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Dear Akshay,

### **Open Letter on the next network price control review process**

We thank Ofgem for initiating this important consultation. Successfully delivering the energy transition will require massive investment and transformation in both the type of work the network companies will need to deliver and the way in which they do so, and the current regulatory framework needs to change to properly enable and support this fundamental shift. The current energy crisis only serves to emphasise the need for reform and we look forward to working with Ofgem on developing the necessary changes.

This response is from National Grid Plc and focuses on the impacts for our electricity network businesses, in particular on the next price control for National Grid Electricity Transmission (NGET), due to start on 1 April 2026. Many of the points in this letter also apply to National Grid Electricity Distribution (NGED, formerly - WPD), but we focus more on NGET as its next review will come first, and the RIIO-ED2 process is still underway. With many of the challenges and priorities for gas networks becoming more distinct, National Grid Gas Transmission is responding separately.

We have provided detailed answers and comments on the questions you raise in the Appendix to this letter, but before giving our specific responses we wanted to set out our key messages:

#### **1. Do you have views on the strategic issues we will face in the development of the next price control review process?**

We agree with the issues identified by Ofgem in the Open Letter, all of which will influence the work the network companies need to deliver in the coming years. Net Zero will be a dominant influence and the sheer scale of work this will involve in the next 5-10 years will require us to fundamentally transform how we deliver that work. The regulatory framework must support and enable this transformational shift in approach.

NGET alone will need to deliver c.£15-£20bn of investment in the next price control to meet the demands of offshore wind, new customer connections and network resilience. The only way we can deliver the ASTI projects is through a new programme enterprise delivery model, but this will require us to set allowances in a different way. When we then overlay the connections work and the urgent need to reduce connection times, it is clear the market needs us to move to anticipatory investment. We cannot lose sight of the fact we have to keep a resilient network as we do this – system access will be a huge constraint and is a primary factor for most lead times at the moment. We therefore need to innovate and transform how we think about delivering the work, exploring options such as offline build and modularisation. There may also be situations where it would be in the consumer interest for NGET to deploy alternative solutions to traditional transmission build, such as storage solutions, but would need the regulatory rules to allow for this. Given the volume of Net Zero work, replacement of assets will be driven by the need to uprate rather than by their age. This will fundamentally change our approach to replacing assets, as we will no-longer have stand-alone plans for “asset health” drivers. Finally, the combination of the new load drivers and an ageing asset base means we need to think about using site and regional strategies and building with the end-state in mind. The CCC notes that there will be a 50% increase in demand for electricity by 2035, with 70% of the generation needing to come from renewable sources. The Government’s ambitions for 50GW offshore wind by 2030 and up to 70GW of solar by 2035 underpin this.

## 2. Do you have any views on the case for change outlined in the Open Letter?

We broadly agree with the points made by Ofgem in Section 2 of the Open Letter, in particular the question of *“whether it continues to be practical and proportionate to follow periodic processes across the full remit of company activity when wider system challenges indicate a growing proportion of investment activity that requires decisions to be made in a faster and more coordinated manner”*. This goes to the heart of ASTI, where we cannot wait until 2026 to set the regulatory framework and allowances for those projects, nor to confirm how NGET will remain financeable when committing to that scale of investment. It is important we, and our investors, have upfront visibility on financeability for the life of the projects.

Ofgem’s 2023 consultation on the future framework must also provide further clarity on the role of the FSO in network planning and the influence its outputs (HND, CSNP, etc.) will have on setting the regulatory needs cases for investments; the role for onshore competition; and the implications of connections reform, all of which will closely influence the scope of work the network companies will be required to deliver.

## 3. Do you have views on whether the changes to the electricity or gas sectors mean we should consider alternatives to the approach taken in the RIIO-2 price control?

The strategic issues and case for change outlined above confirm that the current RIIO framework and the way in which it is being overseen by Ofgem (which we acknowledge is heavily influenced by some of the experiences under RIIO-1) will not facilitate the transformation that is needed to achieve the common goal of Net Zero. RIIO-2 is overly prescriptive, involves granular reviews and burdensome processes, focuses on ‘just in time’ investment and avoiding the risk of asset-stranding, and focuses too closely on the impact of investments on network costs, without taking account of the broader benefits those investments will deliver to consumers, society and the environment, for example by reducing wholesale price costs and constraint costs. This holds back the pace of delivery and innovative and flexible approaches the current challenges require.

## 4. Are there any broad frameworks or options that you think Ofgem should consider, including variants and alternatives to those set out in the Open Letter?

We think that to properly consider alternative regulatory approaches, we must first establish a set of principles against which the framework should be assessed. These principles should be informed by the views of stakeholders beyond the immediate energy sector, to ensure the framework enables the bold action that is needed to advance the energy transition and support Net Zero.

Ultimately, we need the future framework to reflect a major step change to allow us to get out in front of the problem, put us on the road to Net Zero and allow us to respond and adapt to volatility. It needs to:

- incentivise and reward for innovation (in technology and approach) and timely delivery of outputs that deliver whole-system benefits and make genuine progress towards Net Zero ambitions;
- work for our customers and stakeholders, reflecting their views in defining the outputs we deliver, and focusing on end consumer and whole system benefits;
- consider network investment against the overall benefits delivered to consumers and acknowledge that the costs of delivering network investment late will far outweigh the costs of being early or building something that isn’t needed straight away. NGET’s electricity transmission costs are around 1% of the average dual fuel bill while electricity distribution costs are around 10%, but these activities facilitate the whole bill. Generally the financial costs of not investing (in the form of constraint costs and higher gas-linked wholesale prices) are many times higher than the cost of investing, and so the regulatory regime needs to move to incentivising and speeding up network investment, rather than slowing down and disincentivising it as at present;
- delivers and embeds the principles we have been discussing under ASTI, i.e. provide early certainty on allowances, incentive package and financeability for strategic reinforcement, with the HND/CSNP establishing the need;
- allows us the flexibility to make optimal delivery decisions to maintain a reliable and resilient network. We cannot be held to detailed lists of prescribed projects and asset interventions defined prior to the price control, and instead we should be measured on outputs such as capacity headroom, reliability and overall asset condition, allowing us to take decisions such as not having an independent asset health

programme separate from reinforcement, or to align network reinforcement and customer driven work; and

- provide a fair return that reflects the risk profile of the company today, not its historic risk profile, and provide certainty on financeability for the life of projects given the scale of capex involved, not just for the remainder of a five year period.

## **Next steps**

It is critical that the right reforms are made, with broad support from all stakeholders including customers, the network companies and capital providers. We therefore recommend Ofgem convenes a cross-sector working group before the end of this calendar year, including participants from outside the immediate energy sector (e.g. major industries, large infrastructure developers, supply chain participants, local authorities, etc.) to identify the changes we need to collectively deliver and therefore the actions the future regulatory framework needs to enable. The working group should start with the principles of what the reforms need to deliver. There are successful precedents for this approach, such as the RPI-X@20 process that led in 2010 to the current RIIO framework. It is critical that such fundamental reforms are 'co-designed' with stakeholders, as was done last time. We are happy to work with Ofgem to help suggest participants and assist in setting up the group.

Once again, we thank Ofgem for this initiative and we look forward to working with you on these next steps.

Yours sincerely,

*[By email]*

**Ben Wilson**

**Chief Strategy and External Affairs Officer**

## Appendix

### Detailed responses to the Questions raised in the Open Letter

#### 1. Do you have any views on the strategic issues we will face in the development of the next price control review process?

We broadly agree with the strategic issues identified by Ofgem in the Open Letter and have set out some additional thoughts below. While these demonstrate there will be ongoing uncertainty and changes in the energy sector as it transitions to Net Zero, the most fundamental challenge facing the network companies, and necessitating change to the current regulatory framework, is the sheer scale of work they will need to deliver in the next 5-10 years in support of achieving a decarbonised system by 2035. The CCC notes that there will be a 50% increase in demand for electricity by 2035, with 70% of the generation needing to come from renewable sources. The Government's ambitions for 50GW offshore wind by 2030 and up to 70GW of solar by 2035 underpin this. NGET alone will need to deliver c.£15-£20bn of investment in the next price control to meet the demands of offshore wind, new customer connections and network resilience. This will require the networks to fundamentally transform how they deliver that work and the regulatory framework must support and enable this transformational shift in approach.

On the strategic issues identified by Ofgem:

- Networks will need to cater for new sources of power, more decentralisation and increased demand for electricity. This is already a key factor influencing NGET's approach to ASTI, where the significant offshore wind ambitions are driving the need for unprecedented volumes of new transmission infrastructure. At the same time, the increasing levels of both decentralised renewable generation and electrification of heat and transport is a critical foundation of the plans NGET has developed for RIIO-ED2. The significant increase in demand is also exacerbating the connections challenges and reinforcing the need for reform of the connections regime;
- The proposed role of the FSO would see it take on a more significant position in determining and coordinating future network development requirements, such as through the HND and proposed role in developing the CSNP, allowing Ofgem to re-focus its attentions on economic regulation. In addition, the network plans of the ESO/FSO will likely establish the 'needs case' for investments well beyond the artificial constraint of a 5-year price control period, meaning there will need to be ways to secure funding for the development work of the projects associated with those plans as and when needed, rather than at a specific point in a price control review;
- The location and timing of energy storage on the system will impact both electricity and gas networks. We believe the interplay between storage and transmission could present significant opportunities for consumer benefits, given the important role that storage does and can play in getting customers connected to the grid quickly at a low cost compared to traditional transmission reinforcements. Storage is increasingly being used across the globe as a substitute for network reinforcement<sup>1</sup>, delivering benefits for consumers in terms of both speed and cost of network reinforcement. We believe the current approach of treating storage as a sub-set of generation should be reviewed, as it could currently exclude it from the remit of solutions we could explore, even where it was in the interests of consumers;
- Supply chain challenges and impact of geopolitics will remain a key source of uncertainty, exacerbated by the competing demands from other countries seeking to decarbonise and improve energy security at the same time. We see the need for skilled resources as a key component of this, where we are already facing challenges in recruiting and upskilling the right level of resource; and
- The volume of natural gas on the system, both for power generation and as industry and heating decarbonise, will decrease, but the speed at which this will happen remains uncertain, which will remain a variable influence on the development of both the electricity transmission and distribution networks, as well as the gas system.

<sup>1</sup> For example, RTE's Project RINGO, France, where RTE is trialling automated management of an industrial-scale battery network, built in place of additional power lines.

We also think the following challenges are strategic issues that need to be considered in developing the regulatory framework:

- The need for our networks to become smarter, digitised, more automated and interoperable, to ensure they can be utilised in the most efficient manner, for example by optimising power flows and unlocking additional capacity, based on real-time data and operating conditions;
- The increasing demands for system access to complete the necessary work. This will need to be carefully managed to ensure it does not become a gating item to progress, as the volume of work to be carried out in the next price control makes coordinating the release of assets from NETS for maintenance and commissioning of new connections/equipment more complex – trade-offs and innovative solutions that work around system access constraints will be required;
- The need to address climate change adaptation, as well as mitigation. Networks need to be resilient now and in the future to increasingly frequent and extreme weather events, both in terms of their impact on the infrastructure, as seen during Storm Arwen, but also on demand, as seen through the increased demand for electricity during the record breaking temperatures in the UK this summer;
- The need for the energy system to minimise its own impact on the climate, for example through the removal or replacement of ageing/leaking SF6-insulated assets on the network; and
- The need to provide the flexibility for potentially more fundamental shifts in approach, as they move from concept to reality, for example, creating offshore energy islands to simplify and accelerate connection of offshore wind.

## **2. Do you have any views on the case for change we have outlined?**

The sheer scale of critical work and the innovative solutions the networks need to deliver in the coming years require a new regulatory framework which supports and enables the delivery of that work.

- The current RIIO-2 framework and regulatory approach is not fit for purpose. It:
  - is overly prescriptive, specifying detailed price control deliverables and outputs, which prevent flexible and innovative approaches to delivery;
  - involves granular reviews of needs cases and focuses on ‘just in time’ investment and avoiding the risk of asset-stranding, which doesn’t lend itself well to anticipatory investment;
  - measures the strength of incentives and the impact of RIIO in terms of the effect on the returns to investors (Return on Regulatory Equity (RoRE)), which does not account for other sources of customer value, which are now at least equally important as cost savings;
  - includes resource-intensive (for Ofgem and the network companies) re-opener and uncertainty mechanism processes, which prevent us moving at pace; and
  - gives too great a focus to the impact of investments on network costs, without taking a holistic view of the ultimate savings such investments would deliver to consumers, for example by mitigating constraint costs or reducing wholesale costs by connecting more cheaper, greener power to the system.
- RIIO-2 was designed with many of the experience from RIIO-1 in mind, which has led to this highly prescriptive approach in terms of the outputs the networks are required to deliver and moving increasing volumes of work into uncertainty mechanisms. While we acknowledge uncertainty around the scope of work creates additional risk (on both sides) in setting allowances early, the burdensome processes that need to be followed during the price control are resource intensive (for the regulated companies and Ofgem) and can remove focus from other key areas. We should of course acknowledge and recognise the lessons of RIIO-1, but the next price control needs to be forward looking and allow the flexibility necessary to manage and deliver in the face of change. The sheer scale of work required to deliver Net Zero ambitions and ensure energy security will need flexibility and adaptability in approach, for example, by using regional or site strategies rather than working through a pre-agreed asset-by-asset schedule of work, and by pursuing anticipatory investment to avoid the adverse implications of future disruption / constraints for consumers.
- As the Open Letter notes, speed and flexibility are important now. We need to ensure the regulatory framework is not overly burdensome and does not become blocker in itself by being overly bureaucratic and process driven. We acknowledge there is a natural information asymmetry between the regulated companies and the regulator which influenced Ofgem’s move to a more prescriptive approach in T2, but

this approach will not work for the strategic challenges and volume of work we are facing. Well-designed incentives that target clear actions or outcomes should help Ofgem get comfortable to move away from the prescriptive approach. We also recognise the importance of enabling greater transparency and consistency of our asset management through open access to digital information, and National Grid is investing in applications which will support this.

- Innovation will be a key part of the energy transition – the framework needs to provide incentives that will reward genuine innovation (in terms of both technology and approaches used) and timely delivery in the interests of consumers, rather than holding the regulated companies to a list of work developed before the price control came into effect.
- The regulator needs to ensure the cost/benefit impact of network developments are considered holistically, e.g. timely delivery of network infrastructure will reduce constraint costs and reduce wholesale costs by bringing increased volumes of cheaper renewables onto the system, which needs to be taken into account when assessing the investment required to deliver that network infrastructure.
- The use of RoRE as the measure to assess the strength of incentives and the impact of RIIO worked well when the primary focus was on incentivising cost savings and consequently equating cost savings with customer value (a key aspect of Ofgem's primary duty). However, the sector has reached a point where cost savings are no longer the primary objective and other sources of customer value are at least equally important. An alternative measure that captures consumer value and the consumer surplus generated by the regulatory framework is needed to place alongside RoRE, incorporating key elements such as:
  - The measure of cost savings, either captured through TIM or a related mechanism;
  - NPV positive benefits achieved through the delivery of investments in infrastructure;
  - Output and outcome related benefits delivered through ODI incentives (while it may be easier to value ODI-F incentives, in principle ODI-R incentives should also be included); and
  - Consumer benefits arising from sector level advances in innovation and through enhanced consumer value propositions.
- We agree there will be different challenges between sectors, i.e. for gas and electricity. These distinct challenges may lend themselves to different regulatory approaches, for example, the ASTI framework is specific to electricity transmission, but we would expect many areas within the regulatory framework to remain consistent/aligned between the sectors. It will be important that the regulatory frameworks across the sectors support and facilitate whole-system thinking.
- In a similar vein, we also agree there are different challenges within sectors. For example, the 2030 ASTI projects have different challenges/objectives to replacing ageing/leaking SF6-insulated assets. We have already identified the need for a different regulatory approach for the 2030 projects via the ASTI framework, to allow the electricity transmission companies to deploy different delivery and procurement models to drive the investment at the necessary pace, and the future regulatory framework must work alongside ASTI.

### **3. Do you have views on whether the changes to the electricity or gas sectors mean we should consider alternatives to the approach taken in the RIIO 2 price control?**

Successfully delivering the energy transition will require massive investment and transformation in both the type of work the network companies will need to deliver and the way in which they do so, and the current regulatory framework needs to change to properly enable and support this fundamental shift. The current energy crisis only serves to emphasise the need for reform. Simply rolling forward the current RIIO-2 framework or regulatory approach for future price controls would be the wrong path to take, given the scale of challenge in front of us.

In order to properly assess alternative options, we believe it is important to understand the significant demands on the network companies, the transformation this will require them to deliver, and therefore the principles against which an alternative framework should be assessed.

Driven by Net Zero and the strategic issues identified above, the demands on network companies are rapidly changing and increasing. Networks, including our own, need to support the delivery of:

- the Government's Net Zero ambitions for 2030, 2035 and ultimately 2050;



- greater energy security for Great Britain, reducing exposure to volatile international gas prices;
- fair, affordable energy for all; and
- a safe and reliable energy system, resilient to the challenges of today and of the future.

This will require the network companies to play a very different role to the one they have historically played. Net Zero will be a dominant influence and we are already starting to understand the scale of work this will entail. NGET alone will need to deliver c.£15-£20bn of investment in the next price control to meet the demands of offshore wind, new customer connections and network resilience. It is this sheer scale of what needs to be delivered in the next 5-10 years that will require network companies to fundamentally transform how that work is delivered and the regulatory framework must support and enable that new way of working. Network companies will need to adopt new approaches, as NGET is proposing to do for the ASTI work, using a new programme enterprise delivery model, which will in turn require allowances to be set in a different way. Pre-empting need and focusing on anticipatory investment will also be key to avoid a repeat of the current connection challenges, with the demand for electricity expected see an increase of 50% by 2035.

At the same time, network companies will need to ensure the ongoing resilience of their networks. System access will become a huge constraint and means that innovation and a fundamentally transformed approach to how network companies deliver the work will need to be explored, such as offline build, modularisation, regional / site strategies and building with the end-state in mind. We also believe there may be situations where it would be in the consumer interest for networks to deploy alternative solutions to traditional transmission build, such as storage solutions. In line with feedback we have received from recent stakeholder engagement, pace, flexibility and innovation will be key.

We therefore need the future framework to reflect a major step change to allow us to get out in front of the problem, put us on the road to Net Zero and allow us to respond and adapt to volatility. It needs to:

- incentivise and reward for innovation (in technology and approach) and timely delivery of outputs that deliver whole-system benefits and make genuine progress towards Net Zero ambitions;
- work for our customers and stakeholders, reflecting their views in defining the outputs we deliver, and focusing on end consumer and whole system benefits;
- consider network investment against the overall benefits delivered to consumers and acknowledge that the costs of delivering network investment late will far outweigh the costs of being early or building something that isn't needed straight away. NGET's electricity transmission costs are around 1% of the average dual fuel bill while electricity distribution costs are around 10%, but these activities facilitate the whole bill. Generally the financial costs of not investing (in the form of constraint costs and higher gas-linked wholesale prices) are many times higher than the cost of investing, and so the regulatory regime needs to move to incentivising and speeding up network investment, rather than slowing down and disincentivising it as at present;
- delivers and embeds the principles we have been discussing under ASTI, i.e. provide early certainty on allowances, incentive package and financeability for strategic reinforcement, with the HND/CSNP establishing the need;
- allows us the flexibility to make optimal delivery decisions to maintain a reliable and resilient network. We cannot be held to detailed lists of prescribed projects and asset interventions defined prior to the price control, and instead we should be measured on outputs such as capacity headroom, reliability and overall asset condition, allowing us to take decisions such as not having an independent asset health programme separate from reinforcement, or to align network reinforcement and customer driven work; and
- provide a fair return that reflects the risk profile of the company today, not its historic risk profile, and provide certainty on financeability for the life of projects given the scale of capex involved, not just for the remainder of a five year period.

There is also a need to ensure that any revised regulatory framework remains attractive to the investors we rely on to provide the necessary debt and equity capital to finance the investment required. Investors cannot be taken for granted. The UK regulatory regime is respected internationally and investors value stability. Events over the last few years have increased perceptions of risk and changes to the regulatory framework

therefore need to be seen as logical and sensible evolutions to address the strategic issues faced, with a balanced consideration of the needs to consumers, investors and other stakeholders.

**4. Are there any broad frameworks or options that you think we should consider, including variants and alternatives to those we set out?**

We do not think any of the alternative approaches set out in the Open Letter would meet all of the principles outlined in our response to question 3 above. We therefore do not consider any of the options would be suitable as a standalone alternative to the current framework. However, we believe elements of each option could be reflected in future price controls for appropriate workstreams, depending on how they are applied. We have set out below our initial views on each option:

- 1) **Continued use of periodic reviews with RIIO being adapted where appropriate:** We believe we are already in this space given the development of the ASTI framework.
- 2) **Alternative ex-ante regime with a simpler target to improve operating efficiency:** We believe this approach could work for certain categories of work, e.g. asset management, to allow more regulatory focus on other aspects, such as timely delivery of the investment needed to facilitate Net Zero. However, we would need to understand more around how the incentive would be set and what circumstances would lead to a review.
- 3) **Negotiated settlements:** While we agree negotiated settlements are good in theory, they can be hard to flow through in practice. The voice of today's and future customers must remain central in any future arrangements to ensure acceptability and we must continue to engage with our key stakeholders to ensure we deliver the outputs and outcomes they want and need us to deliver, against broader Government policy. Elements of this approach could be introduced for certain categories of work, to encourage enhanced stakeholder engagement/direction.

Where the FSO provides more central coordination of network development requirements, such as through the HND or CSNP proposed role, this is likely to have more relevance in the network developments required and the 'needs case'. For other categories of work, such as maintaining resilience and replacing ageing/leaking SF6 assets, these may be driven as much by their necessity, as by customers or other stakeholders.

- 4) **Ex-post regime:** A move to an ex-post regime was specifically ruled out by Ofgem in its RPI-X@20 review. We believe it remains unworkable on a standalone basis and would drive too much uncertainty in the price control and increase the cost of capital, and potentially willingness of investors to invest. Some aspects of an ex-post approach could be used on specific categories of work or incentives, but would only be acceptable if it involved a benchmark against a specific index/metric, rather than leaving to subjective judgment.