rights and consents for the commencement of network infrastructure? Do you think that there needs to be greater consistency in handling rights, maybe with a clear statutory process and a degree of compulsion?

Rob Salter-Church: From National Grid’s perspective, we think that the current system of land rights and compulsory purchase arrangements works well for us and we are not advocating for change. We do not see that as one of the major barriers. The approach that we take is always to try to secure the land that we need voluntarily and revert to a compulsory arrangement if necessary. Where we do that we find the arrangements today work quite effectively.

Lord Gilbert of Panteg: You do not see a barrier there, Jessica?

Jessica Hardwick: I would say it is maybe slightly different. Again, similar to consenting, land rights in Scotland are handled under a different process. From our perspective in the north of Scotland, similarly to consenting, land rights is also on the critical path for delivering 2030 and we need to see land rights delivered within 12 months. It is the same as National Grid: every effort is always taken to reach voluntary agreements with those landowners, but we do have statutory powers should we need to. However, we are always trying to work with landowners to reach those voluntary agreements.

Lord Gilbert of Panteg: Our focus then should be not so much on land rights and the consenting to land rights but on streamlining and making more proportionate the conditions for planning.

Jessica Hardwick: Yes, that is what we would be keen to see, a more streamlined and efficient system for consenting and for securing land rights as per the recommendations set out by the independent electricity networks commissioner.

Rob Salter-Church: We would agree with that.

The Chair: Could I interject with one question? What proportion of your site acquisitions are done through compulsory purchase?

Rob Salter-Church: I can get back to you with the exact number. It is a very small minority. We are talking in the single-digit percentages but I can get the exact number back.

The Chair: That is very helpful. Thank you very much.

Q32 **Lord Clement-Jones:** Rob, you have already mentioned the Strategic Spatial Energy Plan and the Centralised Strategic Network Plan in the context of tying it in with the planning regime. However, can I ask you both: what will they need in order to be a success? What will they need to provide? Do you expect that projects that are necessary to meet these plans will be able to move more smoothly through the planning system, or do you think that further reforms will be needed to improve how nationally significant infrastructure projects are delivered?

Jessica Hardwick: We welcome the NESO's move towards a more strategic energy planning approach. We are keen to see those plans set out a bold and long-term vision that recognises the significant economic contribution of our energy infrastructure. In terms of planning the network, as TOs we have an important role to play. We can support the NESO in providing quite unique expertise in the development of those spatial and network plans.

In Scotland, the transmission network goes down to 132 kilovolts, which is different to in England. We have an important role to play in planning and bridging the gap between the national infrastructure and then the regional infrastructure that is required. We can offer that expertise to the NESO. We would like to see the SSEP consider all forms of strategic demand. We think that is important.

Then, in respect to your question on projects moving more smoothly through the planning system, I would point back to what I have said previously in terms of consenting and land rights reform. Those policy interventions need to be made to ensure that projects continue to move smoothly through the system. We would also welcome these plans being recognised within the Scottish Government's *National Planning Framework 4.*

Lord Clement-Jones: From your perspective, are we heading in the right direction so far?

Jessica Hardwick: Yes.

Lord Clement-Jones: So it is encompassing the elements that you are suggesting. Rob, is the same true for you?

Rob Salter-Church: Yes, I would agree with what Jess says. I will maybe pick three specific things that these documents need to have in order to have the success that we need them to.

The first is for them to be produced in a collaborative fashion, ensuring that all actors in the energy system are involved. Jess talked about the specific insights that the transmission owners have around their networks and how they are developed. It is important that we are a key part of that process in developing those so that we can offer our insights to make sure the plans are as effective as possible.

The second thing is ensuring that, as I said before, these are hardwired into the planning system so that we get the anticipated benefits from streamlining planning decisions.

Thirdly, they should be hardwired into the regulatory framework with Ofgem. One of the important things that these documents will do, the Centralised Strategic Network Plan in particular, is give a clear needs case where there needs to be new transmission investment. We want to make sure that Ofgem's regulatory framework does not re-prosecute that decision, that that is taken as something that has gone through a good due process so that we can streamline those processes, take regulation off the critical path and enable us to be able to get on and deliver the billions of pounds-worth of new transmission infrastructure that is needed over the next five years.

Lord Clement-Jones: Are all the indications that your points will be taken on board?

Rob Salter-Church: From our conversations with NESO, Ofgem and the Government, I think that they understand those requirements and we are confident that things are moving in the right direction.

Lord Clement-Jones: I think that both plans are due in 2026, am I right? Is that early enough?

Rob Salter-Church: It is an interesting question. There is a challenge between making sure you do something with due process and sufficiently thorough to achieve those benefits versus the time it takes to do that. We would advocate for continuing to progress things in the meantime through the current regimes as quickly as possible and not hold things up while we wait for these documents to be done. They are very important but we need to be delivering the investments now. We need to get clarity from the regulator that we can go ahead and fund these investments. We will have to ride two horses at once to deal with those challenges.

Lord Clement-Jones: A specific Scotland question perhaps: from what you say, it sounds as though the Scottish Government are fully on board with working with NESO through whatever mechanism on these two plans. Is that right?

Jessica Hardwick: Yes, that is our experience, that there have been very collaborative relationships between both the Scottish Government and the UK Government and NESO.

Q33 **Lord Altrincham:** We have a question on locational pricing. What incentives need to be introduced to encourage generation and energy demand to locate closer to one another? Should this be done through locational pricing? Can reforms to network charging provide sufficient price signals to be an alternative to locational pricing?

Rob Salter-Church: I am happy to go first on that. Location is an important thing to be looked at, and I think that it is right that Government looks at the role that pricing can play. From our perspective in dealing with this issue, we think that it is important to prioritise implementing connections reform and the Clean Power 2030 Action Plan. That will give us a solid baseline of what the background of generation needs to be. Then you can assess the impacts of what introducing zonal pricing might do in influencing locational decisions.

From our perspective, we see a number of different factors that influence siting decisions, not just network pricing: availability of seabeds for offshore wind, location close to demand centres. A number of different factors need to come into play, including the spatial planning initiatives that we just talked about now.

We are supportive of Government looking at this issue. We think they need to take a programmatic approach to focus on the most important decisions needed in the near term in order to have more locational and, indeed, operational signals flow through. There may be other things to resolve before moving on to the detail of zonal pricing.

Lord Altrincham: To understand that better, does that mean that locational pricing is not for now?

Rob Salter-Church: Government should be looking at it. I would not want to see a distraction from focusing on implementing connections reform and those other things that are on the critical path for us to be able to deliver the energy transition.

Jessica Hardwick: I would just add to what Rob said. In terms of guidance around where to site assets, we would be supportive of seeing the Strategic Spatial Energy Plan as the right policy mechanism to do that as opposed to using market-based signals.

Lord Altrincham: Would it be fair to say that neither of you is very keen on either locational pricing or market-based signals?

Jessica Hardwick: Yes, that is correct, from our perspective at SSE.

Lord Altrincham: You both prefer the long-term plan approach?

Jessica Hardwick: Yes.

Rob Salter-Church: From our perspective, I think that it is right to look at it, but the central strategic planning approach is the one that I think needs to be implemented and focused on first.

Q34 **Viscount Thurso:** I wanted to ask you about ASTI—Accelerated Strategic Transmission Investment—but before I do that, given, Jessica, what you have been saying, I should probably put on the record that I am a resident of Caithness and that one option on the Spittal to Beauly line went through my ground, which I do not think will happen. I would like to ask you a little sub-question there. The two options included one that went right through the UNESCO world heritage site, and the other option, which looks like being the one, is a coastal route. In that tension between the blanket bog world heritage site on one hand, and the coastal route and people on the other, do you think that it is appropriate that the Scottish Government should give weight to the environmental side of the process? Or is the argument that I am hearing that that balance should shift much more towards the need of delivering the infrastructure?

Jessica Hardwick: It is a good question and it ultimately needs to be considered in the round. There are challenging trade-offs that we have to make. Ultimately, the Government have made commitments to deliver clean power by 2030. That is the framework that we are working towards. However, we are always trying to work with local communities and other statutory stakeholders to find the most optimal route for our transmission infrastructure.

Viscount Thurso: Thank you. That had nothing to do with ASTI but I could not help asking the question.

Following the introduction of the Accelerated Strategic Transmission Investment framework, do Ofgem's price controls provide sufficient network investment ahead of need to enable the transition? Do you agree with the suggestion that the ASTI framework needs to be expanded and enhanced to include more transmission infrastructure and, if so, what changes would you like to see?

Rob Salter-Church: We are very supportive of the ASTI framework that Ofgem has introduced. It is enabling us to embark on the largest overhaul of the grid in decades. What we are trying to deliver is £30 billion-worth of investment in the UK, at both transmission and distribution level from National Grid. The ASTI framework is a key enabler for us to be able to deliver that investment plan.

From our perspective, what the ASTI framework does that works so well is it gives you an early signal of the need of investment. It also gives you a long-term view of the quantum and a large amount of investment that is needed. What that enables us to do is to translate that into long-term commitments to the supply chain, so that enables the supply chain then to increase their capacity for producing equipment and for developing skills so that we are growing the skills base in the UK to be able to deliver this plan. It also gives us the certainty for us to be able to go on and make financial commitments to be able to deliver. So there is huge support for ASTI.

What we think Ofgem needs to do now is to take those same principles of a programmatic approach of early confirmation of need and to translate that right the way across the regulatory framework. The next price control—RIIO-T3[1], all that framework—will make a big difference in supporting us to be able to deliver.

---

[1] Because network companies operate as monopolies, with network costs comprising a part of consumer energy bills, they are subject to price controls

What we also need to see Ofgem do in designing that new regulatory framework is to ensure that there is a fair return for investors, recognising that we are in a highly competitive global race for capital in order to decarbonise the system. Therefore, we need to make sure that that new external environment is reflected in the returns necessary to attract capital to the UK, to be able to deliver that investment plan and ultimately achieve the benefits of economic growth and the green energy transition for the country. ASTI, great; now apply that to the rest of the framework and it will do a great job.

Viscount Thurso: From many of the witnesses we have had and the advice we have been given is that there seems to be across the board a view that ASTI is good news, but it needs to be either expanded or very much what you have just said. One point in particular: do you think that the uncertainty mechanisms within Ofgem’s price controls offer sufficient flexibility to adapt to changes in supply and demand within the price control periods? Do the processes work smoothly and does Ofgem have sufficient resource to make those decisions?

Rob Salter-Church: In principle, the uncertainty mechanisms work well. They are hugely important. In our price control plan that we have set out will deliver the investments between 2026 and 2031, about two-thirds of that needs to flow through uncertainty mechanisms. It is important that they work and that they work well, and Ofgem recognises that in the framework. The devil will be in the detail—in the design of those frameworks—and we are working closely with Ofgem on the design of those mechanisms.

We are confident that it understands the importance of them and what they need to deliver. The thing that we think is important as well, and I have mentioned it already, is about having access to sufficient capability and capacity and resources from Ofgem to be able to manage that throughput of approvals through uncertainty mechanisms. We have been having discussions with them about how, as part of a collective national endeavour to deliver the networks needed for the energy transition, we think about managing that portfolio of projects through the approvals process so it is as streamlined as possible and making sure they have the capacity to be able to make timely decisions.

Viscount Thurso: Do you have anything to add?

Jessica Hardwick: I would echo what Rob said. Again, we are supportive of the ASTI framework. From our perspective, it is that approval of need on a portfolio basis that enabled us to then go out and secure the supply chain for ASTI, which we have done. We have the supply chain secured for all our projects required for 2030. Then we were

---

operated by Ofgem. These price controls are called ‘RIIO’ (Revenue = Incentives + Innovation + Outputs) and apply over a particular period of time, currently five years. The controls cap the maximum revenue that can be collected from customers, with incentives based on a number of areas of performance.

able to go out and start that early engagement with communities. We are definitely keen for the principles to be taken forward.

Q35 **Viscount Thurso:** Coming on to another question, perhaps I can start with you again, Jessica, on this. Are the transmission networks incentivised to ensure timely connections for connection customers or for the volume of generation they have connected to their networks? Would you object to such incentives being introduced through Ofgem's price controls?

Jessica Hardwick: I suppose we are indirectly incentivised to deliver timely connections through the delivery of the ASTI programme in ensuring that the network is there in time to facilitate the connection of those generating customers. We are also incentivised through a quality of connections incentive, which reflects the customer journey and the satisfaction of the customer on that journey, and we would expect that any delays would be reflected in the score that they give us.

Ultimately, we cannot force developers to connect to the network. We just are responsible for making sure that the network is there on time. We do not think that it would be suitable to have a regulatory incentive on that basis.

Rob Salter-Church: We might be in a slightly different position in National Grid. We are supportive of additional financial incentives as part of the regulatory framework for the next price control, and in particular of incentive around transmission owners creating capacity for customers to connect. Obviously, as Jess says, we cannot control whether a customer does connect or not, but we can control and we believe we should be incentivised on providing additional capacity into the system, and the quicker we can provide that capacity the more capacity we can provide above a baseline. We think that it is in everyone's interests—consumers' interests—to incentivise us to do that. Ofgem is currently consulting on some proposals for the next price control framework on a capacity creation incentive, which we are strongly supportive of and working with it on the design.

There are other areas of the framework where we think there is an important role for financial incentives as part of the next price control framework. It is not just about connections; it is about encouraging transmission operators to go above and beyond to control constraint costs. Those are the costs that generators get paid when they cannot flow their electricity on to the system.

There is real value on the table there for consumers; that is multiple billions of pounds every year that get paid in constraint costs. We think that an expansion of the existing incentive on transmission operators to take on more risk, to try innovative ways to tackle those, and then take a small share of the additional value we have created for consumers is an important part of the future framework. There may be others around stretching ourselves to deliver even further.

To bring it back to your question, I think that there is more that can be done to incentivise us on connections, but ultimately we would encourage Ofgem to think about the importance and consumer benefit of having a regulatory framework that has incentives, because that is how you can shift the dial on the value that we can create for consumers.

Viscount Thurso: Just to be clear, you are in favour of price control incentives to be part of the mix, to incentivise people to use the capacity to the maximum. Is there anything you would like to add, Jessica?

Jessica Hardwick: No.

The Chair: Can I just clarify? In a previous session it was suggested to us that this is too black and white, but rather than building more network there is capacity to use the existing network more efficiently, and that is not getting sufficient attention. Do you accept that or reject it?

Rob Salter-Church: I would say it is an "and". We need to think about how we use the existing network more effectively and how we think about how we increase the network going forward.

If I think about that first bit about how we use the network more effectively, we are working with a number of innovative companies to work out how we can increase the amount of electricity we flow over our network. To give an example, we are using a technology called dynamic line rating, where there is a limit to how much electricity can flow down a cable. It gets too hot and it will start to sag. You can have a rule-based system that says you can never put more than X through. Dynamic line rating has sensor technologies that looks at the state of that cable on any given day, given the environmental surroundings, and work out if you can get more electricity through the system.

We have been adopting that technology, and all transmission owners in the first two years of the price control framework we are in at the moment have saved consumers £266 million through the adoption of those technologies and other ways to get more capacity out of the system. I would agree there is more that should be done and would like to see us continue to be incentivised to take more risk and come up with ways of stretching ourselves to be able to do it.

We do need, however, given the scale of the transition—this is a once-in-a-generation shift in our energy—to have new investments in transmission. For example, at National Grid, people talk a lot about generation but actually it is in terms of demand. Through our plan for the next price control period, we will be connecting 19 GVA (Gigavolt-Amps), it is called, worth-of-demand customers. That is more than double the power demand in London. Even with these initiatives to improve how much we can use the existing system, because of electrification of transport and heat and because of new sectors like AI that are increasingly data hungry and electricity hungry, we do need to expand our electricity system. There is real economic growth that can come as a result of that. We are expecting to support 55,000 new jobs by 2030 across the country as a result of the electrification of industries that we can support, so it is an "and", effectively.

The Chair: I will ask Jessica in a moment, but you mentioned £266 million benefit to consumers. Is that coming off their bills? How are they benefiting from it?

Rob Salter-Church: It would come off their bills. It will flow through the network charges and is part of the bill.

The Chair: Did you want to add anything?

Jessica Hardwick: Just to say that dynamic line rating is something that we have also been looking at and will be implementing on our network. We are always looking at how we can maximise use of the existing network. Ultimately, given the amount of clean power that we need to connect in, we will fundamentally need to build more grid.

The Chair: So you would agree it is an "and" rather than central?

Jessica Hardwick: Yes.

Q36 **Viscount Trenchard:** We have talked a lot about connecting sources of supply to the network, but do you think that there is sufficient focus on connecting sources of demand such as businesses to energy networks, as well as connecting new sources of energy supply? How can the needs of potential consumers of energy be balanced with the need to ensure adequate supply?

Jessica Hardwick: As I understand it, the proposals for connections reform place no cap on the amount of demand that can connect to the network, but under the current licence conditions that we have we are not able to favour any connecting party over another. Ultimately, those licence conditions would need to change and there would need to be strategic direction from the Government, I think via the Strategic Spatial Energy Plan, if we were to prioritise the connection of demand. However, the connections reform process means that there will not be a limit on how much demand can connect to the network.

Rob Salter-Church: The only thing I would add is the need for Government to take a holistic approach to thinking about how they support strategic demand and economic growth in the country. We work on what the Government said around an AI action plan. Those are data-hungry industries. What needs to be done is then integrating that view of an industrial strategy into an energy strategy, into the strategic spatial energy plan, as Jess has said, and then hardwire that into the planning system so that you are removing some of the regulatory barriers to be able to support economic growth, whether that is new connections for data centres or new connections to support decarbonisation of traditional industries.

We have an investment in front of Ofgem at the moment to support an electric arc furnace in south Wales to support economic growth in that area. For me, it is about how you align all those different levers through the various different plans so that everything lines up, so that it enables the investors to be able to have clear sight and to be able to go ahead and invest.

Q37 **Viscount Chandos:** What is your experience of co-operating with distribution network operators, for instance, in relation to connecting large sources of generation at the distribution level? In both your cases, I think that your groups include distribution networks for which you are not responsible or speaking. I would be interested here in how you co-operate with your sister distribution companies but also third-party ones.

Rob Salter-Church: Co-operation works well across the sector. I do appreciate, though, that it can be difficult for developers that are connecting into the system energies—not their bread and butter—to navigate the sometimes complex arrangements between distribution network owners, transmission owners, and NESO. Sometimes regulatory contractual issues do limit the amount of information that we can share between ourselves. That can make things sometimes a bit difficult for developers.

What we have done in National Grid is to restructure our customer connections directorate—that is the part of our business that focuses on bringing new customers into the system—to create a specific distribution network operator team and function in order to focus on improving the experience for embedded generators, those parties that are trying to connect into the distribution system.

We think that it works well. There are some important actions where, through collaboration between the transmission owners and the distribution owners, we have been able to—we often say—take the transmission "out of the way" for parties that are trying to connect at local level. We have been working on what is called the technical limits programme, which looks at how, through more closely understanding the different networks, we can allow distribution network owners additional capacity at certain parts in the network.

We did that over last year. It enabled 350 developers to accelerate their connections by an average of six years, as things that we have been doing to promote a broader range of connection products to developers, so allowing distribution owners to offer non-firm connections that are available more quickly, giving customers choice. From our perspective, it works well. We need to keep this mindset of collective endeavour of all parties working together to make the experience as clear-cut as it can be for developers.

Viscount Chandos: There would be no difference between a sister distribution company?

Rob Salter-Church: Sorry, I did not answer the last part of your question. Indeed, we would treat all the distribution owners completely the same.

Jessica Hardwick: From our perspective, in the north of Scotland we have a very positive collaborative relationship with our counterparts in SSEN Distribution and, where we can, we will try to work together very closely in making sure that connecting customers have a positive experience.

Viscount Chandos: Do you think there is sufficient strategic planning for distribution networks? What will the Regional Energy Strategic Plan need to deliver in order to be a success and how do you expect these plans to relate to national energy planning through the Strategic Spatial Energy Plan and the Centralised Strategic Network Plan?

Rob Salter-Church: That is a very good question. There are lots of plans. All the plans need to align. Broadly speaking, they will all come under the auspices of NESO to lead the development of those plans, which will help with that coherence. I would refer back to what I said before about the strategic plan at the more national level—that the important thing is that there is engagement of all the relevant networks in producing that plan, as well as local communities in understanding what the energy transition means for each individual region. It will be different, getting those different perspectives into it, and then how you hardwire those plans into the rest of the regulatory and planning frameworks so that they have the desired effect of being able to set strategic direction and streamline.

Jessica Hardwick: I would agree with Rob. We are very supportive of the Regional Energy Strategic Plan and keen to see that co-ordination fleshed out between the RESP, the Centralised Strategic Network Plan and this Strategic Spatial Energy Plan. The only additional point I would make could be just in respect of what I mentioned previously around the transmission network in Scotland going down to 132 kilovolts and, from our perspective, having clarity as to what our role is within the development of the RESPs and the co-ordination across all these strategic plans.

Q38 **Lord Gilbert of Panteg:** Rob, you said there are lots of plans, but there are frameworks, incentives, mechanisms, codes, licence conditions and quite a lot of stuff here, are there not? What role do the Government have to try to cut through this? Clean energy 2030, I think you will agree, is challenging. It is deliverable, but it is very challenging. It seems to me a little bit like the Covid vaccine. They are only going to do it if you take that totally single-minded taskforce approach to delivering. Is that how the Government look to you? Does the Government look in the Covid Vaccine Taskforce mode? Are they doing everything to give you all the incentives you need and to remove all the barriers to you delivering your bit of clean energy 2030?

Rob Salter-Church: From our perspective, the Government have started well and we welcome the mission focus. As you have intimated, we are very supportive of that mission focus with the creation of Mission Control, with all the relevant parties around the table to focus on this collective national endeavour to be able to deliver. We are actively participating and engaging with Government. We would encourage Government to keep this strong focus on the mission and to have a very transparent arrangement with all the different parties to identify what the potential issues and barriers are that need to be tackled, and to have that adult, grown-up approach of bringing issues to the fore and working out how we can fix and overcome them. I feel confident that NESO, industry and Government are focused on that collective endeavour.

Lord Gilbert of Panteg: I will come to you in a moment, Jessica. Just to push on that a bit, my understanding of the way the Covid taskforce worked is they were a very small team at the centre, and if you were part of the programme and you had an obstacle that needed to be removed or an incentive put in place, you phoned that person and they did it. Does it feel like that?

Rob Salter-Church: It certainly feels that there is an increased focus on what needs to be done. The Clean Power 2030 plan is clearly an acceleration of everybody's ambitions. We are confident that things are moving in the right direction. We will continue to engage and, just like I am doing today, identify the things that are on our mind that we think need to be fixed, whether that is by the regulator or by Government. What I can say is that the engagements that we have with these organisations continue to be very positive.

Lord Gilbert of Panteg: Jessica, what more do you think the UK and Scottish Governments can do, and does it look to you like the emergency process that delivering 2030 to me seems necessary?

Jessica Hardwick: I would agree with what Rob says and slightly build on that. We have seen some positive actions come out of the Government in terms of the various governance forums and groups that they have set up to oversee the delivery and acceleration of transmission infrastructure and the implementation of the recommendations from the networks commissioner. That is all great. I think that we need to now see them deliver on some of those challenging reforms that we pointed to previously around planning and consenting and do what they can to remove any uncertainty that is there at the moment that is preventing us getting towards clean power by 2030. Things like ongoing discussion around zonal pricing are not necessarily helpful to getting to Clean Power 2030. We need to know what we are doing and where we are going and then we can crack on.

Lord Gilbert of Panteg: Are you able to go to them and say, "Look, unless you deliver on some of these priorities for us there will be no clean energy 2030"? Do you say that to them?

Jessica Hardwick: I feel comfortable that we have those very open, honest conversations with the Government and the regulator.

Rob Salter-Church: That would be the same for us. They welcome us bringing forward those issues and challenges for them to think about. We may not always agree on some of the answers, but they definitely are listening. They recognise that to deliver this will take a collective national endeavour, and everybody needs to play their part. From our perspective as transmission owners, part of playing our part is to be transparent around what we need from others to be able to enable us to deliver our plans and support the benefits for the country.

Lord Gilbert of Panteg: What changes would you like to see as a result of the Government's review of Ofgem?

Rob Salter-Church: We are currently developing our detailed position on the review, and we are engaging with Ofgem as we do that. We are very supportive of the focus of the review on ensuring that the regulatory regimes create the right conditions for growth, investment and innovation. I have talked about us trying to invest £30 billion in the next five years. That is dependent on Ofgem's regulatory frameworks.

We are keen to ensure that Ofgem is focused on its role in supporting economic growth. I have also mentioned the other specific, that we think it is important to ensure that the regulator has the right capacity in its resources to be able to deliver its role and to deliver timely decisions.

Jessica Hardwick: I would agree with what Rob has said. We are also engaging with the review and currently building our more detailed position. I think that a clear way for the regulator to demonstrate that it is delivering growth is to make sure that we have network investments that are underpinned by a financial framework that is financeable and investable, and an attractive proposition to those investors.

Building out the grid to 2030 and then beyond, there is a significant opportunity to unlock wider inward investment opportunities across the UK. We have seen that already through the investment that Sumitomo has made up at the Port of Nigg, which has been underpinned by the second Shetland link that we are building to connect the island to the mainland. We are starting to see these opportunities for growth come through.

Q39 **The Chair:** One of the common themes from your evidence and some of the previous evidence is you are being urged, "Get on with it, crack on, we do not want slippage on the 2030, and make it happen". Equally, you have outlined quite a lot of pretty treacly processes, some of which may be getting even more so, and that has to be a worry. There is also the trade-offs between the cost, the environment, the different stakeholders, long-term, short-term, the plans and the different roles. I wanted to ask you about the organogram of all this. Are you satisfied that there is enough clarity of roles for all these different bodies—for the Government, for NESO, for Ofgem and the code bodies? Jessica, you start us off this time.

Jessica Hardwick: I would just say that we appreciate that the NESO is a relatively new body and we are supportive of letting those structures bed in while we are also seeing connections reform and the Strategic Spatial Energy Plan being delivered at pace. There definitely needs to be a bit of time for that to work its way through it and bed in. I do not know, Rob, if you have anything to add.

Rob Salter-Church: From National Grid's perspective, more clarity is needed. The NESO is a new part of the institutional framework and we think that it is important to get real clarity on how NESO, Government and Ofgem will work together. We welcome the introduction of a strategic policy statement and, in particular, we welcome the new Government's commitment to review the existing statement to try to give it additional clarity. I think that the previous version was a bit of a missed opportunity to really enable Government to set a clear direction to the regulator and what they need to deliver and around their priorities.

In other sectors we have seen strategic policy statements—for example, in telecoms—be very clear on the commitment to growth and the need for regulators to focus on growth. In the context of the role of broadband and attracting investment for full fibre broadband, that very effectively enabled Openreach to bring forward investments in that regard.

That is the clarity that I think we are looking for through the updated strategic policy statement as well as getting increased clarity between the roles of NESO, Government and Ofgem. As Jess said, NESO is a new body and we need to make sure that respective responsibilities are clear and that the different bodies do not duplicate the work of one another because that will only delay the process of enabling network investments to come forward.

The Chair: Can we touch on the jungly, complex ecosystem of the energy codes, which has been a fascinating learning curve, I have to say, about the diversity within that ecosystem and who is responsible for what. Has the reform really happened? Has it been sufficient? Is it flexible enough to deal with what will be, I hope, a fast-changing system? Will Ofgem need to take a firmer line on controlling this? What are your thoughts?

Rob Salter-Church: From our perspective, the code reforms are the right ones. They have the potential if implemented to have a big impact. There are three important things that code reform should deliver: first, a greater ability to prioritise proposals that come forward from the code administrators, from the code managers, rather than having to assess every single modification that comes forward. Equally, they should think about priorities. This is where the strategic policy statement becomes important, because that is how you give the focus for those bodies to focus on the right code modifications. Second is increased accountability for the code managers through having licences from Ofgem. The proposals to reform and review the codes themselves should help with improving accessibility and understanding in what you have described as a jungle and quite complicated. The final part is again that strategic direction from Ofgem reflecting the Government's responsibilities.

Implementing code reform will be a challenge. It is something that Ofgem needs to ensure it is appropriately resourcing, but industry parties who have the day-to-day expertise and experience of managing these codes also need to lean in and provide their expertise to help these codes to be rewritten and reformed and consolidated in an effective way.

The Chair: Jessica, can we crack the codes?

Jessica Hardwick: The only thing I would add to what Rob said, which I agree with, is that it is important that any changes that come about from code reform enable us as transmission owners to keep the network secure and reliable in line with our existing licence conditions.

The Chair: We are coming to the end now but, whenever giving evidence, people always leave the room thinking, "I wish they had asked us about this". Do you want to take the opportunity to make any last remarks or touch on something you wish we had asked you about?

Jessica Hardwick: I think that you have covered a wide range of ground throughout this session. The main points from our perspective are that we are keen to see reform to planning and consenting. We need to have determinations within 12 months if we are going to deliver against 2030 targets. We are also keen to see that Ofgem puts in place a financeable framework for us as network operators so we can secure the investment needed to be able to deliver against those targets.

Rob Salter-Church: I think that is a very succinct summary. We would agree with all those points as the enablers that we need to see from Ofgem and Government if we are to deliver this collective national endeavour and realise the benefits for consumers and the wider economy. I would agree with everything Jess has said there.

The Chair: Thank you very much. Thank you both for what has been a very interesting and—my Committee will groan if I call it illuminating—helpful session. I have certainly taken away a lot from that, which has been very helpful. I will mention again that you will get a transcript of what you have said. Please do get in touch if you wish to correct anything or if there is anything you want to add. Do not be shy to ping in to us additional information. I think that for the moment we will call the session to a close. Thank you both very much again.