OFGEM

OPEN MEETING SERIES

Network Price Control

National Grid Electricity Transmission

Record of Virtual Meeting

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Transcribed by T A Reed (Wiltshire) Ltd
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ATTENDEES

Martin Cave	Chair, Ofgem
Jonathan Brearley	Chief Executive, Ofgem
Akshay Kaul	Regulatory Director – Networks, Ofgem
Min Zhu	Deputy Director, Ofgem
Myriam Madden	Non-Executive Director, GEMA, Ofgem
Stephen Henderson	Head of Finance Policy, Ofgem
Nicola Shaw CBE	Chair, NGET
Chris Bennett	Director of UK Regulation, NGET
David Wright	Director of Electricity Transmission, NGET
Mark Brackley	Project Director, RIIO-T2, NGET
Darren Pettifer	Head of Regulatory Finance, NGET
Trisha MacAuley	Chair of the User Group
Will Webster	Member of the User Group
Roger Witcomb	Chair of the Challenge Group
Robert Hull	Member of the Challenge Group

THE CHAIR: Good afternoon. My name is Martin Cave. I'm the Chair of Ofgem and I am also chairing this hearing. Thank you for joining us today at the Network Price Control Open Meeting for National Grid Electricity Transmission, delayed from the spring by the impact of COVID-19.

This and similar meetings are the first of their kind for Ofgem and, despite us not being able to be in the same room, I very much encourage you to get involved as it is important that we hear a variety of voices today.

I'm confident this meeting will allow us to have an open and constructive conversation about the consultation responses and key outstanding areas of difference ahead of our final determinations which will be published later this year.

National Grid Electricity Transmission have told us the topic areas they would like to discuss today are reliability and resilience of the network, pace of progress towards net zero and regulatory stability and investor confidence.

The company is first given an opportunity to deliver a 20-minute presentation.

We also welcome today members of the company's User Group and of Ofgem's own Challenge Group. These groups are formed of independent experts convened to review business plans in detail. They will have an opportunity to feed in their views ahead of our opening the floor for questions.

Please ask your questions on the chosen topics by using the Q&A function on the side bar. I'm afraid there may not be time to answer every question, but we will consider them all when drafting the final determination. Members of the senior Ofgem team will also be asking some questions.

We're making a transcript and recording of this event which you will be able to watch again and which will be available on our website once all meetings have taken place.

We start with the knowledge that energy networks in general have delivered a good service but at a high cost to consumers. This is well-documented through our own and independent evidence. We also know that investment in the energy system is going to have to rise as we meet the net zero challenge at lowest cost to consumers while protecting the most vulnerable. Our overall proposals unlock unprecedented funding for projects that cut carbon emissions to create a green, fair and secure energy system for consumers, now and in the future. This will enable our sector to play a key role in the green recovery.

I would now like to hand over to Ofgem's Director of Networks, Akshay Kaul, who will give a brief update and set the scene in terms of where we have reached in the RIIO-2 process with National Grid Electricity Transmission. Akshay.

AKSHAY KAUL: Thank you, Martin, and good afternoon, everybody. A very warm welcome to everyone who is taking part today.

I want to start just by saying a big thank you to colleagues from National Grid Electricity Transmission who are here with us today, the NGET User Group, the RIIO-2 Challenge Group and all the other stakeholders who have assembled virtually this afternoon for being here, but also for the many responses, the many thoughtful and extensive responses that we received through our consultation on draft determinations earlier this summer, which is something that we have been reading with a great deal of interest and reflecting upon over the last few weeks.

Since we received the consultation responses in early September, we have had very constructive engagement through a range of technical bilaterals, through industry working groups and of course asking supplementary questions directly with the company and with the other respondents who got in touch with us.

As you can appreciate, we are still in the process of working up our proposals for final determinations, but I wanted to reflect on the progress that we have made thus far. In particular, I want to mark a note of appreciation for the immense work that has been done over the summer period by National Grid, and their engineering team in particular, to improve the quality of the evidence base which we think has moved us much further along the journey.

I'm going to try and cover a few areas. Totex (or total expenditure) which is the expenditure for running the electricity transmission system where there was a material gap between us and National Grid, if you will recall the draft determinations particularly in the area of asset health. So I'll talk a bit about totex. I'll talk about the associated uncertainty mechanisms which are very, very salient for the electricity transmission sector and particularly for National Grid. I'll mention the progress that we have made on outputs and incentives on the net zero aspects of the settlement, and finally I'll touch briefly on finance and the cost of capital.

Starting with totex, as I mentioned, we have had a number of bilaterals at the working level between the Ofgem teams and National Grid Electricity Transmission to understand better the justification and the evidence for a range of investments that had been proposed by National Grid in their spending plan. In the case of their asset health investment proposals in particular, we have received a very significant amount of justification papers, in fact 118 justification papers, following our draft determinations, and we note and appreciate the significant improvements in the level of the evidence and data that has been provided in a range of these areas, but we also note that justification in some other areas of totex remains weak. We're giving active consideration to all the evidence that has been submitted to us as we develop our final determinations.

We're also giving active consideration to National Grid's challenges to our cost assessment methodology, particularly the cost efficiency and benchmarking methodology as we progress towards final determination.

On the specific point of our proposed funding for projects that span RIIO-1 and RIIO-2, which was again an area of contention following draft determinations, we remain of the view that consumers should not pay twice for the relevant works. However, we are actively considering National Grid's response that part of the unused original funding for these works may have already been returned to consumers as part of its voluntary return of RIIO-T1 allowances in 2017.

Moving then to the subject of uncertainty mechanisms, we acknowledge and agree with the views expressed by National Grid and its stakeholders that the package of uncertainty mechanisms for RIIO-2 needs to strike a balance between protecting consumers from uncertain costs on the one hand and introducing regulatory complexity on the other. We have engaged with National Grid much more closely to understand better their proposals for how to make the uncertainty mechanism process sufficiently responsive to high levels of in-period expenditure that may come through the price control. In particular, we have been exploring with them whether we can make more of the mechanisms automatic rather than administrative, for instance, the mechanism that deals with medium-sized investment projects that are between zero to £100m. If we can make those mechanisms automatic rather than administrative, while maintaining adequate checks to ensure that there aren't potential windfall gains or losses for the company, and I am pleased to report that very good progress has been made in that area, but more work is required on the detail before we can arrive at a firm conclusion for the uncertainty mechanism package for final determinations.

The other aspect of the uncertainty mechanisms for National Grid is the large projects, so those that are beyond £100m, and again we made a substantive proposal in draft determinations for these large onshore projects and the process that we would use to settle the needs case and then the allowances for them. But we have engaged very closely since then with the transmission operators to try and get an industry level agreement at how to streamline those proposals for the large transmission projects so that as far as possible they match the development and investment cycles for the underlying projects themselves. We're going to consider this feedback actively ahead of making a final conclusion in December.

On outputs and incentives, the package of outputs and incentives that we proposed for National Grid in draft determinations reflects both their RIIO-1 performance and the information that was provided in their spending plan in December. Since then we have received additional information and feedback on our proposed incentives package from National Grid, the National Grid User Group and from other stakeholders, including the Challenge Group, and in particular I want to highlight the constructive engagement we've had with the electricity transmission owners and the electricity system operator on a proposed common output delivery incentive that targets reductions in system constraint costs. We're giving active consideration to this for final determinations and to other potential changes to our incentives package, with the overall aim of setting an ambitious challenge for transmission owners while delivering real value for consumers.

Finally, I wanted to just touch on the topic of finance and the cost of capital. We have had very significant engagement with National Grid and other stakeholders on this area. In particular, we've been working closely with National Grid to investigate whether there are ways in which we can improve the cash flow during the price control period so that the time elapsed between approving allowances for a particular project and the revenue and cash becoming available to the company is minimised as much as possible. We're going to try and deal with this issue through a forecasting of the relevant spend during the price control period so that we minimise this elapsed time between approval and revenue injection.

I also wanted to touch on the CMA's provisional determination for PR19 which we received and read with interest a few weeks ago. Even though it's a provisional determination, we think that it is an important contribution to the debate on cost of capital for the water sector, and of course there is the question of how to read that across into the energy sector. We think there are likely to be areas of cross-over between the two sectors which we will consider with some care. Also, other areas, such as the asset betas, the cost of debt and the aiming up arguments that the CMA has used which we think will tend to be more specific to sectoral circumstances and the context of the price controls in question. We would be very interested in stakeholder views on the read-across of the CMA's reasoning to the energy sector and I hope we will be able to discuss a bit of that today.

In summary, the ongoing engagement is key to ensuring that we have the ability to fully understand stakeholder responses and to continue to develop a robust price control which provides sufficient funding for National Grid to continue operating a safe and reliable network, to create value for their consumers and to play a full role in facilitating net zero. We believe that we're making excellent progress towards this objective and our positions for final determinations, and I very much look forward to hearing your reflections in the discussion that follows today.

Thank you. Back to you, Martin.

THE CHAIR: Thank you, Akshay. I now invite the company itself to give its 20-minute presentation.

NICOLA SHAW: Thank you, Martin, and thank you, Akshay. It's great to be here today. It's great to have the opportunity to present and to discuss the RIIO-2 business plan and our response to the draft determinations.

I'm going to present, Nicola Shaw. I'm the Chair of National Grid Electricity Transmission and I'm the Director in the UK for the National Grid. Also presenting with me today are Chris Bennett, who is the Head of UK Regulation, he is the Director, and Darren Pettifer, Head of Regulatory Finance. When we get to questions, we are going to be also joined by David Wright, Director of Electricity Transmission, and Mark Brackley, who is our RIIO-2 Director for Electricity.

We absolutely share Ofgem's goals to deliver the value for money services both existing and future consumers want whilst developing and maintaining a reliable, safe, secure network that's flexible as it supports the transition to a low carbon future. It's really essential, I think, that we work together to achieve those goals.

Overall, we accept absolutely that returns in RIIO-2 must be lower than RIIO-1, and there are lessons to be learned from the framework we had for RIIO-1, particularly I think on improving its robustness. Overall, however, our conclusion was that the aggregate effect of the number of the proposals in the draft determinations just swung the pendulum too far the other way.

I want to acknowledge the efforts made by Ofgem staff in the unprecedented times that we're living in to ensure a meaningful and ongoing dialogue between the companies and the regulator and our stakeholders. This is a very good instance of that. Particularly, since the draft determinations, we've had, as Akshay was saying, a good and I think constructive dialogue on vital issues, in particular of course asset health and net zero. We've listened and we've responded, we've given feedback. We're working actively with Ofgem to give them more information where they have areas of concern.

There are, however, some areas where we also have concerns and still that need work on, I think. The business plan incentives, the clawback of money from T1, the efficiency targets, the allowed cost of equity, all of which Akshay referred to when he was speaking. So, again, I think we're making progress, we understand one another.

We welcome these Open Meetings and the opportunity to discuss with you what we see as the critical themes that we should keep addressing before the final determination. As Martin said, they are the reliability and resilience of our energy sector, the pace of progress towards net zero and the regulatory stability and investor confidence in the sector.

The next 20 minutes, I'll talk a bit about reliability and resilience. Chris will then talk about enabling the net zero transition, and Darren will set out the changes we're proposing to ensure that regulatory stable regime that we have to maintain investor confidence.

We will cover the impact on stakeholders and consumers of the draft determinations and call out some of the progress we think we've been making with Ofgem in the past few weeks. We will also highlight the key concerns that remain and why the remedies that we're proposing serve the interests of our stakeholders and consumers.

That brings me to the first priority theme, delivering the reliability and resilience our stakeholders need. We had extensive engagement with stakeholders to prepare our business plan, over about two and a half years, and this message of resilience and reliability was absolutely clear. It also remained the case when we went back to a representative panel of over 4,000 consumers in August this year to test whether COVID had changed their priorities. 76 per cent of them favoured more investment over cutting spending, and this applied even in low-income categories. So, we think we're right that it's important that our business plan must maintain asset risk at current levels in line with those stakeholders' requirements.

The draft determinations would significantly reduce the reliability and resilience of the UK's electricity supply. It was proposing an 80 per cent cut in allowances for investment in network reliability. That's about a third of the historic investment rate and a cut to £700m. £600m of that would be for a single project in London, so it will leave us with only £100m to invest in the network for the rest of the country.

Furthermore, the draft determination proposed to cut network maintenance allowances by over 70 per cent. All of this, we thought, would increase the risk levels on the network by at least 24 per cent over the next five years, costing consumers more in the long run.

As Akshay said, we have, I think, had good conversations over the last few weeks and we've had conversations that have been lengthy. Ofgem told us they need to understand our plans in very considerable detail and, hence, the reports that he mentioned, the supplementary evidence reports, a 118 of those. Those were on top of the 15,000 pages of evidence that we had submitted alongside our business plan.

We've also worked to differentiate between a minimum level of investment required to avoid short-term reliability consequences and the level of investment required to deliver our stakeholders' priority, maintaining today's low levels of network risk into the medium term.

We very much hope that once the additional information has been analysed, final determinations will include sufficient asset health works to avoid those short-term reliability consequences, including securing the network from cyber and flood threats. We also hope that the additional evidence provided in relation to operational telecommunications will lead to an increase in the level of baseline funding.

However, we also need to achieve our stakeholders' longer term objectives that are underpinned in our original business plan. We believe there's a strong economic case for further investment, maintaining lower levels of network risk over the medium and long-term, and hope that the final determinations will reflect that as well.

I'm now going to hand over to Chris to take you through the second priority theme.

CHRIS BENNETT: Thank you, Nicola. Our second priority theme is around net zero. I think we all recognise the importance of establishing the right framework in RIIO-2 so that we can make considerable progress to net zero during this crucial 2021 to 2026 period. We are fully committed to working with Ofgem so that the final determination includes solutions to enable progress at pace and minimum cost to consumers. We have been constructively discussing our primary concerns and the proposed remedies with the Ofgem team, which I'll briefly summarise.

Our first concern is that the proposals in the draft determinations do not provide timely funding to deliver net zero at pace. Projects that have already been triggered by the ESO's network options assessment process have been moved into uncertainty mechanisms with funding windows either in 2024 or at the end of the price control.

Since the publication of draft determinations, we've had positive conversations with Ofgem about addressing this issue by increasing baseline funding and adding further output commitments. If these measures are adopted, it will enable us to proceed with these projects at pace.

As Akshay mentioned, for non-baseline medium-sized projects, we've also been discussing moving away from the lagging funding mechanisms described in draft determinations to upfront triggers for new investment. We believe this would benefit consumers in several ways. It would provide funding certainty and avoid delays to project delivery whilst at the same time protecting consumers through clearly linking allowances and output commitments. Prices would also be lower because companies would face strong incentives through reduced costs and drive for greater efficiencies.

Our second concern relates specifically to the framework for large projects. These are the projects above £100m. We believe the process described in draft determinations will create delays of between 12 to 24 months in delivery. It also suffers from a fundamental misalignment between the regulatory process and the planning process whereby the regulatory needs case is decided upon after the Secretary of State has granted planning consent. On this topic we're encouraged that Ofgem is looking to work with network companies to address these process issues and hope significant progress can be made in the coming weeks.

We're also keen to work with Ofgem on providing more clarity on who will be asked to deliver these major infrastructure projects in RIIO-2 and under what regulatory model. We don't currently know whether we should resource up to deliver these projects or assume that a third party will deliver them.

We also face considerable investor uncertainty, as if we are asked to deliver these large complex projects, we don't know what returns to expect under the competition proxy model. Clarity on these aspects of the framework will be critical to delivering net zero at pace and at lowest cost to consumers.

Third, the uncertainty mechanisms proposed in the draft determinations for connecting new generation and demand systematically underfund the connections our customers require. Unchanged, these would create perverse incentives to avoid connecting new customers. Again, we are encouraged by our recent conversations with Ofgem where we believe this issue has been recognised and we hope to see new proposals which better reflect the expected cost to connect new customers.

Finally, we had concerns that draft determinations did not assess financeability against credible net zero scenarios. In recent bilateral conversations, we believe Ofgem has accepted the need to revise its financeability assessment to take account of plausible, forward-looking net zero investment. We have provided Ofgem evidence to underpin our view of plausible future total spend and the potential levers that could be pulled to ensure we meet key financial metrics.

I will now hand over to Darren to talk you through our final priority theme.

DARREN PETTIFER: Thanks, Chris. Our final priority is that of ensuring regulatory stability and investor confidence. We covered elements of this theme earlier in our session on National Grid Gas and our points largely stand here, but they do bear repeating given the different audience this afternoon and their importance.

As mentioned earlier, we acknowledge that changes are required to the RIIO framework in order to maintain stakeholder legitimacy. We agree that returns need to be lower in RIIO-2 than they were in RIIO-1, and we have supported the introduction of returned adjustment mechanisms in order to reduce windfall gains and losses. However, we don't think the draft determinations strike the right balance between improved legitimacy and regulatory stability. The determinations contain several proposals that will individually and collectively erode regulatory stability and in turn make the sector substantially less attractive to investors. The implication would be increased cost to consumers. This is because networks are long-term businesses with an ongoing need to attract investment into the sector. Any decision that reduces regulatory stability in order to try and reduce short-term consumer bills will actually cost consumers more in the long run.

Our principal areas of concern in this area fall into two sections: assessing of allowed equity return and the combined impact on the financial and regulatory frameworks.

Let me first start with the setting of allowed equity returns. At 3.7 per cent the allowed equity return in the draft determination is below those of comparable international energy benchmarks. At a time when the UK is seeking to deliver net zero targets by 2050 and we're trying to do our part for green recovery, we don't think such low returns are appropriate. In its recent provisional findings for the water sector, the Competition and Market Authority has reached a similar conclusion, setting returns of 5.08 per cent. We have no doubt that Ofgem will consider the CMA's provisional findings really carefully, and further upward adjustment from this figure is required for a transmission company to match the risk and return.

We have provided additional detailed evidence to Ofgem on the higher risk of energy, explaining that National Grid plc's beta has been 5 to 12 per cent higher than those of the water companies for the whole of the last ten years under every averaging and estimating technique. That is before we increased that beta because of the lower risk US business we own.

We have also explained to Ofgem that the outperformance wedge included in the draft determinations should be removed. If the price control is correctly calibrated, then conceptually it is not needed. Practically, it is inconsistent with the risks and opportunities of the draft determinations.

Now I will turn to the combined impact of the financial and regulatory frameworks. When the draft determination proposals are layered together, the package as a whole shows not just inadequate base return but also real challenges in delivering those returns. This can be illustrated in two ways, both of which are shown by a graph we will get on the screen in a few minutes. Faye, could you put up the graph, please?

(Technical issue – music played over Mr Pettifer)

I will talk you through this slide and walk you through the individual components and the cumulative impact. The blocks of the graph break down what would be a 40 per cent efficiency saving required to achieve expectant return if the draft determinations remain unchanged. The left-hand side column shows the draft determination expected return of 2.92 per cent for the performance mentioned. The light blue step shows that nearly £200m worth of savings are required to offset the impact of the performance I mentioned earlier. The costs, the purple section shows savings required to offset the *(inaudible – music playing)* penalty imposed on us. As well as being set using what we believe to be a subjective methodology, this penalty is the largest of 85 penalties Ofgem has levied across any energy company in the last ten years. We do not think this is proportionate.

Going back to the graph, the green section shows the £200m worth of efficiency we embedded into our business plan back in December. This is future efficiency and included productivity improvements in more than three times the general economy and is on top of the efficiencies from eight years of RIIO-1 performance which are already factored into our RIIO-2 unit costs. On top of this figure, the pink section shows that Ofgem have added in £1b of efficiency cuts in draft determinations. We have serious concerns with the methodologies underpinning these efficiencies which actually seem to be the result of methodology weaknesses and errors, data handling issues and inconsistent with comparisons. For example, elements of our substation work has been deemed inefficient because they're being compared to projects with a much narrower scope rather than like-for-like benchmarks. We have discussed our concerns with Ofgem and believe we've provided a clear basis for this figure to substantially reduce in final determinations.

Finally on the graph, clawback of RIIO-1 allowances is shown in orange. We're concerned about this adjustment itself. No mechanism exists in the RIIO-1 framework to make this change and Ofgem made an explicit commitment not to adjust allowances at the outset of RIIO-1. But more, to go against these commitments in this area would create broader concerns about the service of any elements for the RIIO framework. The adjustment needs to be removed in final determinations.

We do not consider a cumulative 40 per cent challenge to be a credible proposition. This can also be illustrated by the equity return which will result if we did not deliver any savings. The right-hand side column shows zero savings would equate to an equity return of just 1.3 per cent. This is some 260 basis points below the expected return and only a quarter of the CMA's provisional findings in relation to the base return in the water sector.

Faye, can you put the slide down, please? With minimal upside potential from a negligible incentives package with six times more downside than upside, and ex post adjustments which minimise totex performance, the framework offers little opportunity to close this substantial gap. It needs to be adjusted in the final determinations to improve investor confidence and ensure incentivise to innovate and deliver consumer value, not forced to be risk averse and let future bills rise.

I will now hand back to Nicola.

NICOLA SHAW: Thank you, Darren. Thank you, everyone, for listening. We've laid out our concerns about the draft determinations and as Akshay said, we recognise the significant conversations that have been happening since then, and I'm sure that we all have a shared view that protecting the reliability of the network is important, so I'm hopeful that we will make serious progress by the time we get to the final determinations. It is important because I think it will help with the base level that we require and then enable also the pace to deliver net zero, and I'm sure we'll get to a place where we are providing the right funding regime.

We've sought to demonstrate how we think this is possible with some small changes, some specific remedies, and I'm looking forward to a further conversation with Ofgem about that and with you today. So, looking forward to further discussions as we go forward. Thank you.

THE CHAIR: Many thanks to Nicola and her colleagues for that presentation. The next presentation is by the User Group of the company, and they will present their independent view of the situation.

WILL WEBSTER: I think we're just waiting for Trisha to appear, but in the meantime I'll just introduce myself and my particular role.

My name is Will Webster. I work for Oil and Gas UK. I'm a member of the User Group both for the electricity and the gas transmission systems. I have been in the electricity and gas sector for about 20 years, including jobs at RWE, with Oil and Gas UK and at the European Commission.

While we wait for Trish to join, I think it would be useful if I just touched on the areas that I particularly looked at, which are namely the reliability and asset health investment.

I'll just pause there in case anyone wants to make a comment about any technical issue? If not, I'll carry on. I think that should be Trish. I'll just pause in that case and allow Trish to introduce herself as Chair.

TRISH MacAULEY: Good afternoon, everyone. Apologies, I had a slight technical hitch, possibly at my end.

My name is Trisha Macaulay and I am the Chair of the NGET Independent User Group. Could you put up the slides, please, Faye? Thank you. I'm just going to start with a quick introduction for the benefit of stakeholders on who we are. Our members are drawn from users of the electricity transmission system and future users of the system. They are a constituency rather than a company, but they are drawn from organisations like Vattenfall, Major Energy Users Council, Independent Consumer Advocate, UK Power Networks, Oil and Gas UK, Energy Innovation Centre, Green Alliance, Leeds City Council.

Our role was to challenge National Grid Electricity Transmission to show that it has effectively listened to its stakeholders and that it has woven stakeholder priorities into the fabric of that business plan, and after that we carried on with scrutiny and challenge on that business plan before it was submitted through the stakeholder lens.

Financeability was not within our remit and neither was our role to duplicate Ofgem, so we are not experts in engineering cost assessments or justifications; that was over to Ofgem.

We worked with National Grid over an 18-month period. We had 15 full day meetings with them and very, very many bilaterals and deep dives to get to know the business plan. We were exposed to NGET's thinking at a very, very early stage, and we saw successive iterations of the business plan and laid out 165 formal challenges to that plan.

When we put our detailed report in the plan, we concluded that the business plan was stakeholder-led and that the extent and the quality of the justification was generally good.

As we go through this process, our focus is firmly on the implications of the draft determination and the NGET business plan and stakeholders. I know stakeholders want a safe reliable network that pro-actively facilitates net zero at lowest cost to consumers.

We're currently working with NGET on an enduring role for our group. NGET informed us well over a year ago, probably 18 months ago, that they saw the benefits of this group. So we are working on the governance arrangements to get the right structures in place to hold them to account in RIIO-2 as we work towards RIIO-3 and we are working with Ofgem on that.

Will will probably cover a bit of what he was about to say when I couldn't connect, but I'm going to hand over to Will to talk about the theme of resilience and reliability of the network. Thanks, Will.

WILL WEBSTER: Thanks, Trisha. As Trisha explained, our job as we saw it was to challenge the process and assumptions used, without necessarily getting into all of the detailed cost assessment or cost efficiency aspects. The process NGET followed in putting together the totex for asset health reliability is similar to the gas network, so it was an approach that started with stakeholders' views about what they wanted in terms of the level of reliability and the overall level of risk on the system. It followed through into the risk assessment model, the NARMs model that was being used, and then that was used to develop a quantity of interventions, so at aggregate level how many interventions there would need to be for different asset classes.

That assessment was more aggregated than we saw on the gas side and that can be explained to some degree in the sense that the network is a lot more granular than the gas network. For example, there are compressors on the gas network at particular locations you can name, whereas a lot of the asset classes for electricity, there are many, many more examples and they're everywhere.

That was the approach taken as it was explained to us and we understood it, so we saw that as where our job was. I would say the draft determinations follow that to some extent, although I think it's a lot more bottom up, and that's the essence of the discussions that are now being had between Ofgem and NGET on the asset spending programme.

I don't want to dwell too much on the difference there as I think it's being dealt with and you've already heard from Nicola and Akshay about how that's progressing. I think all we would say is that the issue that has emerged is that there is now a disconnect there between what stakeholders said they wanted at the start in terms of a reliable network, and that's a disconnect that needs to be addressed for this to be a good baseline for the outputs in T2. So as we understand it, there's a lot of work under way to examine the match-up, I suppose, between the aggregate assessment and the asset-specific discussions and lots of documents and so on. I think that's probably enough said on that.

I think in terms of just going back to why do stakeholders want reliability, there's a lot at stake in terms of getting it wrong. I think even for the electricity network, probably even more so than the gas network, the impact of asset failures and difficulties are more immediate, they have an immediate impact. It's not only about the constraints that causes and the risk it brings into the transactions, but it can have actual physical outcomes in terms of customers losing the service entirely. So, it is probably even more important to get this right for both electricity and gas sectors. I think the other issue, we dealt a bit with what is the capability of the system required in the next 10, 20, 30 years for gas; I don't think that's a lot less of an issue for electricity in that electricity demand is only going to grow as we take some sectors into basically being electrified, like transport and some of the heat requirements of the country.

That, in a nutshell, is how we dealt with the reliability part of the business plan and what we see coming out of the DD. Our request is for Ofgem and NGET to continue to work on bridging the gap, I would say.

THE CHAIR: *(Pause)* Is that completed?

TRISH MacAULEY: Yes. I'm not sure what happened there.

THE CHAIR: Please carry on, please continue.

TRISH MacAULEY: Okay, I was talking about net zero, Martin. In the report and the business plan we said that the proposals for anticipated investment and the suite of uncertainty mechanisms were positive, but we also said that NGET had not met yet stakeholders' expectations on leadership at pace.

So, we very much welcome Ofgem's intent regarding adaptive regulation. It's very uncertain and muddled out there so we absolutely support that, but from a stakeholder perspective we have got concerns on the delivery of the intent; the increasing complexity of the package we think will require cultural and organisational change in both NGET and Ofgem. There's a concern that that uncertainty may create inertia and cause innovation to stagnate at a time when NGET is expected by stakeholders to provide that leadership and ambition.

Some specific stakeholder concerns about some things, for example, are the implications of the proposed framework on the programme for offshore wind integration or an increasing reliance on real commerce for connections, so there are some stakeholder concerns in a lot of these areas.

We think a net zero reopener will be sensible, but if it is triggered only by Ofgem we are concerned about the risks to stakeholder expectations of that leadership at pace by NGET and effective proactive and innovative co-system collaboration.

I'm going to end now. Just to say again, as Will has said, we understand and we have been kept informed about the constructive progress that's been made and in the interests of stakeholders we want to see that continue as well.

Thank you. Back over to you, Martin. Thanks, Will.

THE CHAIR: Many thanks to Trish and Will for that very lucid explanation of the User Group's views.

Can I just remind you in passing that there will be an opportunity for questions starting in about ten minutes and you have a chance, if you wish, to use the Q&A function on the side bar to record the questions that you would like the company to answer.

First of all, we have the view of Ofgem's Challenge Group, and I pass over to Roger Witcomb and Bob.

ROGER WITCOMB: Thank you, Martin. Good afternoon, everybody. As Martin said, I'm Roger Witcomb, I am Chair of the RIIO-2 Challenge Group. I have with me Bob Hull, who is one of the many key members of that group but happens to be the one who's picked the short straw for this afternoon, who, as a lot of you will know, is very experienced in this area, both as regulator and regulated.

I want to concentrate on the two big issues around all these plans, i.e. totex and finance, but I'm just going to start by saying a couple of things first about stakeholder engagement. We think that NGET, and indeed the User Group, did a really good job here. It's not obvious from the draft determination how their views have been taken into account by Ofgem. We would urge Ofgem to be more upfront about how they have taken stakeholder views into account in the final determination. We think that's important as a way of encouraging the stakeholder engagement activity.

Related to that, we are hoping that this will turn out to be quite a challenging determination for NGET. In those circumstances, there is always a temptation to play down those incentives which are purely reputational, and that's really around the areas of stakeholder engagement and environmental performance. We would like Ofgem to look again at some of those incentives to see whether they can be sharpened up a bit.

Moving on then to the bigger questions, Trish said that they supported the move towards more adaptive regulation, that is to say fairly low baseline expenditure backed up by subsequent uncertainty mechanisms. We would absolutely go along with that, for a couple of reasons. The obvious one is that the world going forward is very, very uncertain. You couldn't put together a plan that you could then hand out a revenue stream to grid and say go ahead and get on with it. But the other one is that – and I guess we will come back to this now – our work is based entirely on what we knew at the beginning of December last year. We haven't been able to take account of anything which happened after then. The intention of this planning process was that everything that needed to be known about the planning process would be there in December. It wasn't. The plans were not complete; either they were incomplete or what was in there was not, in our view, well enough justified to be intelligently challenged, and that is reflected in a number of cases where all we have been able to say is we urge Ofgem to have a really good look at this. Bob will come back to some of those things in a minute. It's been quite frustrating from that point of view and we would hope that we could in future, it won't be me but in future challenge groups we can make certain that groups do actually have access to all the information they need to make an effective challenge. I won't say anymore about that.

I will move on to totex and pass the microphone over to Bob. Bob, over to you.

ROBERT HULL: Thank you, Roger. Just to reinforce Roger's point, we as a group very much agree that given the uncertainty, the minimum necessary expenditure should be set, reflecting the pressure on consumers at the moment. The NGET plan, I think we felt, despite the 15,000 pages, the justifications that were provided for the totex were quite weak and we had a number of concerns.

We note that NGET is under-spending its totex by about 20 per cent during RIIO-1 and we have concerns that investment has been deferred, and very much agree with the Ofgem position that customers shouldn't have to pay twice for this expenditure.

We also note that the National Grid's bid for non-load-related expenditure went up by about 40 per cent above the RIIO-1 run rates that they'd been experiencing.

As far as the asset health is concerned, again, we note the work that has been done in the draft determination where there are concerns about the quality of the NARMs data that has been submitted and what signals that is sending about potential risk, both during the past period and the future period. So we would urge that issue to be resolved by final determinations.

I think, overall, we have great concerns about the justifications in the plan, but welcome that additional evidence is being provided and clearly a lot of work is going on to resolve these issues, which is welcome.

In that context, I think having a minimum baseline with uncertainty mechanisms and indeed the greater use of competition should help to protect consumers during the period.

One final point is that we note what is happening on uncertainty mechanisms, trying to make them automatic. There is obviously a risk of making them generous, overly generous, as a result as the experience showed in RIIO-1, so we would urge that to be carefully considered as part of this process as well.

ROGER WITCOMB: Thanks very much, Bob.

Moving swiftly on to matters financial, I'm going to start with the outperformance wedge, and I will be honest, when I first saw that I thought it was an abomination. It's completely inconsistent. Why are you trying to account for outperformance on the business plan by reducing the rate of return? Why don't you just go straight for the outperformance? The truth of the matter is of course that the asymmetry of information between regulated and regulator is such that there has been a consistent outperformance on expenditure right the way across the piece. Now, I'm old enough, easily old enough, to have been around at the very first electricity network price determination in 1995 when, about three months after the determination, one company, whose name I shan't mention, managed to find £500m to give to investors on the basis of the deal they had just done with the regulator.

Bob has just said that NGET underspent by 20 per cent, or was expected to, over RIIO-1. These are anecdotes, but actually if you look right across the piece, at every regulator across the world, there is a consistent pattern of outperformance against expenditure plans, and that's an obvious consequence of the asymmetry of information. So, there is an issue. What are you going do about it? Our view was that the outperformance wedge is the best way we can think of of dealing with that problem. Anybody who can come up with a better answer, I'm sure Ofgem would love to hear it. So, that's that. We are, in a sense, reluctant supporters of the outperformance wedge; we don't see any other way to achieve the result that we're looking for.

On WACC, on return on equity, we are, in our final report and indeed in our response on draft determinations, we were very supportive of where Ofgem has landed in this area. We're aware obviously, as Akshay pointed out, that the CMA have come out since we responded to the draft determination and we are all looking rather carefully at that provisional determination to see what lessons can be learnt.

We have done a certain amount of work, and all I will say at this stage is that on the basis – and I have to confess this is verging on the anecdotal, but talking to a number of impartial investors in utilities in the UK and Europe and indeed in the US, we see no reason to change our view that the current Ofgem proposals are absolutely in line with the market and almost by definition therefore financeable.

I think I've come to the end. Bob, have I forgotten anything?

ROBERT HULL: No, that's it.

ROGER WITCOMB: Good. Thank you very much.

THE CHAIR: Many thanks to Roger and Bob for their comments.

We are now moving into the Q&A period, which is going to be orchestrated by Akshay. We have 30 minutes, so please do use the facilities to ask your questions.

AKSHAY KAUL: We're going to try and do this slowly and methodically to avoid overloading the system inadvertently. I do apologise, there may be a slight time-lag from time to time as people switch off and then turn on their mics, so don't get alarmed.

Let's begin the Q&A round. First of all, a big thank you to all our speakers so far for those extremely clear, very lucid explanations. Let's begin the Q&A round with our CEO, Jonathan Brearley, who will ask the first round of questions. Jonathan, over to you.

JONATHAN BREARLEY: First of all, Nicola and team, thank you for your presentations and for your feedback. I wanted to focus on reliability and resilience of the networks. I think we all accept and understand we need a very reliable network going forward. I don't think that's controversial. I guess I wanted to pick up on the comment that Bob just made from the challenge panel. What might concern a regulator who is worried about customers and making sure that customers are protected is if a company bid in one price control and then deferred those projects to another price control and bid for that funding again. In this proposal for RIIO-2, you have roughly, roughly in our minds doubled the run rate compared to RIIO-1 for asset health, but you significantly underspent last time. Can you help us explain to customers why they won't feel that they're paying twice for the same thing?

NICOLA SHAW: Thanks, Jonathan. I'm going to ask David to cover some detail, but just give a few sort of overarching points.

First, I think it goes to the general conversation about performance. For me, outperformance is a good thing. It is efficiency and innovation being delivered by the networks that goes to the heart of the RIIO framework. That's what it was all about; it was to encourage us to find new ways of doing things. The benefit of the RIIO framework is that customers benefit from that immediately, which is a radical transformation from where we used to be. Over T1 they have benefited about 50/50 with the networks from that creativity, and I think that's an important thing to hang on to because sometimes I think it gets missed in the sense of outperformance rather than innovation efficiency that delivers for customers as well as for the networks.

Secondly, in relation to how we think about what we need to spend on the network, we look at what the network needs to keep the resilience in the right place and what our stakeholders say they want of it. As the network changes, as the assets are used and as they experience life in the climate that we have, we see them changing in different ways and we recognise we have to reflect that. So, a large part of the allowance change relates to what we need to do to the network.

I'm going to hand over to David to give a bit more detail on that and give some examples, maybe, to show a bit of colour.

DAVID WRIGHT: Certainly, Nicola. Hello to everyone. To give you a couple of examples specifically, in the last regulatory review period we spent a lot of money replacing a number of circuit breakers. These were circuit breakers built in the 1960s and 70s, air blast and oil circuit breakers. But in actual fact, in the T2 period, because we've done a lot in T1, there's very few of those left, if you will, that need to get done in T2.

Conversely, on overhead lines or on protection control, there's larger volumes that we need to do. Protection control is those recognised computers on our sites that mean that we can operate the system safely and control the network. We've roughly got 18,000 of those computers, and a lot of them since the turn of the century, 2000 and onwards, have been microprocessor-based computers, with a typical 15-year age. So, they're just coming into their replacement period. With 18,000 on the network, you need to do about 900 a year. So, T2 is the ramp up period for that and then we will need to maintain those levels over T3 and T4, just to give you a couple of examples.

Also, the other reason why it's driving an increase in asset replacement is the resilience threats that are changing on us – cyber resilience, flood, but also operations and telecom. One of the reasons we have to juggle this is because the asset interventions you need to do from one regulatory period to another regulatory period are different, even though you are trying to maintain the risk level flat through those periods.

JONATHAN BREARLEY: Can I just come back, Akshay, if you don't mind, with a couple of follow-up questions? I will just come back to your characterisation. We are hugely enthusiastic about outperformance that is driven by innovation and we do see that as a big benefit. The concern I'm raising here is that customers don't get the benefit of an innovation; they simply end up having a project moved from one timeframe to another and end up having to add the funding that they paid with another price control.

If I might, I might just pull out that comment you guys mentioned about the clawback. Now, in my simple world, we have £1.5b worth of work that needs to be done across two price controls. A certain amount of money was allocated in RIIO-1, about £1b, and currently you're asking for roughly £1b for RIIO-2. In my simple world, that means you are asking customers not for a changed work programme, but for the same work programme and you're asking for £2b for £1.5b worth of work. Now, there is a debate about voluntary returns and Akshay did mention that we're looking at that, but can you explain how we square that principle with what customers need?

NICOLA SHAW: Jonathan, like you, I think hard about the regulatory framework. You and I have had lots of conversations about this. The importance of clarity from one time zone to another from a regulator, and just thinking back eight years, what Ofgem then said was it was incredibly important to give a fixed pot for defined outputs, and we even talked then about should we deal with the transition from one period to another and Ofgem said, "No, we think it is more important for stability and for consumers, for the value for consumers, if we keep it as one pot which has a fixed amount for fixed outputs". We indeed in some cases delivered more than those fixed outputs for the fixed pot. I think that's an important kind of background to all of this. Indeed, it was reinforced not just eight years ago but also at the mid-period review when Ofgem said, "Don't want to go there, don't want to reopen that", because we had made this principled decision about what is the right thing to do for consumers. So, I think if in the future we want to do this differently, that's fine, but I don't think that says we should change as we go looking backwards.

JONATHAN BREARLEY: Just before I hand over though, just to clarify then, whatever the arguments around the regulatory framework, that does end up with consumers paying £2b for £1.5b worth of work. Is my understanding correct?

NICOLA SHAW: No, I don't think so. As I said, I think we have delivered more in some categories. You have to look at this in the round, and that's the important part of it.

JONATHAN BREARLEY: Okay, over to you, Akshay.

AKSHAY KAUL: Since you have opened this vein of argument, Jonathan, I will take a stakeholder question. Nicola, it is in the same area so we might as well cover it now. Ed Rees from Citizens Advice is asking why have you said that reliability will suffer in RIIO-2 when you have chosen to spend in asset health for RIIO-1?

NICOLA SHAW: It isn't our desire for asset health to deteriorate in RIIO-T2. Indeed, we put forward a business plan which would maintain those levels because that's what stakeholders and consumers have told us that they want. We have been round that several times. Our plan protects that asset health and its resilience, and that's really important because that's what they have said they want.

In relation to T1, as I've said before, we haven't underspent, we have delivered *(inaudible – sound distortion)* than we were asked to and we delivered efficiencies which have gone back to consumers, both immediately once we delivered them and also enduringly through T2 because we baked those efficiencies into our business plan for the future.

AKSHAY KAUL: Thank you, Nicola. Let me turn to our Non-Executive Director, Myriam Madden, to ask the next round of questions. Myriam, please go ahead.

MYRIAM MADDEN: Thank you. I would welcome your views on the reopener process and specifically which area of the reopener process do you consider to be most important for Ofgem to reconsider and why?

NICOLA SHAW: Thank you, Myriam. I'm going to ask Chris to answer this question.

CHRIS BENNETT: Thank you. Myriam, I think when I went through my speech I pulled out some of the areas. I was going to highlight the top three. The first one is investments have already been triggered by the ESO's network options assessment. That already assesses against various scenarios. Those were scenarios that predated net zero so I think we're pretty confident they won't be needed. We should increase the baseline so we can crack on with that investment.

I think the second area would be the things that are not covered in the baseline for the medium-sized projects. Akshay mentioned it, I think moving to more upfront investments so we can get on at pace, but I absolutely accept what Bob Hull said, there are some lessons to be learned on RIIO-1 in terms of making sure we protect consumers, but there is absolutely a way through this to avoid bureaucratic ex post funding process and moving it to an ex ante.

The final one I would say is these large projects, getting clarity over who's going to be asked to deliver these projects, whether they're going out to competition, whether National Grid and the Scottish TOs are going to be asked to deliver it and really looking at the funding processes and how they align with the natural construction spend.

I mentioned a potential delay of 12 to 24 months. At the moment for our Hinkley Scheme we have sort of parallel tracked, getting consent and doing the preliminary construction work such that once we got consent we could move into construction. The risk with the current lottery process is *(inaudible – sound distortion)* approach, so we get planning consent and at that point there would be a decision who would do the work and that would introduce time-lags into the process.

I think they are all absolutely solvable and I have had lots of conversations with Akshay and Jonathan about these are process changes that I think we can put right that means we can progress at more pace with net zero, but protect consumers as we do it.

MYRIAM MADDEN: Excellent, thank you.

AKSHAY KAUL: Thank you, Myriam. If there are no supplementary questions from you then I will move on to our Deputy Director for Electricity Transmission. Min, please go ahead.

MIN ZHU: Yes, so this is just to follow on what we just spoke about earlier about customers not paying twice for the same work that's pushed back from one price control to the other. So, obviously we're still picking through what was supposed to be efficiency gain, what was definitely a pot of money that is for specific work that is pushed back to the next one. But looking forward though, what assurance does National Grid provide us this time in RIIO-2 that your plan will be delivered or if pushed back again then consumers do not pay for them more than once?

NICOLA SHAW: Thanks, Min. I'm going to ask Mark to talk about the specifics there. First off though, I should tell everybody that there was just one pot for non-load-related expenditure and that was an important part of the principle of RIIO-T1.

Secondly, to talk about the real importance of thinking about what flexibility we have to be innovative in this price control. David and his clever engineers will come up with new things, just as they have working with the smart wires organisation, for example, coming up with a totally different way of doing things. They can only do that if we have some flexibility. So it is important to us, and I think to our stakeholders, that we are really transparent, if things change, how they change.

Let me hand over to Mark, just to explain a bit about how we will commit to what kinds of things and how we will talk about change.

MARK BRACKLEY: Thank you, Nicola, and good afternoon, everybody.

Min, to take your question head-on, I think the answer is in relation to how the outcomes are measured and the use of tools such as deliverables which, alongside the funding that is granted, ensures that the company could be held to account to deliver the deliverable by the end of the period. As we have had conversations about, if for some reason that deliverable hasn't been met at the end of the period, it's clear what the consequence is in terms of clawing back allowances.

In the areas, as Nicola said, where there needs to be some flexibility I think price control deliverables need to focus on the output and the outcome that consumers are interested in. But we do accept there are examples, for instance, some of the very large projects where those projects need to be delivered, there isn't the need for flexibility in some areas and therefore the price control deliverables can be assessed at the end of the period to ensure that that deliverable has been met, and I think what's important is that the consequences of non-delivery are understood and clear and agreed upfront as part of the main price control. That's the main protection I see going forward for consumers.

AKSHAY KAUL: Thank you, Min. If there is no supplementary questioning on that then I will pass on to Stephen Henderson to ask the next round of questions. Stephen, over to you.

STEPHEN HENDERSON: Good afternoon, everyone. I just have one question. We have spoken a little bit about the consistent levels of outperformance across time, across regimes, and we have also had your consultation comments that we don't believe the outperformance wedge is the right way to address it. I would just be interested in your views on what is the correct response to consistent outperformance?

NICOLA SHAW: Thank you. Yes, I'm not convinced that the wedge is the right way forward. I think it's important that the incentives are – we think it delivers for consumers in the right way. We are pleased ---

AKSHAY KAUL: Darren, do you want to pick this one up?

NICOLA SHAW: Sorry? I was going to ask Chris just to give a ---

(Technical issue)

AKSHAY KAUL: I'm not sure if everyone can hear Nicola there or not.

DARREN PETTIFER: Just to reiterate a bit from what Nicola was saying there, we don't see outperformance as a bad thing from a price control perspective. It drives huge amounts of value for consumers and we should be incentivised to innovate and build things. I think obviously Jonathan talked about it earlier. There has been outperformance across the majority of networks in RIIO-1 but not all networks, so our gas transmission company is obviously underperforming allowances. As you look further backwards and look at the data that was produced by Ofgem in the draft determinations to back up their statement around ongoing outperformance, a lot of the outperformance they've seen is in the original price controls at the very start of our distributional transmission when the price control was set up to drive a huge amount of efficiency straight off. You take those figures out there, the outperformance levels have been one, two, three per cent at maximum historically.

Even if there was bigger outperformance previously across all networks, if you look at the price control even at the moment and work out what the bounds of that price control are and the risks and discussions and opportunities around that one, because to do otherwise we'd end up adjusting things between price controls and you'd end up with the wrong incentives on networks because they would think, okay, if I'm going to outperform this price control, it is going to get taken away in the next price control, so why would I be innovating? Why would I be improving things to consumers? So the linkage is the problem with the outperformance wedge.

We believe there is some asymmetry in terms of information, there are already tools that Ofgem have got and other regulators have got to be able to deal with that. So, we think conceptually the wedge isn't the right thing to do, but I think, more importantly probably for RIIO-2, practically it does not work against the framework we see where there are, as I talked about, big challenges from day one to even get to the out-return in the first place and also minimal incentives to try and close that gap. So, the sort of package isn't consistent with having a wedge of any level in it.

AKSHAY KAUL: Thank you, Darren. Thank you Stephen. Let me return to Jonathan who I think has another question to ask.

NICOLA SHAW: Akshay, may I just say one other thing?

AKSHAY KAUL: Please do. Sorry, go ahead, Nicola.

NICOLA SHAW: Thank you. I just wanted to address the underlying question here that people have been saying all companies always outperform, that's not the case. In the National Grid gas transmission of course that wasn't the case over the last control period. We invested ahead of allowances and more than the allowances that were provided by Ofgem, so it's not always that it works that way round. I just wanted to remind everybody.

AKSHAY KAUL: Yes, in some ways the NGET experience is surprising, I suppose, precisely because it is so exceptional, Nicola, but I take the point. Jonathan.

JONATHAN BREARLEY: One last question from me on this totex issue. I guess Nicola and team, what you are saying in RIIO-1 is there was a huge amount of innovation and money was able to be given back to consumers from whatever the level of RIIO-1 that was set. I think if RIIO-1 was set a little bit lower, then consumers would still be better off. I guess the question for me then is did we underestimate how National Grid could be as a company when we set the allowances last time and should we really be pushing that in terms of innovation and efficiency in RIIO-2?

NICOLA SHAW: Lovely question, Jonathan. I think last time round there were a lot of changes, so it was an eight-year period, it was moving into RIIO and it achieved, I think, the heart of the change that was wanted to be achieved which was to make us focus on asset management. That is the claim that networks didn't do that previously, and it really did it, it hammered home that network management is a really important long-term thing to think about, and you have reinforced that in the way you have set up RIIO-T2, really saying that the NARMs and thinking about average risk over the life of the assets is important. So I think you are putting the building blocks in there. I was really pleased to hear what Akshay had to say in relation to incentives and thinking about the SOTO link in particular. Perhaps Mark could just say a bit more about that because I think it goes to the heart of how to incentivise.

MARK BRACKLEY: Sure, Nicola, thank you. Jonathan, I think the key thing that needs to be recognised here is the step change in incentivisation that occurred with RIIO-1 in comparison with the previous regulatory arrangement, because RIIO-1 firstly created an eight year window which gives a much longer timeframe to bring innovations about but, crucially, the key difference is that it equalised the incentive between opex and capex, and for the first time it put really strong incentives on finding alternative ways of providing the network outputs at lower cost. Previous price controls used to incentivise, the more you spent on capex the more you earned and there was a very strong incentive to reduce opex. But RIIO-1 equalised those incentives and placed much stronger incentives to find alternative non-build solutions to delivering network outputs. I think that step change has driven an awful lot of innovation that wouldn't have otherwise happened, but there isn't that step change now between RIIO-1 and RIIO-2. We are continuing with that framework, so a lot of the low-hanging fruit has been delivered in RIIO-1 and that has now been baked into the RIIO-2 plan. Thank you.

AKSHAY KAUL: Thank you, Mark.

JONATHAN BREARLEY: I think I would just conclude by saying I have got every faith in the National Grid's innovation ---

AKSHAY KAUL: Sorry, go ahead, Jonathan.

JONATHAN BREARLEY: Sorry, there's a delay. I was just going to conclude, Akshay, by saying I have got full faith in National Grid to continue their capacity to innovate and their capacity to drive efficiency in RIIO-2.

AKSHAY KAUL: Very good. The next question is from a number of the unions and this is probably best taken by you, Nicola, and you, David, I think. The question is we have these risk metrics where we hold National Grid to account for the health of their physical assets in the network, but there is no analogue for the human capital that is employed in National Grid, and the concern I think some of the unions have expressed is, is there a risk that National Grid compromises the quality, particularly of the engineering workforce, in a pursuit of profit driven by these efficiency incentives, particularly in a stricter financial environment? What would you say to the unions on that particular question about your investment and commitment to the resilience of the engineering workforce in the years ahead?

NICOLA SHAW: Thanks, Akshay. Actually, it's great news that David is our Chief Engineer and he holds this as a really important responsibility, so I will ask him to talk about it in a minute. Let me just set a bit of context here. We published just two or three weeks ago a responsible business charter where we outlined all of our responsibilities as we see them, including to our staff. The National Grid is one of the leading employers in relation to diversity and inclusion in this sector and in relation to training. We have an outstanding training college which has got the outstanding award from Ofsted every time that it has been evaluated, and we take that really seriously. We think that is one of the reasons why the kind of innovation we have been talking about and the resilience of our network is delivered by our staff.

I am, I would say, worried if we get to the point where the final determinations are requiring a 40 per cent cut. That would be a serious hit to us and would give us challenge in relation to all of our staff, inevitably, given the nature of our costs. But given the positive conversation we've been having I am hopeful that we won't get there.

Let me ask David to talk a bit about how he leads our engineers and sees them develop over time. David.

DAVID WRIGHT: Yes, thank you very much, Nicola, and Akshay for the question as well. We're an engineering company at our heart and we take that incredibly seriously and that is why we have long-term programmes to grow our engineers of both today and tomorrow, and really invest in their continued professional development.

That's one of the reasons I think why we were concerned about and I was personally concerned about the draft determinations because I absolutely agree with the points that were made by a number of people on the adaptability of the regime given the energy transition that we're all moving through.

The other side of that is if it is a really, really harsh regulatory outcome, you have to be able to respond to that, but at the same time that uncertainty for us, and also actually for our supply chain, becomes a really difficult issue to manage because if you've got a large volume of work that needs to get delivered through the net zero and delivering the energy transition – we have seen the Prime Minister's recent announcement on that – what you need to do is invest in long-term engineering capability in order to deliver, that you can do it at a really, really economic price for consumers.

I think the final determinations do need to recognise this balance, but we're investing in our engineering capability and we will continue to do so.

AKSHAY KAUL: Very good, thank you, David. I am going to hand back now to our CEO, Jonathan Brearley, for some closing remarks.

JONATHAN BREARLEY: Thank you. A big thank you to everyone involved today. Let's start with Nicola and the National Grid Electricity Transmission team. Thank you to all of you, particularly for those of you for whom this was your second open hearing today. A huge amount of work has gone into this, a huge amount of work is going into the price control.

Equally, I want to thank the Challenge Group, the stakeholder groups, all of you who have joined us for this process, and finally I would like to thank the Ofgem team who have joined me today, including the board members.

I would like to say to all of you it is great that you're involved. We would like to have this public conversation and it's important for us to gather this evidence as we get forward to final determinations.

Equally, I would like to thank everybody involved for their continuing hard work on the price control overall. This is a huge decision on behalf of the country and we're grateful for all of the time and effort that everyone involved is putting into this.

Before I conclude, I would like to reiterate some of the things that Martin said in his opening remarks. We know these price controls play a really critical role in supporting a green recovery and helping the country hit its net zero target at lowest cost to consumers. Equally, I do think there is a strong consensus on the strategic direction of travel for these price controls. Lower returns, greater efficiency for companies and a clear recognition from all of us, including Ofgem, that we need more investment to get to net zero. Equally, I recognise that we do differ to the extent in which we see this change.

Since our draft determination, we have received a huge amount more evidence and we are looking forward to working with stakeholders to make sure we get to the right final determinations.

Coming on to this price control in particular, again, there is a huge amount that we agree on. We all want a reliable network and we all want to make sure that network can facilitate a pathway to net zero. I am grateful for the extra evidence that National Grid have submitted that will allow us to make a more comprehensive assessment of what the network might need by the time we get to final determinations.

Equally, there are areas where we can work constructively together. For example, the design of how we create that adaptable framework to allow us to support the pathway to net zero, how we make sure that regulation isn't a barrier but is an enabler to getting there, and National Grid highlighted some issues that we do wish to work with them on, for example, cash flow, pre-construction funding and how we deal with small and medium term projects, as well as the larger projects in a way that is both agile but also is robust on behalf of consumers.

Equally, we will need to work together constructively to get through all of the engineering evidence we have. I note the comments that were made by the challenge panel about the quality of some of the evidence that was there previously, but it looks like we have a solid foundation to get to final determinations.

But there is a lot that we need to debate further. National Grid have highlighted their concerns around some of our efficiency goals and we will need to work together on those. I note the comments the challenge panel made about those. On finance and returns, we note National Grid's comments around the overall level of returns, but equally we note the comments made by the challenge panel around their views.

We've talked a lot about asset health, and all I would say is that when going through that evidence, any regulator would be concerned about customers ending up paying twice for the same equipment that they're going to be relying upon. Equally, National Grid raises issues that we will need to work through with them, like, for example, the competition proxy model that we didn't spend a huge amount of time on today, but needs to be worked through in the business plan incentive.

Overall, there is a massive foundation for us all to build on, but equally there are some serious areas where we will need further work and further engagement as we get to final determination.

After this session closes there is an online feedback survey, so I would be grateful if you can give us your feedback on these sessions. As I have mentioned before, these are a first for Ofgem so we're very keen to understand how we run them better and, equally, how we've done in these challenging times. Equally, there will be a transcript and a recording available of this open meeting at the end of the series.

Finally, I want to thank all of you for coming to this, for all those who've participated for all their hard work in setting it up, for all of us for dealing with the tech issues in the best possible way, and I will just say thanks again and I look forward to final determination and bring these sessions to a close.