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Our ref

Your ref

Date

15 October 2019

Dear Akshay,

## **Open Letter Consultation on approach to setting the next electricity distribution price control (RIIO-ED2)**

I am writing on behalf of Western Power Distribution (South Wales) plc, Western Power Distribution (South West) plc, Western Power Distribution (East Midlands) plc and Western Power Distribution (West Midlands) plc. This letter and associated appendix set out Western Power Distribution's (WPD) full response to Ofgem's open letter consultation of 6th August 2019 on the RIIO-ED2 price control.

WPD welcomes the opportunity to respond to Ofgem's RIIO-ED2 Open Letter, as the first formal opportunity for stakeholder engagement specifically focussed on electricity distribution. We have been fully engaged in the broader RIIO-2 consultation process up to this point, taking each opportunity presented by Ofgem to consult, respond, and discuss the key elements for RIIO-2. Accordingly, we would like to highlight that as this is the third WPD response to Ofgem regarding the RIIO-2 price control, we have made reference to our previous responses and associated annexes, which remain relevant.<sup>1</sup>

Whilst the focus of Ofgem's work to date has been with regards to RIIO-T2 and RIIO-GD2, it is important that RIIO-ED2 is considered separately in light of the Government's policy for net zero carbon and the different risks facing different energy network businesses. We are concerned that many of the issues WPD has identified in previous RIIO-2 responses have not been addressed by Ofgem. We summarise a number of these issues below. Through this response and future engagement, WPD is keen to continue to work with Ofgem to establish a successful RIIO-ED2 package that will deliver for both today's and future customers.

### **RIIO-ED1 is working**

Despite the current price control being only half way through for electricity distribution, Ofgem acknowledges that RIIO-ED1 is delivering good outcomes for consumers.<sup>2</sup>

<sup>1</sup> WPD Response to Ofgem RIIO-2 Framework Consultation, 7 March 2018; WPD Response to Ofgem RIIO-2 Sector Specific Methodology Consultation, 14 March 2019.

<sup>2</sup> "RIIO-ED1 Annual Report 2017-2018", Ofgem, March 2019, Executive summary.

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Customers are receiving the highest levels of service and performance from the networks. As flagged by Ofgem in its recent State of the Market publication<sup>3</sup>, since 2015, customer interruptions in electricity distribution have fallen by 11%, reliability and availability levels are around 99.99%, and customer satisfaction with network performance is generally high.

DNOs are incentivised to deliver these customer required outputs through a variety of incentives in RIIO-ED1, with DNOs being funded or rewarded for delivery via incentives such as the Interruption Incentive Scheme (IIS), which accounts for 46% of the return on regulated equity (RoRE) outperformance against the baseline, with consumers experiencing fewer and shorter interruptions as a result.<sup>4</sup> RIIO-ED1 incentives continue to deliver service quality improvements to consumers. Although we recognise there are some weaknesses in the calibration of RIIO-1 that need to be addressed, overall, RIIO-1 has been successful and looking forward the focus for RIIO-2 should be on refinement, not fundamental change.

### **Cost of equity and financeability**

Under RIIO-2, Ofgem is proposing to make substantive changes to the overall return that companies can expect. Of key concern are:

- a) **The proposed reduction in the allowed return on equity from 6-7% to 3% (expected return 3-4%) (RPI real, post-tax):** the magnitude of the proposed reduction in the cost of equity lacks justification, and is out of proportion to any perceived changes in the market over the same period;
- b) **The proposed distinction between the Expected Return (ER) and the Allowed Return (AR):** Ofgem has argued that there is a gap between companies' expected returns (ER) and their allowed returns (AR), which justifies a further reduction in allowed returns. Not only does the way in which the differential has been calculated lack rigour (based on historical outperformance in previous periods unconnected to the current RIIO-2 proposals) it is also not clear whether this is attributable to outperformance associated with high delivery against incentive schemes, cost reductions or both. More importantly, the entire proposal lacks justification<sup>5</sup> and Ofgem should be seeking a symmetrical regime in which the allowed return matches the expected return.

Moreover, these features of Ofgem's current proposals will inevitably have an impact on financeability of the companies. Rather than regarding financeability as a problem for the companies, Ofgem should acknowledge that it is an indication of the appropriateness, or not, of the overall expected return on equity. The creation of financeability risks should be avoided.

### **Role of a DNO**

It is important to note the breadth of the RIIO-ED2 Open Letter. Ofgem appears to have taken the opportunity to examine the nature of electricity distribution in very broad terms, in some areas presenting the possibility of other parties undertaking roles currently entwined within a DNO's role.

<sup>3</sup> "State of the Energy Market 2019", *Ofgem*, October 2019, Executive summary.

<sup>4</sup> WPD Response to Ofgem RIIO-2 Sector Specific Methodology Consultation, 14 March 2019, para 2.3.10; also see Section 1.2.

<sup>5</sup> ENA Response to Ofgem RIIO-2 Framework Consultation, 7 March 2018; ENA Response to Ofgem RIIO-2 Sector Specific Methodology Consultation, 14 March 2019.

While the current incentive package for RIIO-ED2 still requires significant development, WPD is keen to remind Ofgem of the core aspects of DNO work: keeping the lights on, and ensuring customers are restored quickly and safely in a power cut. Ofgem appears to be over complicating relatively small parts of the package (e.g. NARMS), whilst failing to consider the price control in the round.

### **Incentives are essential in RIIO-ED2**

As discussed in previous responses, Ofgem's current proposals for a RIIO-2 incentive package are predominantly downside weighted.<sup>6</sup> Noting the significant degree of flexibility that DNOs must provide within RIIO-ED2, and the responsibility of bearing the risk of the current volatility that Ofgem has highlighted, it is appropriate that DNOs are incentivised and rewarded accordingly.

We are concerned that the proposed adjustment (effectively weakening) to the incentive regime, as well as the introduction of a Return Adjustment Mechanism and a distinction between Expected and Allowed Return will dampen DNOs' incentives to improve efficiency and make the long-term investments that are required in line with government policy.

It is important to consider the cumulative effect of the various proposed adjustments. For example, the Return Adjustment Mechanism introduces an additional layer of sharing which, in addition to the reduction of the totex incentive rate and the reduction in the term of the price control regime, is likely to undermine incentives to reduce costs. Similarly, the proposed very significant reduction in the Cost of Equity (considered above), in combination with the introduction of a distinction between Expected and Allowed returns.

WPD has further significant concerns around the proposed incentive package, which is currently lacking in detail. Where Ofgem has provided detail, they suggest that there should be incentive mechanisms developed around areas which are outside DNOs' areas of influence. Incentives should not be developed around such parameters. Doing so would risk windfall gains where the wider outcomes are delivered without contribution from the DNO, or unfair penalties where the outcomes have not been delivered even though the DNOs have gone beyond what could reasonably have been expected. If there are areas of decarbonisation that can be influenced by DNOs, these need to be separately identified and incentives built around those activities rather than the wider decarbonisation objectives. In short, DNOs should not be incentivised nor penalised for outcomes that are not within their control.

There are also concerns about additional negatively biased incentives being introduced outside of publicly communicated price control proposals. For example, Ofgem has proposed a punitive Asset Data Incentive by writing directly to DNOs, instead of including such proposals within the overall package of incentives.

### **Customer Focussed Outputs and Supporting vulnerable customers**

The RIIO-ED2 framework needs to maintain the focus on the outputs required under the relevant price controls. Clear, measurable outputs which can be directly linked to DNO action are essential. We have already established, and are working with, our customer engagement group, however timely clarification from Ofgem on the sector wide outputs would help to facilitate further detailed engagement with our stakeholders on the levels of performance they require. With regards to the high level categories proposed by

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<sup>6</sup> WPD Response to Ofgem RIIO-2 Framework Consultation, 7 March 2018, section 4; WPD Response to Ofgem RIIO-2 Sector Specific Methodology Consultation, 14 March 2019, section 4.

Ofgem, it is currently unclear where the environmental outputs sit within the RIIO-2 framework.

Ofgem's proposed objective for the RIIO-ED2 price control for DNOs to continue to provide excellent service to customers, while enabling decarbonisation in the UK economy, is welcomed by WPD.<sup>7</sup> We are already enabling this transition in RIIO-ED1, through the development of projects including Flexible Power, Energy Data Hub, Distribution Future Energy Scenarios, and the collaboration with the Office of Low Emission Vehicles. WPD is eager to further this work in RIIO-ED2 and beyond.<sup>8</sup> WPD has demonstrated its outstanding support for customers in vulnerable circumstances and those suffering from fuel poverty and is keen to ensure this is a well-functioning aspect of RIIO-ED2 with clearly defined outputs and adequate future investment.

### **Assessment of efficient costs**

WPD notes the absence of cost assessment in Ofgem's RIIO-ED2 Framework Consultation in the Open Letter. Whilst high level consideration is given to driving frontier efficiencies at a DNO and sector level through innovation and competition, proposals for how costs and efficiency will be assessed in RIIO-ED2 have not been communicated to DNOs. In light of this, we encourage Ofgem to devote thought to developing the RIIO-ED2 cost assessment framework at the earliest opportunity. Given the dynamic changes in the sector, many of which emanate from a policy direction, forward thinking of how the RIIO-ED1 cost assessment might be adjusted to acknowledge the incurrence and evolution of such arising new costs in RIIO-ED2 is important in order for the RIIO-ED2 framework to be fit for purpose and ensure efficient delivery of the outputs our stakeholders require. This reiterates WPD's view as set out in our response to the RIIO-2 Tools for Cost Assessment Consultation.<sup>9</sup>

Ofgem's proposals for a Business Plan Incentive, are reliant upon cost comparisons at a detailed and disaggregated level. It is unclear how any totex cost assessments will factor into the Business Plan Incentive assessments for high confidence and low confidence costs areas. Furthermore, the removal of IQI and the associated interpolation (where licensees were given allowances based upon 25% of their own forecasts and 75% of Ofgem's view), places a greater reliance upon the accuracy of any cost benchmarking carried out by Ofgem. This adds to the need to ensure that the tools for cost assessment are developed at the earliest opportunity.

### **Efficient Delivery of net zero target and energy resilience**

It is important to consider the financial cost of enabling the UK Government target of net zero carbon emissions by 2050. Throughout RIIO-ED1 WPD has been working to ensure we continue to deliver a resilient network, whilst also providing capacity for increasing network load. A UK transition to a decarbonised economy is set to result in further reliance

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<sup>7</sup> "RIIO-ED2 Open Letter", *Ofgem*, 6 August 2019, p. 4.

<sup>8</sup> Flexible Power: We are currently tendering for 184MW across 120 primary substations; representing over 10% of WPD's service area. We have 56.8MW of flexibility in contract with us and have successfully dispatched over 195MWh this summer to actively manage demand on our network and defer reinforcement;

Energy Data Hub: To accelerate the benefits to be gained from providing third parties better access to our data, we have created an Energy Data Hub which is the first step in our progress to realising the recommendations of the EDTF;

Distribution Future Energy Scenarios: We are just finishing our second complete round of DFES reports for our four licence areas. Using scenarios aligned to National Grid's FES, we build a bottom up picture of what demand, generation and storage is likely to be installed across our region and use this to drive analysis to determine where network investment will be required out to 2032.

<sup>9</sup> WPD Response to Ofgem RIIO-2 Tools for Cost Assessment Consultation, 23 August 2019, p. 2.

on electricity, and therefore electricity distribution networks. Hence it is vital that DNOs are appropriately supported through the upcoming price control to ensure we can deliver this in the most efficient and economic manner. Growing or reinforcing parts of the network will be inevitable to support decarbonisation efforts and WPD is keen to ensure customers are protected, both financially, and in their reliance on the network.

However it is currently unclear what Ofgem's position is in relation to network capacity investment, as least regrets investment – developing a network fit for 2050 – is not equivalent to minimum spend. Nevertheless, Ofgem appears to advocate both positions in the RIIO-ED2 Open Letter.

There may be a need for Ofgem to take a leading role in supporting a Net Zero result through enabling anticipatory investment. We note Ofgem's recent proposal for an inter-institutional group to assist with this assessment. WPD would welcome more detailed proposals on this initiative to enable us to further consider interactions with our own business plan development.

Ofgem's RIIO-ED2 Open Letter notes the use of flexibility services in order to manage growing pressure on the network, thus limiting unnecessary reinforcement. WPD is currently working throughout RIIO-ED1, as part of our transition to DSO, to ensure flexibility services are fully functional and support development of this into RIIO-ED2, but it should be recognised that in some cases this only defers investment, and does not replace it. Further, although flexibility improves utilisation of existing electricity distribution assets, such action will result in increased losses<sup>10</sup>. With this in mind it is important to ensure coordination across the development of RIIO-ED2 policy areas, to avoid conflicting requirements being placed on DNOs.

### **DNOs and DSOs should not be considered as separate entities**

WPD opposes Ofgem's consideration of DSO functions as potentially separate to that of the DNO. It is vital to remember the intertwined nature of DNO and DSO when making suggestions about the appropriateness of an "alternative function provider"<sup>11</sup> to be established. DNOs are currently transitioning into DSOs, evolving from one into the other; we have already implemented many DSO activities into business as usual.<sup>12</sup> There are clear examples of DNOs already delivering elements of DSO, for example WPD has delivered Flexible Power – a platform created by WPD to deliver the procurement of demand response services – a key aspect of DSO and hence delivering a decarbonised economy. As a result of these types of projects our customers benefit from a resilient energy supply and reduced future energy costs.

DNOs and DSOs should not be considered as separate entities. WPD considers that the complexity, and resulting cost, of attempting to separate DNO/DSO activities has not been sufficiently considered by Ofgem. WPD is concerned about potential interpretations that wider stakeholders may take from the Ofgem statement that "there may be a need to regulate some DSO functions separately."<sup>13</sup> It is important that Ofgem keeps the customer in mind when considering separate regulation, and the potential of any unintended consequences that the customer would be likely to bear the risk of.

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<sup>10</sup> Studies by Sohn Associates and Imperial College for WPD have shown that the optimum loading for assets is in the 10-40% range (depending on cable or line voltage and size) when factoring in the economic cost of losses. Imperial College & Sohn Associates, *Management of electricity distribution losses*, 2014

<sup>11</sup> "RIIO-ED2 Open Letter", *Ofgem*, 6 August 2019, p. 33.

<sup>12</sup> [Western Power Distribution - Network Strategy](#), 3 October 2019.

<sup>13</sup> "RIIO-ED2 Open Letter", *Ofgem*, 6 August 2019, p. 8.

We agree with Ofgem's conclusions in the DSO Position Paper, published in conjunction with the RIIO-ED2 Open Letter, that "At this time, we believe it is too early to implement institutional reform at distribution level as DSO functions are still developing."<sup>14</sup> We understand the concerns raised by stakeholders around the risks of conflicts of interest when seeking to transition to a more active network utilising third party resources to manage capacity and have implemented organisational changes and processes to address these concerns. We are currently consulting on these as part of a wider consultation, 'Delivering a Flexibility First Approach'.<sup>15</sup>

We also agree that there are a number of least regret actions that that can be taken now to progress DSO which we highlight under the strategic outcomes in our response to Ofgem's DSO Position Paper.<sup>16</sup>

## Conclusions

WPD welcomes the opportunity to feed into Ofgem's RIIO-ED2 Open Letter consultation at a critical stage in the delivery of the Government's policy objectives of delivering a secure, affordable energy system that continues to enable the transition to "Net zero". WPD will also be seeking to ensure that we continue to deliver on our stakeholders' requirements as we move ahead with RIIO-ED2. We reiterate that RIIO-1 has been successful and looking forward, the focus for RIIO-2 should be on refinement, not fundamental change.

Yours sincerely,



Paul Branston  
Regulatory & Government Affairs Manager

Enc: Response to Ofgem's questions from the RIIO-ED2 Open Letter Consultation, Western Power Distribution

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<sup>14</sup> "Position Paper on Distribution System Operation: our approach and regulatory priorities", *Ofgem*, 6 August 2019, para 1.18.

<sup>15</sup> [Your Future Power](#), 3 October 2019.

<sup>16</sup> WPD Response to Ofgem DSO Position Paper, 15 October 2019; please also refer to ENA Response to Ofgem DSO Position Paper, 15 October 2019.



## **Appendix – Responses to specific questions in RIIO-ED2 Open Letter**

### **Ofgem’s proposed objective for RIIO-ED2**

→ **Question 1:** Do you have any views on the proposed objective for RIIO-ED2?

We are supportive of some of the proposed objectives in the RIIO-ED2 open letter. As we have previously stated, we believe that many elements of RIIO-ED1 are working and we are keen to ensure the regulatory framework continues to develop balancing the competing stakeholder priorities, including Government, customers and investors. As we stated in paragraphs 1.5 to 1.10 in our response to Ofgem’s framework consultation, Ofgem should pay due regard to the principles of good regulation as it develops RIIO-ED2.

Ofgem should give careful consideration to how it balances its objectives of ‘keeping bills as low as possible’ and ‘ensuring DNOs deliver the value for money services that both the existing and future customers need’. The difference between these two objectives is significant and must not be confused. Efficient whole system approaches and timely efficient delivery to meet future customer needs should form part of the fundamental objective for RIIO-ED2.

### **Strategic approach to RIIO-ED2**

#### **How to set price controls that support decarbonisation goals**

→ **Question 2:** To what extent should we take into account outcomes linked to decarbonisation targets, and what outcomes might this involve?

DNOs will play an important role in facilitating the decarbonisation of transport and heating by providing the infrastructure to distribute power to where it is needed. However, meeting decarbonisation targets will also depend on action from a range of other third parties.

Licensees should only be incentivised on the areas of activity that they are directly responsible for in delivering the facilitation of decarbonisation.

Linking DNO revenues to outcomes influenced by third parties significantly increases the risks for licensees, because their revenues are no longer under their own control.

The shorter five year regulatory framework should seek to identify the role that DNOs will play and establish revenue mechanisms related to the activities that DNOs are funded to carry out. Under such an approach, Ofgem would be able to hold companies to account for this delivery and licensees would have the clarity of how their actions influence their revenues.

Targets for decarbonisation are set by external bodies and in many cases rely on a change in customer use or behaviour to be achieved. This is often triggered through short-term or time-limited government incentives or through Government driven increased cost or tax measures. Customer behaviour will also change over time as changes become more embedded and accepted. It is important to differentiate short term incentives or disincentives driven by UK policy from long term asset life investment decisions. Outcomes linked to these targets could skew the long-term plans of a DNO that is

investing in assets with a circa 50 year life. DNOs do not directly deliver the customer products and services which will achieve decarbonisation, and so should not be assessed against their deployment. Whilst it is key that DNOs provide sufficient and economic network capacity for decarbonisation, the speed of up-take cannot be dictated by the DNOs. DNO targets should be set to support the long term decarbonisation goals, rather than the shorter term Low Carbon Technology (LCT) demands and up-take which can be seen within a single price review period. DNOs could be set high-level targets to support decarbonisation, but setting short term targets can be complex. For example, within the RIIO-ED1 period we have seen the connection of solar generation accelerate much quicker than any of the scenarios used in the RIIO-ED1 submission process. Setting targets against those scenarios, which were regarded as reliable, would have allowed DNOs to surpass the volume targets (and achieve this through the actions of others). DNOs should be measured on the aspects under their control in meeting the overall high-level targets of supporting decarbonisation through to 2050.

→ **Question 3:** Are there activities that DNOs are best placed to carry out in order to achieve these outcomes? What are the alternatives? Why would it be appropriate for energy consumers to fund these activities?

DNOs provide the infrastructure for the distribution of power. Ensuring that there is adequate capacity for network user needs is a core activity that should be carried out by DNOs.

The UK's decarbonisation aspirations require greater use of electricity and the commensurate expansion of capacity of the power networks. DNOs are well placed to use information about the network, energy use changes and resultant capacity constraints in order to determine the solutions that allow charging of electric vehicles, electric heating using heat pumps and more localised generation/storage.

DNOs are therefore best placed to carry out the network analysis, determine the work required and deliver that work across an expansive network across the distribution voltages.

The decarbonisation agenda is being driven by UK government policy, and correctly so because of the UK-wide and global benefits that it will bring. It could be argued that the benefits obtained should be funded through general taxation. However, as consumers of energy, energy customers should be paying for the costs associated with delivering the distribution service.

DNOs are best placed to take a long-term view and install or uprate assets which are suitable for the forecasted demands for a decarbonised future. When assets are commissioned DNOs are well placed to size them for the future and deliver a cost effective long-term economic solution. Looking ahead in this way significantly reduces the need for reactive uprating at a later date with additional cost. It is always appropriate for consumers to fund activities which are an economic solution to a future capacity requirement. As an alternative to this, but also as a complementary solution, DNOs should look at using flexibility and DSO functions to ensure that the physical reinforcements they deliver are the correct ones based on demand growth and predictions. The flexibility solutions allow a DNO to ensure that the network remains adequate whilst balancing growth and options for reinforcement. This way of working supports the Committee on Climate Change's recommendation that network infrastructure is augmented to avoid the need for further upgrades out to 2050.



→ **Question 4:** How should we assess DNO funding requirements and measure DNO performance in these areas?

RIIO-ED1 is delivering good outcomes for consumers. Customers are receiving the highest level of service and performance from the networks and electricity interruptions are at an all-time low. Thus RIIO-2 should build on the success of RIIO-ED1 and maintain the principles of good regulation.

As per our response to the Framework Consultation, Ofgem should build on the rich dataset and information it has gathered during RIIO-ED1 as a starting point for the RIIO-ED2 funding requirements and assessment of DNO performance before considering significant future policy changes.

Applying the core principles of good regulation is essential in RIIO-2. The overall balance of risks, rewards and incentives needs to be considered holistically, as a price control “in the round”, and hence it is important the overall package is assessed, rather than looking at component parts in a piece-meal way, to ensure that adverse unintended consequences do not arise.

→ **Question 5:** How should we incentivise DNO performance when the achievement of outcomes could be dependent on the actions of others?

It is imperative that any incentive mechanism focusses solely on the activities that the DNO can influence.

This avoids windfall gains where the wider outcomes are delivered without contribution from the DNO or unfair penalties where the outcomes have not been delivered even though the DNO has gone beyond expectations.

If there are areas of decarbonisation that can be influenced by DNOs, these need to be separately identified and incentives built around those activities.<sup>17</sup>

### **How to set price controls that support strategic investment**

→ **Question 6:** How do we ensure that network companies are best placed to undertake strategic investment and manage the associated risk? How should the risks of these investments be managed?

DNOs recognise the uncertainty of forecasting models and the impact that this can have on investment decisions. DNOs are increasingly able to utilise better modelling data which is key to predicting the network demands of the future and this is well established through the National Grid Future Energy Scenarios which can be used at a more local DNO level. Working with National Grid also provides a consistency across the whole energy sector which is key to delivering decarbonisation. By their nature strategic investments will often not be fully utilised within a shorter period such as a price control period, but are often the prudent solution for a longer-term objective (such as the 2050 net zero decarbonisation timescale). It is difficult to assess the efficiency of long-term investments

<sup>17</sup> Please also refer to WPD Response to Ofgem RIIO-2 Sector Specific Methodology Consultation, 14 March 2019, GDQ27, paras 5.4.41-5.4.44.

through a single price control window, but this must be balanced against the risk to society if network capacity is not available to support decarbonisation. The tool that DNOs have to manage this uncertainty is the flexibility brought about by the transition to DSO, where short-term flexibility solutions can be used as an interim solution whilst more strategic developments are consolidated. Flexibility, however, has a much higher degree of risk, due to fluctuations in market pricing, availability and reliability of third party assets and uncertainty of forecasted volumes of flexibility energy required. DSOs will, depending on DNO investment, have access to smartgrid flexibility to mitigate some of these risks and are best placed to manage these. However, the increased risk of using flexibility over conventional reinforcement must be recognised and incentivised and rewarded accordingly.

→ **Question 7:** What, if any, changes to the framework are required to support strategic investment?

Many of the challenges that WPD will face in the future relate to UK plans for decarbonisation, increasing the quantity of energy supplied from our network. The new drivers in this area relate to heat and transport and, as such, we cannot address these alone. Changes to heating systems and the vehicles we use will be driven by customer choice but, more importantly, by incentives and signals given by Local Authorities (LA) or other regional groups. It is only by working in conjunction with these groups that we will develop a coherent response and an efficient network. We have already worked with communities and LAs on projects such as 'MOZES' (Nottingham), 'Sola Bristol' and Bridgend 'Smart Systems Heat'. We sit on the West Midlands Combined Authority Energy Capital Board and support six energy enterprise zones. We are planning to work with the West of England Combined Authority, South Wales 'FLEXIS' and Cornwall Council's 'Energy Island'. In 2019 a key theme of our local based stakeholder engagement has been LA interaction specifically regarding EV charging which brings many LA departments together.

→ **Question 8:** How should we hold the companies to account for the delivery of strategic investment, and the outcomes that they are expected to deliver?

As discussed above, strategic investments have a long timescale for delivery against demands they are planned to meet. DNOs should be required to demonstrate their strategic investments by providing long term network plans which compare network capacity against future energy scenarios over a defined time period or periods i.e. 10 year / 20 year etc. By regularly updating these plans DNOs could show how their strategy is delivering the capacity required for future customers.

## **How to set price controls for DSO functions**

→ **Question 9:** Is there a need to separate out the revenues and outputs for 'traditional' DNO functions from DSO functions? How could this be achieved?

Both the DNO and DSO functions are providing the same end product, a network that is capable of meeting customers' existing and future demands in the most economic and efficient way. The short-term flexibility of a DSO solution will help the decision making and delivery of longer term DNO network upgrades. The revenues are therefore linked

and need to be considered together in any settlements. A DSO will deliver flexibility if it is an appropriate economic solution that defers or avoids a conventional reinforcement, so the costs of DNO and DSO solutions are interlinked in any cost benefit analysis. A DSO should be asked to demonstrate flexibility achieved in a £/MWh or £/MVA sense as a comparison to the same costs for a physical reinforcement.

→ **Question 10:** In the event of the DSO function being delivered by a separate party, how might we determine the revenues for DSO activities? What type of funding model would be appropriate to set DSO revenues? In this event, would changes also be required to DNO revenues and outputs?

As detailed above, the revenues of a DSO and a DNO are linked. Whenever DSO flexibility provides an economic solution this has either deferred or avoided a DNO conventional reinforcement. The cost recovery model for the conventional reinforcement would have been set for the DNO as part of a price review, so deferral or avoidance would unlock revenues for the DSO. Any changes to DNO revenues or outputs should balance to DSO revenues and outputs. Where a DNO and DSO are separate parties these revenues should be considered across both parties. A DSO would require a similar set of revenues to a DNO, including elements for reinforcement (avoided) but also more generic revenues to deliver the management and maintenance of DSO systems. The necessary complexity of this reinforces WPD's recommendation that DNOs should undertake the DSO functions, so that a single company is responsible for the combined revenues and outputs.

→ **Question 11:** Where a DNO is undertaking a DSO function, what type of outputs or outcomes are necessary to measure how efficiently they are performing this function? Over what time period could these be measured?

DNOs already measure their network performance through a range of indicators which both lead and lag. Leading indicators include compliance with design standards, such as P2, and lagging factors are related to customer experience, such as CML and CI measurements. Similar outputs can be used for a DSO with leading indicators such as high level avoidance of reinforcement. Lagging factors could include the volume of DSO flexibility delivered or even the performance of this flexibility against preset contracts or targets.

### **How to set price controls that drive innovation and competition**

→ **Question 12:** In what ways could the existing arrangements drive more innovation and competition?

[Please also refer to WPD's responses to CSQ 44-64 regarding Ofgem's consideration to innovation and competition for RIIO-2 in our 'WPD Response to Ofgem RIIO-2 Sector Specific Methodology Consultation,' 14 March 2019.]

Competition is already well established in a range of areas across our licence areas (new connections and our flexibility tendering activity) and we agree that competition should be used where it can drive value for consumers. Competition can deliver benefits for consumers where applied appropriately, for example, third party providers of innovative network solutions.

WPD suggests a two-stage process for the new NIC similar to InnovateUK, i.e. to fund a feasibility phase followed by a demo phase. This would help reduce the amount of wasted effort and encourage more third parties.

In respect of NIC Governance, the current process for bidding is both time consuming and costly, where a significant amount of work is produced, in the form of a 100 page Full Submission Proforma (FSP). Further innovation and competition could be driven by splitting the bid process into two stages: the first a short summary proposal, akin to the current Initial Submission Proforma (ISP); and then if successful through that gate a funded element of work that delivers tangible output to GB customers and also forms the basis of a bid for the larger demonstration aspect of the proposal. That will enable Licence Network Operators and third parties to work more collaboratively and with a wider range of third parties by reducing the financial burden at the bid stage, whilst increasing the learning and output to the wider industry.

NIA Governance drives the proposed benefits of a project to be monetised. Whilst suitable for a significant number of projects, it may be more suitable and drive further innovation if a technology or solution could demonstrate its potential benefit in capacity released (MW) or carbon savings (CO<sub>2</sub>). This may be of particular benefit to drive innovation at lower technology readiness levels (TRL).

### **How to set price controls for a smart, flexible energy system**

→ **Question 13:** To what extent should we set (and incentivise performance against) baseline totex allowances for activities where flexible solutions could be provided?

Within RIIO-ED1 there is provision for the DNOs to deliver the required outputs across the price control period using alternative (innovative) methods, such as flexibility, and outperform the baseline allowances set against conventional reinforcement solutions. This outperformance is incentivised by the totex incentive mechanism.

Where the conventional reinforcement costs are still incurred within the price control period and it is only the timing or efficiency of delivery of investment that is improved, the existing mechanisms work well. However, if the investment in conventional reinforcement falls outside of the price control period, there is some uncertainty over how this affects the allowances and other recovery mechanisms. Clarity on how this will be treated would improve certainty over the usage of non-traditional reinforcement methods.

Mechanisms and incentives should also be devised that ensure DNO and DSO activities are adequately reflected over the longer term.

→ **Question 14:** Should we instead set allowances based on the costs revealed through the flexibility tendering process? How might this work?

No. Ultimately flexibility costs will be linked to reinforcement costs, so there is no need to follow this approach.

Currently distribution flexibility markets are immature and market led price discovery is developing. DNOs are providing information on investment requirements to allow

flexibility operators to understand potential value and markets are beginning to be created where competition to secure contracts exists.

Whilst recognising there will be some circumstances where additional benefits such as optionality, operability or decarbonisation may justify higher costs, all flexibility will be compared against the base case of conventional reinforcement, and the savings made through its deferral, to ensure it is economic. This will help to guide the market in understanding the value of flexibility, rather than the costs being driven by the cost of operating flexibility. This will also ensure the price of flexibility is market led and technology agnostic.

### **How to set price controls in a big data environment**

→ **Question 15:** To what degree should DNOs modernise their handling practices to adhere to data best practice, and therefore (among other things) provide available, transparent, and interoperable data about their networks? What measures will be needed to ensure data remains secure?

DNOs have always shared their data with a limited number of parties such as National Grid and the Suppliers to ensure that the whole electricity network can function. This has been a relatively closed share of data between a small number of parties. As DNOs transition to offer DSO functions the concept of “neutral market facilitator” becomes key and DNOs will need to make their data more widely and easily available. With this wider audience for data, best practice is key. Data should be made available in a consistent way to allow third party providers to work across DNO boundaries when providing flexibility to end customers. Security is key to the provision of data but in many cases the security risks relate back to the real time network management system used by the DNO. Data should be separated into (a) data which can affect the real time network, and (b) data that is just an output from the network. If network affecting data remains secure, output data emanating from it or any other static network data should be made readily available.

→ **Question 16:** How should we structure RIIO-ED2 to encourage metadata to be made available, and for data to be presumed open? How should we measure DNO performance in this area, and on what basis should funding be set to deliver relevant outcomes?

To deliver a “presumed open” solution Ofgem will need to set the level of data that is required to meet this objective. That level could be set as the baseline and DNOs could be incentivised to share data over and above this baseline level. The baseline should be standard across all DNOs and will be, by definition, the minimum level of data that is held by all DNOs concurrently. Data is only useful if it is accurate and timely so DNO performance could be measured in both of those areas.

→ **Question 17:** Do you agree with the themes we plan to include in our guidance on data best practice?

Yes. In terms of our data strategy, we are working towards delivery of the Energy Data Taskforce recommendations and are looking to progress the themes set out in paragraphs 2.36-2.47 of Ofgem's Business Planning Guidelines.

We will be taking an active role in the new Data Working Group being established through the Energy Networks Association, which is seeking to collectively develop a Digitalisation Strategy that will provide a consistent view of modernising energy data across all energy networks.

We are taking an approach of incremental change in order to deliver benefits to customers early and developing the systems and processes for data so we can optimise benefits through continuous improvement.

## **RIIO-ED2 Framework Consultation**

### **Length of the price control**

→ **Question 18:** We welcome views on our proposed position of a five-year price control for RIIO-ED2.

[Please refer to paragraphs 5.27-5.39 of 'WPD Response to Ofgem RIIO-2 Framework Consultation,' 7 March 2018 and paragraphs 3.3.3-3.3.5 in our 'WPD Response to Ofgem RIIO-2 Sector Specific Methodology Consultation,' 14 March 2019.]

When Ofgem introduced the eight-year control period in 2010 it was heralded as a move away from short-termism. The primary motivation for extending the period was the need to encourage longer term thinking. There is an inherent timing mismatch between a five-yearly price setting cycle and the much longer tenor of financing of infrastructure businesses and the investments they need to make. The potential benefits of a longer price control were considered to outweigh the risks.

Five-year price controls provide limited scope for this with business plans being submitted two years before the end of the control and developed for at least a year beforehand. In addition, aspects such as delivery of outputs and assessment of uncertainty mechanisms for previous price controls are closed out for the year(s) immediately after the start of the new price control. In short, with five-year price controls, some two to three years are spent making submissions on future price controls and one to two years are spent closing out the previous price control. This perpetual regulatory interaction detracts from focussing on delivery and enhancing customer service during the price control.

Ofgem's proposal for shorter price control periods in distribution also seems at odds with its desire to introduce indexation of RPEs, which should support the longer eight-year price control.



→ **Question 19:** Are there any elements of RIIO-ED2 price control that we should consider setting over a longer or shorter period? Please give reasons.

It is difficult to assess how Ofgem could set elements of the RIIO-ED2 price control over different time periods.

Even if it was deemed efficient to set certain cost allowances for a period extending over multiple price controls, without the certainty of key financial parameters, incentives and outputs extending over a similar period, this would bring additional complexity and risk to the price control.

### **Giving consumers a stronger voice**

→ **Question 20:** We welcome views on whether these enhanced engagement arrangements are appropriate for RIIO-ED2.

WPD is fully supportive of Ofgem's framework decision which sets out the arrangements expected for RIIO-ED2 - namely that distribution companies should set up a Customer Engagement Group (CEG) which is independently chaired.

WPD's CEG is fully established and well underway. Robust processes were followed for Chair and member recruitment. We would hope that Ofgem will ensure such processes are followed consistently by other companies to ensure groups are comparable on their scope and abilities.

WPD agrees that CEGs should report their views on Business Plans from local stakeholder perspectives and Ofgem's Challenge Group should report from the perspective of end users. Additional clarity on the timeline for Ofgem's Challenge Group involvement with CEGs would be welcomed.

There is a need for consistency in CEG approaches, in particular in ensuring some uniformity and comparability in the levels of challenge and scrutiny provided. WPD believes Ofgem should play a role in ensuring this going forward given the diverse approaches to those CEGs already established (e.g. a range in the number of members from seven to 16 (in our case)).

WPD agrees that CEGs should add to companies' wider pool of engagement mechanisms and believes that collectively such engagement will lead to better quality business plans that are reflective of local stakeholder needs and expectations of the future. WPD will continue to undertake a wide variety of engagement including topic specific workshops, surveys, research and Customer Collaboration Panels.

## Meeting the needs of consumers and network users

→ **Question 21:** We welcome views on whether the proposed output categories and incentive arrangements are appropriate for RIIO-ED2.

### Output Categories

WPD has contributed extensive commentary on the appropriateness of the new categories as part of responding to previous RIIO-2 consultations.

We maintain our position that the new categories provide less clarity for stakeholders.

Since Ofgem continues to pursue the move to three categories, both Ofgem and licensees should work towards ensuring that stakeholders understand what is covered by each of the new outcome categories. This applies equally to continuing and new price control activities.

The language describing the outputs/outcomes needs to be clarified. The terms 'outputs' and 'outcomes' appear to be used interchangeably. Going forward we proposed that the term 'outcomes' should be used consistently, when describing the three generic delivery requirements. This will avoid confusion with 'Output Delivery Incentives' which will be focussed on specific measures (such as IIS in ED).

We have previously highlighted that the language of the outcomes appears to give instructions or obligations rather than describe what consumers get. This is demonstrated by considering the use of the word 'must'. The word 'must' implies an obligation, with some form of consequence. This does not apply in all cases and therefore we propose the removal of the word 'must' and slight restructuring of the wording.

Furthermore there are references to 'all'. It may be impractical or prohibitively expensive to meet the requirements in all circumstances or for all customers. We therefore propose that the word 'all' is removed.

The inclusion of 'low cost' within the transition requirements, suggests that networks are currently not low cost and that part of the role of the energy system transition is to make them low cost in the future. We suggest that 'low cost' is removed in the transition requirements and replaced with the concept of efficient costs whilst meeting the objective to 'maintain a safe and resilient network'.

The environmental requirements do not consider the impacts of licensees' activities on the environment (e.g. SF6 leakage, fluid cable leakage); they are solely focussed on the energy transition. We therefore suggest the addition of 'manage the impact of their activities on the environment'.

These changes result in the following proposed outcomes:

- Meet the need of consumers and network users: Network companies deliver a high quality and reliable service to network users and consumers, including those that are in vulnerable situations.
- Deliver an environmentally sustainable network: Network companies manage the impact of their activities on the environment and enable the transition towards a smart, flexible and low carbon energy system for consumers and network users.
- Maintain a safe and resilient network: Network companies deliver a safe and resilient network that is efficient and responsive to change.

## Incentive Arrangements

The framework of the three elements needs further clarification to ensure that companies and stakeholders are clear on what each element covers and how it operates. This especially applies to Price Control Deliverables (PCDs).

The scope of application of PCDs is unclear.

On page 14 Ofgem states that PCDs are expected to capture those outcomes that are directly associated with baseline funding, such as outputs or input activities that should be delivered to a stated standard or that are significant and/or high value.

This implies that PCDs will be applied to all cost categories. This suggests that any investment category that has either an output measure or input volumes associated with it could fall under the PCD mechanism. Further clarification is required on the types of deliverable to be covered by PCDs.

Linking PCDs to all activities gives no flexibility for licensees to manage their networks 'in the round'; such as by trading activities as priorities change. There is no suggestion of how any over-delivery (driven by network need) would be treated. There is a risk that under-delivery will be clawed back under a PCD, but additional delivery (where needed by customers) will not be remunerated.

It should be recognised that having numerous close out assessments (associated with PCDs or ODIs) also adds complexity to the price control and would impact the timing of Revenue Adjustment Mechanisms (RAMs), assuming that close out adjustments for PCDs would need to be concluded ahead of any RAMs calculation.

→ **Question 22:** We are interested to hear if there are new elements of the services DNOs will need to deliver that should be included in the current output categories. Alternatively, we welcome views on whether these should be captured by a new output category. For these new elements, we are interested to hear how delivery of these services should be valued and measured.

The output categories of RIIO-2 should appropriately reflect the activities being undertaken by network operators. The structure of these output categories will depend on the services being delivered.

→ **Question 23:** We welcome thoughts on how to ensure that we continue to protect the interests of vulnerable consumers, particularly in light of the energy system transition.

In encouraging companies to address vulnerability in the widest and most holistic way possible, including recognising the potentially transient nature of vulnerability, there is a very clear role for network companies to help address fuel poverty. Where companies can demonstrate a clear link between fuel poverty and their core obligations to support vulnerable customers (in relation to emergencies and outages), then they should have a responsibility to do so.

WPD's own research in 2016/17 revealed that of those customers in fuel poverty, 43% are also eligible for the Priority Services Register (PSR). Identifying and supporting customers affected by fuel poverty is therefore a key responsibility for network

companies; however, it is for them to work with their stakeholders to define how far these responsibilities go and what outcomes they should be expected to deliver.

All network companies should also have a role in not simply identifying consumers in vulnerable situations, but to hold and maintain a PSR and take proactive measures to address vulnerability when responding to emergencies. There should then be a clearly defined role for gas and electricity companies to automatically share PSR data, to improve the customer experience and avoid customers having to register separately with multiple companies.

Ongoing innovation is essential, particularly in the fast moving space of DSO operations and rightly ensuring “no vulnerable customer is left behind”. The current Stakeholder Engagement and Consumer Vulnerability incentive is essential to driving up ambition, standards and positive outcomes for customers in this arena.

Ofgem’s own feedback after the 2018/19 incentive scheme continues to highlight that there has been a significant step-change in the approach of companies in this area as a result of the financial incentive structure. Ofgem’s assessment of companies, and associated rewards achieved, has helped to drive up standards in an area where outcomes and benefits for customers can be largely qualitative and difficult to quantitatively value. However, there remains some way to go and there is currently a significant disparity in the different performance levels of companies in relation to addressing consumer vulnerability.

Citizens Advice Scotland’s recent policy paper ‘Pylons, Pipes and People: Energy networks in Scotland and their changing role with consumers’ concluded that the gap in service provision for vulnerable customers is dramatically different depending on where they live. A financial incentive (potentially penalty and reward) would help to tackle the considerable differences in effort made by companies and the quality of outcomes achieved. A reputational incentive alone is unlikely to drive this same rate of improvement, given that there will be limited consequences for companies failing to aim for the most ambitious innovation and maximum value outputs.

The current incentive scheme drives innovation and continual improvement through annual competitive assessment. New initiatives come via an evolving and expanding programme - companies can’t predict five years into the future what they will deliver that is innovative and value-adding. If delivery is to become limited to only initiatives companies commit to at the start of the price control, then there is a risk that they will cease to be as innovative as at present.

## **Maintaining a safe and resilient network**

→ **Question 24:** We welcome views on how DNOs should continue to ensure their networks are resilient, particularly in the context of the new or changing way assets are used.

The move to a Network Asset Risk Metric (NARM) is an unnecessary complication of the measures used to monitor the delivery of asset replacement and refurbishment activity.

In particular, the aspiration to have a measure using lifetime risk is complex and risks exaggerating any inconsistencies in existing Network Asset Secondary Deliverable measures.

On Page 17 of the Open Letter Ofgem states:

"Our proposed position is that the Network Asset Risk Metric (NARM) will apply to RIIO-ED2, as part of a toolbox approach to justifying and assessing network companies' (proposed) investments and preferences for chosen strategies. In developing the detailed arrangements for NARM, we will build on the progress already made in developing NASDs in RIIO-ED1."

Network Asset Secondary Deliverables are measured using the Common Network Asset Indices Methodology (CNAIM) developed at the start of RIIO-ED1. CNAIM was not available at the time of specifying business plan proposals for RIIO-ED1 and had to be back-fitted to the agreed investment programmes.

CNAIM is a common reporting framework, but relies upon individual DNOs to map their asset management practices to the inputs. Ofgem's Engineering Hub is investigating potential differences of application and interpretation, which could lead to additional guidance being introduced, extensive data audits and a punitive Asset Data Incentive.

Given this background of the NASD mechanisms being in its infancy, it does not seem appropriate to start to extend its application to consider whole life risk. It would be better to maintain its current application to 'point-in-time risk' and ensure that it provides consistent results across the industry.

Ofgem's proposal to use NARM for assessment of proposed investments appears to omit the need to consider NARM as a reporting and monitoring framework. Network Asset Secondary Deliverables using CNAIM are a simpler (albeit still complex) approach to holding companies to account. NARM is an unnecessary further complication that adds regulatory burden for limited benefit.

### **Opportunity for simplification**

For RIIO-ED2, Ofgem has introduced the concept of Output Delivery Incentives in order to hold licensees to account. Over shorter price control periods it should be feasible for licensees to propose asset replacement investment programmes and deliver the agreed volumes of activity.

The agreed volumes could be used in volume drivers or ODIs to mechanistically make allowance adjustments without the need for vast amounts of data feeding Network Asset Indices, Network Output Measures or further complication to NARMs.

This would lead to simplified price control arrangements, whilst retaining Ofgem's capacity to hold companies to account for non-delivery.

[Please also refer to paragraphs 5.1.132-5.1.134 in our 'WPD Response to Ofgem RIIO-2 Sector Specific Methodology Consultation,' 14 March 2019.]

→ **Question 25:** We are interested to hear stakeholder views on how DNOs should ensure their networks are resilient to physical and/or virtual threats, as well as being able to withstand the effects of adverse weather and the impacts of climate change.

[Please refer to WPD's response to CSQ 32, paragraphs 5.1.158-5.1.160 in our 'WPD Response to Ofgem RIIO-2 Sector Specific Methodology Consultation,' 14 March 2019.]

DNOs should take a holistic, risk based approach to manage physical, personnel and cyber risks to our networks.

Traditionally, physical and personnel controls have served to mitigate many risks to the electrical network from theft and accidental/malicious interference or damage. This approach should continue with the flexibility to harden assets where the risk becomes higher due to specific site or other factors.

Energy networks will become more interoperable and interconnected, operational and market mechanisms will be increasingly reliant on DNO systems providing and sharing accurate, timely and reliable data. DNOs are required to meet the requirements of the 'Network and Information Systems Regulations' to increase the levels of security and resilience of critical systems used by 'Operators of Essential Services'.

DNOs should assess and manage the 'end to end' security and resilience of their networks, using the principles of risk assessment, 'secure by design' and 'defence in depth' to reduce overall risk and increase resilience. DNOs should continue to address risks in an appropriate, proportionate and efficient manner - implementing controls (whether they be physical, personnel or cyber) to protect and ensure resilience of our systems to accidental or malicious cyber and cyber-physical threats. This security should be consistent, as appropriate, across industry sector with information obtained via industry collaboration sourced at Energy Emergency Executives Committee (E3C) and National Cyber Security Centre (NCSC) etc.

DNOs will need to invest in technology, processes and people to design, implement, protect and monitor these critical systems. New roles are required and will continue to emerge over the next regulatory period, whilst existing staff will require new skills to support these changes. DNOs will need to have appropriate architectures and controls in place to ensure that they maintain levels of security and resilience whilst enabling and facilitating digitalisation and innovation.

It is considered that due to the low probability, high impact nature of these risks and potentially significant investment costs of preventative and mitigative controls, Ofgem should provide a view, to enable forward planning and consistency across the sector of an appropriate level of risk; setting a level of what it considers may be 'appropriate' and 'proportionate' when looking at the balance of security and resilience versus cost to the consumer in the sector. However, this is not a static environment and future requirements are uncertain – technology moves quickly, the motivations and capability of attackers can change rapidly, altering the nature and severity of threats to the electricity network in a short period of time. As such it may be necessary to revise this level should there be a significant change in the threat landscape within the regulatory period. Therefore, in addition to strategic longer term planning, DNOs must have a mechanism to respond quickly and effectively, with the ability to introduce additional controls when and where necessary to defend networks and limit potential impact to our customers. Ofgem has noted the requirement for such a mechanism, which we suggest could be in the form of a reopener or alternatively a logging up mechanism.

DNOs have a great track record of responding to adverse weather, with WPD being well practiced in system recovery following such an event and we are one of the best performers in this area. Our experience of adverse weather is changing as climate change affects the weather systems which the UK experiences. In recent years, we have seen more severe storms and also multiple events of wind followed by rain. These create a combination which is more likely to affect trees near our network and lead to disruption. We have explained our response to these impacts and other climate change impacts including flooding, lightning activity and increased heat in our Climate Change Adaptation



Reports to DEFRA. We are currently working on our 'Third Round' report. Some of our climate change resilience plans include design changes to the electricity network as we either add new network or refurbish existing network. This helps us keep ahead of climate change impacts which are likely to be seen within the 50 year life of our assets. It is important that this proactive work continues to be funded in settlements.

→ **Question 26:** We would also like to hear how stakeholders believe climate change mitigation and adaptation may affect network maintenance and development in the short, medium, and long term.

In considering mitigation and adaptation to climate change, we use the Met Office, UK Climate Projection (UKCP18) and take into account projections to the end of this century given that much of the network infrastructure generally has an operational life expectancy of 30-80 years.

Research indicates that there is no evidence to support increased intensity of wind or ice storms, both of which can cause extensive damage to overhead electricity networks. However, an increase in the frequency of stormy weather is possible and this is likely to lead to more frequent periods of high winds which can pose a threat to electricity distribution networks due to falling trees and windblown material.

In the **short term** we continue our programme of substation flood prevention work. We have developed our capability to respond to flood events using portable equipment and mobile pumps. We have altered our specification for pole mounted transformers to improve their resilience to lightning. We have amended our overhead line design standards to take account of the potential rise in temperature.

In the **medium to long term** we see the main impacts on electricity networks from climate change projections as:

- Temperature—predicted increase
- Precipitation—predicted increase in winter rainfall and summer droughts
- Sea level rise—predicted increase
- Storm surge—predicted increase
- Increasing wet – dry cycles
- Increasing wind storm frequency (particularly when following high intensity precipitation)

Increasing temperatures will, without precipitation, lead to drying of the ground causing it to shrink. Any structures built on this ground will be subject to movement which, as well as being amplified by the height of the structure, can lead to instability of the foundations. Overhead line structures are more vulnerable to this movement but it can also impact on ground mounted structures such as transformer bases and switch house foundations.

Increases in both temperature and precipitation will lead to increased vegetation growth. This impacts on overhead lines as increased growth of branches of trees growing adjacent to the overhead lines can impact on minimum clearances leading to faults and physical damage

Ground movement caused drying and shrinkage will exert tensile forces on cables. Whilst cables have an inherent tensile strength, joints in the network are more vulnerable and

can fail by being effectively pulled apart. Extreme wet-dry and freeze-thaw ground movements will have a similar impact.

Localised build-up of heat, particularly in city environments, will lead to increased demand from air-conditioning and ventilation unit operation. Summer is always the season of reduced electricity usage, although this is becoming less true than it was. Increased demand can overload transformers causing tripping and loss of supply.

Increasing temperature impacts all plant and equipment and increases will impact on switchgear by reducing its capacity or in extreme cases lead to the switchgear tripping, resulting in loss of supply or operating incorrectly, damaging the network. Prolonged periods of hot weather will increase the temperature inside switchrooms above the maximum optimum operating parameter for the switchgear.

Increased storm frequency can lead to an increased lightning strike frequency. Where lightning strikes exposed substation plant or, more likely, overhead line assets the resulting surge will cause circuits to trip under fault condition. In extreme cases, lightning strikes will lead to physical damage to the assets or a loss of generation leading to other network protection systems operating leading to loss of supply.

→ **Question 27:** We would like to hear views on how we ensure DNOs remain resilient to the challenges presented by an ageing and changing workforce.

Ofgem has acknowledged the challenges facing DNOs in attracting, developing and retaining a sustainable workforce with the right technical skills to run our business effectively. WPD supports Ofgem's focus on this area, noting that workforce resilience is firmly a key responsibility of our business.

As part of this we have continuously taken on apprentices annually, with this programme expanding over the years.

We agree that our sustainable workforce strategy, including how we remain resilient to the challenges presented by an ageing and changing workforce, should be included as part of the wider business plan.

### **Delivering an environmentally sustainable network**

→ **Question 28:** We welcome views on how DNOs should work to minimise the impact of what they do on the environment and facilitate the transition to a low carbon energy system. We are particularly interested in the implications of the government's updated target of net-zero emissions by 2050.

We will continue to implement the measures committed to in RIIO-ED1 where these have proven to be beneficial to the environment.

### **Impact of WPD Operations**

DNOs' strategic direction with regard to the impact upon the environment in the next price control period will involve measures that are or maybe many and varied.

Some areas that DNOs may consider could include the following:

- Reduction of waste
  - Work with suppliers and manufacturers during procurement processes to ensure products have associated minimum waste
  - Including embedded disposal costs in procurement of DNO assets
  - Reduction of network losses by facilitating and developing, where networks allow, embedded generation closer to the point of demand
- Elimination of hazardous materials
  - Replacement of whole circuits and/or proactive management using PFT in Fluid Filled Cables
  - Identification and replacement of PCB contaminated assets in line with POP directives
  - Transition to cleaner modes of transport leading to reduced vehicle emissions
  - Seeking alternatives to SF6 insulated switchgear
  - Engagement with stakeholders to allow the early identification of emerging environmental risks so that appropriate mitigation can be applied
- Extension of asset life
  - Using new technology to improve asset condition assessments
  - DSO transition & Smart Networks

In relation to the government target of net zero emissions we consider there are a number of areas where DNOs can impact upon the target. These could include proactive carbon reduction initiatives as outlined below:

- Transport (fleet and non-fleet)
  - Enhanced procurement of EVs
  - Improved provision of charging points for company vehicles and facilitating public use of WPD charging points
  - Increased use of teleconference / webinars reducing reliance on non-operational transport
- Procurement
  - Introduction of carbon pricing along with monetary pricing for goods and services.
  - Encourage contractors & suppliers to report on embedded carbon associated with products and services
- Mobile generation
  - Move away from diesel towards battery generation or other low carbon technology, possibly synchronising with EV fleet
- Building Design
  - Further use of sustainable building designs for new substations / depots (e.g. 'green' roofs and natural air flow systems) reducing reliance on energy intensive air-conditioning systems, plus use of sustainable drainage systems (SuDs) where appropriate
- Working with suppliers to identify SF6 alternatives which will remove the impact of SF6 gas leakage on the environment

Where targets cannot be achieved, offsetting our carbon emissions may be considered.

### **WPD facilitating others in the transition to net zero**

Whilst under the previous 2050 targets, there was potentially still a role for some natural gas to be part of the energy mix, under a net zero target it is hard to foresee any role for natural gas in heating or electricity generation. The use of hydrogen and other 'green' gas products will inevitably increase as natural gas resources and demand decrease. However, expectations are that the net effect of these changes are that electricity demands for heat will significantly increase. Given the substantial variation in heat demand (even with

significantly higher levels of energy efficiency in buildings), the need to invest in both further network assets and increase the volume of flexibility available will grow rapidly. This emphasises the continued and rapid development of flexibility markets that we are already engaged in via our Flexible Power product and the work being undertaken in the Open Networks project at ENA.

The pathway to net zero by 2050 is also likely to put further pressure on bringing forward the need to decarbonise transport and hence we are likely to see the target for banning the sale of internal combustion engine transport brought forward from its current 2040 timetable with the need to support the roll out of a comprehensive EV charging network to encourage take up by customers.

→ **Question 29:** We also welcome views on what this may mean for the type of activities networks undertake, how these may be funded, as well as the outputs and/or incentives they should be exposed to.

The changes may require DNOs to change activities, working practices and or asset replacement programmes, examples could include:

- More localised point of delivery
- Additional training/retraining costs
- Changes to switchgear specifications which could lead to alternative plant items and challenges in relation to in situ asset replacement
- Potential risks around the lifecycle of the replacement of assets (potential that lifecycles could be shorter and hence increase costs for customers)
- Early removal of existing assets due to their potential impact upon the environment (e.g. asset replacement due to PCB contamination)

→ **Question 30:** Finally, we are keen to understand how DNOs' performance should be measured, and how we should assess the value that consumers place on the provision of these services and activities.

In responding to this question we are assuming that the ED sector will be requested to focus on the activities that transmission and gas companies have been asked to focus on, namely:

- Decarbonising the networks themselves, with an emphasis on business carbon footprint and embedded carbon in the networks;
- Reducing the environmental impact of network activity in areas such as pollution, resource waste, bio-diversity loss and other local effects; and
- Supporting the transition to a smarter, more flexible, sustainable low carbon energy system.

### **Decarbonising networks themselves**

In RIIO-ED1, licensees have been driving down their own carbon footprints by looking at energy use at depots and fuel used by vehicle fleets.

Whilst all companies have been recording data, there has been limited review of what is collected to ensure that all networks are including the same measures. This means that it is difficult to objectively assess comparative performance.

The measures for Business Carbon Footprint are an amalgam of network related measures (e.g. SF6 leakage) and non-network related measures (e.g. building energy use). It may be prudent to separate these measures so that it is clearer whether licensees are addressing both elements.

### **Reducing environmental impact**

Areas such as amount of leakage and waste are easier to measure than loss of biodiversity. Therefore any measures should be clearly related to activities that the licensees can fully record and manage.

### **Supporting the transition to a low carbon energy system**

This will be a core area of activity for RIIO-ED2, but the network solutions and business processes to support the energy transitions will be many and varied.

It is therefore more difficult to stipulate any forms of measures that wouldn't constrain the ability for evolution of solutions.

In order to ensure that the actions we take are the most appropriate and deliver maximum value to customers, WPD has well-established methods of measuring 'social' value. It is our opinion that DNOs need to adopt a sophisticated, multi-pronged approach of stated preference research, along with deliberative, qualitative focus groups to then triangulate the results. In doing this it is possible to derive the "intrinsic value" to customers of a wide range of activities that deliver qualitative benefits and therefore are harder to cost benefit in a traditional sense.

WPD's approach to measuring social value has culminated in a three-stage approach:

1. **Quantitative reporting** expresses the impacts of our actions in measurable, numerical terms.
2. **Monetary stated preference research** uses 'Willingness to Pay' (WTP) survey methods to derive the intrinsic value customers place on a range of possible qualitative outcomes, by asking what they would hypothetically pay to see them delivered.
3. **Qualitative triangulation research** – tests and provides context behind the WTP findings to understand what is driving customers' responses and prioritisations.

Social value is based on the amount people hypothetically state they would be prepared to spend to see outputs delivered. We are not therefore asking customers to pay more to fund activities, but using the technique to reveal the intrinsic value to them of the actions we can deliver. The derived values should not be used in isolation to justify expenditure.

WTP research should be used as a mechanism to prioritise actions based on the value placed by customers on the benefits each action is likely to bring. In addition to quantitative surveys, we commission focus groups with customers (weighted to ensure even representation across ages, social grades, genders and urban/rural dwellers) to test the results via qualitative research. This demonstrates that when time is spent with customers to help them understand the terms used, wider context and existing performance levels, some of the values they have previously stated do change.

WPD's approach has been acknowledged as "leading" by Ofgem over the last four years of the Stakeholder Engagement and Consumer Vulnerability Incentive and our approach has recently been adopted by all DNOs as part of a joint social value measurement exercise.

## Enabling whole system solutions

→ **Question 31:** We welcome views on how RIIO-ED2 can best capture the benefit of whole systems solutions. We are also interested in views on how these benefits should be measured.

To deliver whole system solutions there needs to be recognition that revenue will flow between companies to deliver economic outcomes for customers and there needs to be processes and mechanisms in place to achieve this. Transparency of system requirements which may be solved via whole system solutions should be visible to all network operators and third parties. Clarity on the appropriateness of network operators using their own assets to deliver system services should be provided, including how this will be remunerated.

The existing mechanisms in place to fund balancing use of system costs are controlled by the ESO. Wider access or equivalent mechanisms for distribution networks would accelerate the implementation of whole system benefits.

Where whole system benefit can be achieved by the advancement of investment plans due to savings in cost or disruption, this should be recognised.

→ **Question 32:** We further welcome stakeholders' opinions on whether the electricity distribution sector's approach to whole systems should be different from the other sectors and, if so, why.

There are no obvious reasons for differences in approach to this issue.

## Managing uncertainty

→ **Question 33:** We welcome views on how we should manage the uncertainty associated with forecasting allowances, and whether there are any mechanisms we could or should consider in helping to manage this uncertainty.

Ofgem has a number of well-established mechanisms for managing uncertainty including:

- Pass through
- Indexation
- Logging up
- Re-openers
- Volume drivers

For RIIO-2 Ofgem has also introduced the use of Price Control Deliverables which will operate in a similar manner to one-way volume drivers (with consequential greater downside risk for companies).

In managing uncertainty, there has to be a balance struck between the number of uncertainty mechanisms and risk that is being managed. There also has to be recognition that totex allowances 'in the round' allow licensees to balance evolving network needs 'in the round'.



Too many uncertainty mechanisms lead to complex and protracted close out processes at the end of the price control and given the shorter 5-year price controls, will mean that RIIO-ED2 would be being closed out into ED3 at the time when ED4 is already being debated.

The toolbox of mechanisms should enable Ofgem to select the most appropriate mechanism where significant uncertainty could lead to either windfall gains or losses for licensees. The assessment of which uncertainty mechanism is most appropriate should be discussed as part of the working groups looking at the policy arrangement and cost assessment approaches.

→ **Question 34:** We seek views on the use of indexation, particularly on any adjustments for labour and construction cost inflation.

[Please refer to paragraphs 1.4.13-1.4.17, 3.2.12-3.2.13, 5.2.74-5.2.78 in our 'WPD Response to Ofgem RIIO-2 Sector Specific Methodology Consultation,' 14 March 2019.]

### **RPE indexation requires more development before it can be recommended**

RPE indexation has been proposed without any evidence of clear analysis and thinking on how this would be undertaken and the potential implications of such a change. As RIIO-1 has demonstrated some form of RPE indexation is required, but it should only be introduced if sufficiently accurate (and exogenous) indices can be found. This is not an easy task. Taking the labour cost index as an example, energy networks have more unionised labour forces than the economy as a whole, where labour costs are typically more rigid in respect to wide labour market trends. However, narrowing the index down to say, public utilities, endangers the exogeneity of the index since energy network employees will begin to make up a material component of the index.

RPE indexation is, therefore, in principle a helpful innovation for RIIO-2 provided that the indices are relevant (i.e. relevant to unionised energy network labour forces), accurate, and exogenous (i.e. not dominated by the energy networks themselves). Consulting on the introduction of such an approach should only occur once these questions have been examined and the viability of the proposal ascertained.

An inappropriate index would raise risk and inevitably, unless reflected in a higher cost of equity, increase the financeability challenge.

### **RAV indexation (CPIH)**

In principle, an immediate switch to CPIH is acceptable provided that it is done in a way that ensures NPV-neutrality. The Moody's paper of 14th February 2019 entitled "Credit quality likely to weaken in RIIO-GD2 regulatory period" considers this switch to be NPV negative due to the way Ofgem has estimated TMR on a CPIH basis. Ofgem is yet to provide definite evidence as to the neutrality of such a move.

Furthermore, in their paper Moody's consider that without the switch to CPIH, the notional company's AICR would fall to a level that would not be consistent with an investment grade rating. It should be recognised by Ofgem that although a switch to CPIH eases companies' short term financeability following any sharp reduction in the cost of equity, it will only put pressure on long term financeability. It is not appropriate for Ofgem to rely on the switch from RPI to CPIH to improve the financeability of the RIIO-2 package or to justify lower allowed returns. It appears from section 6.6 of the Finance Annex to the

Sector Specific Methodology Consultation of December 2018 that Ofgem are partially justifying a reduction in cost of capital by the switch to CPIH.

As yet, Ofgem has not provided a full impact assessment of the switch. Ofgem has proposed the use of a forecast RPI-CPIH wedge for both the calculation of the cost of debt index and also the indexation of the risk free rate. Companies are then exposed to the risk that the outturn wedge could be different to the forecast if there is no wedge true up. Additional financing costs associated with issuing CPIH linked debt should also be considered.

Also forecast Totex allowances would need to include an appropriate adjustment to ensure nominal costs can be recovered.

We consider that any mechanism which relies on an expected RPI-CPIH wedge without a true up mechanism has the potential to be materially inaccurate, and compromise NPV neutrality. Forecast CPIH trued up for actual CPIH would be the simplest mechanism. Ofgem has both MOD and TRU as annual true-up mechanisms already.

→ **Question 35:** We welcome views on our approach to highly anticipatory investment projects. We are interested to hear whether stakeholders would suggest additional processes or regimes for facilitating such investments that support the energy system transition whilst protecting consumers from potentially inefficient investments.

We continue to support a process for highly anticipatory investment proposals similar to the Electricity Networks Strategy Group (ENSG) where a panel including Ofgem, BEIS and the relevant local government assesses whether the investment can be justified on the information available at the time.

→ **Question 36:** We welcome views on the type of issues that should be considered through an inter-institutional group.

Whilst the Government has set out an ambition for net carbon zero by 2050 there are a significant number of pathways to deliver this outcome.

The role of an expert group including BEIS, NIC and CCC to develop working level and cross industry targets to deliver this outcome is important to ensure UK plc delivers it in the most efficient way possible.

The UK's future heat, transport and power needs should be fully considered to ensure an optimal outcome for the public is delivered.

→ **Question 37:** We invite stakeholders to advise what type of expenditure they believe should be subject to alternative arrangements for sharing risk, and what these arrangements may look like.

Sharing factors for totex are an important part of the energy network sector regulatory regime. As well as being important to the incentive properties of the regime, they are also important in determining the balance of risk and reward between companies and customers.

The strength of the sharing factor will be critical to incentivising high performance, and thus we believe Ofgem is wrong to reduce these rates from RIIO-1. There is good reason for setting higher incentives rates (i.e. above 50%): it drives companies to seek efficiencies that reduce costs in the current price control and which are then used to set baselines for future price controls. This leads to enduring lower costs for consumers. Setting sharing factors too low weakens the incentive to find efficiency improvements and cost savings; and ultimately prices for consumers will be higher.

In RIIO-2 Ofgem has proposed to set cost allowances on a high-confidence and low-confidence basis. At this stage, it is not clear how Ofgem will determine which costs are high-confidence and which are low-confidence.

As we mentioned earlier Ofgem has a rich data set of historical costs for the networks which it should use and build on, but one of the significant issues is volumes of work going forwards.

Maintenance and upkeep of the existing assets must be accepted as a given to ensure the network remains fit for purpose. Ofgem already holds DNO data for the first half of RIIO-ED1 which it can use for core elements of expenditure.

However, as set out in response to question 28 there is some uncertainty over the volumes of reinforcement that are likely to be required in electricity distribution which will be highly influenced by any future electric vehicle and/or heat policy. Similarly changes to cyber security standards could mean that historical expenditure is an inaccurate measure of what is needed going forwards. In addition customer requirements and needs are likely to differ going forwards and it is important these are considered at a granular level on a network by network basis. Hence, it is difficult to understand the role of high-confidence and low-confidence costs and how these then interact with all of the additional incentives proposed for RIIO-2. Essentially, accuracy of forecasts and the need to incentivise efficiency are not related in the way that Ofgem's high-confidence/low-confidence approach implicitly assumes. Ofgem risks de-incentivising companies through a flawed logic.

### **Driving efficiency through innovation and competition**

→ **Question 38:** We welcome views on the proposed innovation stimulus. We are interested to hear views on the types of projects that should be funded through either the NIA funding or a new funding pot.

We agree that projects should focus on the longer-term energy system transition and consumer vulnerability.

The electricity industry has collaboratively developed the ENA Electricity Network Innovation Strategy, which sets out five key themes built from industry trends for innovation. This should be used to support the key areas of focus for funded innovation projects.

Projects must support the net zero by 2050 requirement – key focus areas should be the continuing decarbonisation of heat and transport, and the provision and facilitation of data to third parties to support their needs.

There should be a spread across a wide range of technology readiness levels (TRL), specifically between 3 and 8, to enable both higher TRL projects, 6-8, to be delivered with

the aim of supporting in period business as usual (BaU) roll-out and lower TRL, 3-5, to generate knowledge and learning to be built on and developed to facilitate BaU roll-out in succeeding periods.

Greater focus should be given to projects supporting whole system solutions, both in terms of electricity and gas and electricity distribution and transmission, where the most efficient and effective solutions to carbon reduction and affordability for consumers can be trialled, specifically in relation to the 'new funding pot'.

Both technical and commercial solutions to challenges should be facilitated through the funding streams. This should include the ability to both develop new solutions and significant enhancements and developments to existing solutions.

→ **Question 39:** How can the benefits of the innovation stimulus be maximised by supporting schemes proposed by non-network parties?

Access to current funded innovation stimulus for third parties is currently well managed through DNOs' individual NIA Third Party calls, through ENA's Innovation Collaboration Portal and the collaborative call for annual NIC bids, managed through ENA. This has to date shown significant benefit to the current innovation stimulus, within which WPD has seen 10 NIA projects registered and OpenLV, an NIC bid and delivered by EATL, awarded.

The current innovation stimulus has significantly benefited from non-network / third parties to date and this has centred on the design, development and implementation of both technical and commercial solutions – this is evidenced by WPD's third party spend on NIA in 2018/19 being 96% (£4.02M) of the total spend.

Non-network parties working collaboratively with DNOs and other network parties enables innovative solutions to be developed, often taking learning from other industries and sectors with the network operator facilitating the network and system knowledge to enable successful implementation.

Future innovation stimulus, specifically focussing on large scale projects, could benefit from a certain level of mandated non-network party led bids, building on the current NIC requirement to demonstrate that a third party call has taken place. This would encourage a greater level of collaboration between network and non-network parties and provide confidence to non-network parties that proposals would be taken forwards.

Building on the current NIA requirement that a minimum of 75% of spend is with third parties, this could be extended to a certain percentage of non-networks led projects, where it can be demonstrated they were as a result of a call or other proposal.

→ **Question 40:** We also welcome views on our proposals for the different competition models in RIIO-ED2, and what, if any, criteria should be set out for the use of early or late stage competition models.

We believe that the combination of our current processes of tendering out major construction projects and the progress we are making in seeking the use of third party flexibility as an alternative to asset solutions significantly addresses the concerns in this area.

→ **Question 41:** We also seek input from stakeholders on how native competition obligations and best practices can be used to ensure the best outcomes for consumers and to drive changes in the role of the networks in a transforming energy system.

We agree that best practice should be identified and shared to ensure the best outcomes for customers. Where best practice is not adopted, DNOs should justify the reasons.

### **Forecasting and scenarios**

→ **Question 42:** We welcome views on our approach to planning, forecasting and scenarios for RIIO-ED2. In particular, do stakeholders have other suggestions as to how we can best manage forecasting risk for consumers?

WPD has used scenario based forecasting for a number of years to build up a regional picture of the investment required on our network. The main uncertainty around these forecasts are to do with technology adoption and uptake. Scenario planning should provide an understanding of the total range of outcomes and business plans should be developed to ensure the full range of scenarios is able to be delivered. Uncertainty mechanisms should be in place within RIIO2 to ensure investment aligned to those uncertain elements is possible. The balance between volumes within the price control and those captured under uncertainty mechanisms should recognise that volumes under the latter will inherently be more costly to achieve and may lead to inefficient long-term strategic delivery.

To ensure we manage forecasting risk across the industry for all customers it is sensible for participants to align their base forecast models. Within WPD we share base assumptions used by National Grid as part of their Future Energy Scenarios modelling. This adds a level of consistency between transmission and distribution elements and also allows easy cross-referencing at the network boundaries.

### **Business plan and Totex incentives**

→ **Question 43:** We welcome views on our proposal to remove the early settlement process for RIIO-ED2, instead focusing on alternative mechanisms to receive high-quality and ambitious business plans.

The early settlement process encouraged networks to have open and transparent engagement with their stakeholders early in the RIIO-ED1 process and was a key element of Ofgem's proportionate assessment. Ofgem's declared intention was that their approach to assessing business plans would vary according to (a) the quality of the business plan submitted and (b) the network company's performance in delivering outputs and value for money in previous periods. This was recognised as being successful in RIIO-ED1 by Ofgem in their 'Guide to the RIIO-ED1 electricity distribution price control' document, in which they state that 'the possibility of being fast-tracked inspired the DNOs'.<sup>18</sup>

Ofgem also stated that proportionate treatment would enable them to 'focus effort where it is most needed while allowing those network companies that provide well-justified business plans to spend less time focussed on Ofgem's price control review and more time on running their business'.<sup>19</sup>

<sup>18</sup> "Guide to the RIIO-ED1 electricity distribution price control", *Ofgem*, January 2017, para 1.10

<sup>19</sup> "Handbook for implementing the RIIO model", *Ofgem*, October 2010, para 8.7

Whilst the introduction of alternative mechanisms could look to deliver financial incentives for business plans, as long as they are clearly understood, it is not clear how they will assist Ofgem with the proposed proportionate treatment followed in RIIO-1 that enabled Ofgem to focus on specific areas of the price control submissions, and companies with good business plans to focus on running their businesses.

→ **Question 44:** We also welcome views on our proposals to use the Business Plan Incentive and the confidence-dependent incentive rate arrangements for RIIO-ED2. In line with this, we are interested to hear stakeholder views on the range that should be used for both of these.

Ofgem's proposals for a Business Plan Incentive are reliant upon cost comparisons at a detailed and disaggregated level. It is unclear how any Totex cost assessments will factor into the Business Plan Incentive assessments for high confidence and low confidence costs areas. Furthermore the removal of IQI and the associated interpolation (where licensees were given allowances based upon 25% of their own forecasts and 75% of Ofgem's view), places a greater reliance upon the accuracy of any cost benchmarking carried out by Ofgem.

It is unclear how the proposed cost assessment framework set out in the consultation will be combined with the other building blocks of the emerging RIIO-2 price control, in particular the Business Plan Incentive (BPI). This is not discussed in this consultation. The interaction of cost assessment tools with the BPI needs more formal acknowledgement and we would request that Ofgem provides further information on the mechanics of how the two will interact in the RIIO-2 framework in order to provide transparency in this area of ambiguity. Understanding how Ofgem intends to assess the confidence they have in their own "ability to independently set a baseline allowance" and how the proposed cost assessment framework aligns with the assessment of low- and high-confidence baseline costs in stage three and four of the BPI is important in order that companies can fully appreciate the proposed incentive structure. This consideration is fundamental to ensuring that the balance of risks, rewards and incentives in the price control work in unison.

[Please also refer to WPD Response to Ofgem's Cost Assessment, August 2019.]

## **Fair returns and financeability**

→ **Question 45:** We welcome stakeholder views on our proposals to introduce measures to enable network companies to finance their activities whilst ensuring they receive a fair return.

[Please refer to WPD's response to CSQ81, in paragraphs 3.3.6 to 3.3.8, and 4.2 in our 'WPD Response to Ofgem RIIO-2 Sector Specific Methodology Consultation,' 14 March 2019.]

## **Financing**

Ofgem has contended throughout the development of the RIIO-2 price control that energy networks are low risk and should therefore be a low return industry. WPD disagrees. Ofgem itself has highlighted the risks associated with the industry through its approach to RIIO-2. Specifically, Ofgem has committed to reducing the price control period from eight years to five, primarily due to the ever changing, unpredictable nature of the energy industry. By highlighting the volatility of the energy sector, Ofgem must accept that in



fact, it is not a low risk environment in which energy network companies are operating, with each sector having a different risk profile based on future challenges e.g. electric vehicles and electrification of heat for ED, and as such, they should be rewarded/incentivised accordingly. Contrary to this, Ofgem is moving the industry ever closer towards developing a price control that leaves energy network companies with a real risk of becoming unfinanceable.

We remain of the view that Ofgem should fully consider its statutory duty to ensure the financing of licensees. Ofgem appears to regard a financeability test as a trigger for action by shareholders, rather than a critical cross check of whether the expected cost of equity is sufficient.

In the short term, financeability risks are masked by Ofgem's decision to move from RPI to CPIH indexation of the regulatory asset value (RAV), since this will increase current revenues and reduce future revenues. However, this move is a one-off cash flow benefit that will dwindle over time with lower RAV growth. The underlying issue is that in the long-term a 4% CPIH real cost of equity may challenge companies' current investment grade credit ratings and therefore financeability.

Ofgem's principal proposal to address the financeability risk is what it calls a Liquidity Based Cash Flow Floor. This is only a temporary solution as any Cash Top-up payments will eventually need to be repaid by the company at an interest rate equal to the WACC. It does not address the long term financeability problem created by Ofgem's downward step in the cost of equity and has already been recognised by the largest rating agencies as largely negative.

The key to resolving any financeability risk should be to encourage equity investment through a realistic cost of equity. The cashflow floor does the opposite of this by widening the circumstances in which a dividend lock-up may occur.

→ **Question 46:** We are interested to hear from stakeholders on how they believe we should set allowances for the cost of debt, particularly around the method of recalibrating the index.

The index used for RIIO-ED2 needs to be well calibrated to capture the true debt costs of an electricity distribution company. This needs to take into account expected credit rating, capital requirements, maturity profiles, transactions costs and liquidity costs.

In RIIO-ED1, WPD has seen significant under performance to date against the cost of debt allowance and we are forecasting for this to continue for the remainder of the price control period. This is mainly due to the inappropriate trailing average period being set by Ofgem and shows that the 10 year trailing average fails to capture the true debt costs of the company. This underperformance would have been less material if WPD had been awarded the 20 year trombone profile as used by the slow track companies.

In order to address this underperformance, Ofgem needs to consider:

- The trailing average period needs to encompass more historical debt issuances which were efficiently raised;
- The weighting of the iBoxx A/BBB index should be reflective of a company's rating. It is probable that there should be more weighting towards BBB, particularly if the RIIO-ED2 settlement is likely to have a negative impact to ratings due to the financeability issues it has raised.

→ **Question 47:** We also welcome views on our proposed approach to setting allowances for the cost of equity, as well as our proposal to move away from RPI.

Under RIIO-2 Ofgem is proposing to make substantive changes to the overall return. Of key concern are:

- a) **The reduction in the allowed return on equity from 6-7% to 3% (expected return 3-4%) (RPI real, post-tax):** the magnitude of the proposed reduction in the cost of equity lacks justification. Ofgem refers to the cost of equity as the expected return in RIIO-2.
- b) **The distinction between the Expected Return (ER) and the Allowed Return (AR):** Ofgem argues that there is a gap between companies' expected returns (ER) and their allowed returns (AR), which justifies a reduction in allowed returns. Not only does the way in which the differential has been calculated lack rigour, but also, and more importantly, the entire proposal lacks justification.

Reduced levels of returns will inevitably have a knock-on impact on incentives to invest with adverse consequences for consumers.

As discussed in our response to the sector specific consultation in April 2019, the switch away from RPI to CPI or CPIH is acceptable provided that it is done in a way that ensures NPV-neutrality.<sup>20</sup> It is not appropriate for Ofgem to rely on the switch from RPI to CPI/CPIH to improve the financeability of the RIIO-2 package or to justify lower allowed returns. As in our answer to question 34, Ofgem is yet to fully justify the NPV neutrality of the switch from RPI to CPIH over the long run.

### Return adjustment mechanisms

→ **Question 48:** Finally, we would like to hear stakeholders' views on our proposed introduction of a 'sculpted sharing factor' in instances of high out- or under-performance, or whether an alternative mechanism could be more effective.

[Please refer to para 5.49 to 5.52, 'Fair Returns' in our 'WPD response to Ofgem's consultation on RIIO-2 Framework', 2 May 2018 and Section 4.4, 'Allocation of risk and reward' in our 'WPD Response to Ofgem RIIO-2 Sector Specific Methodology Consultation', 14 March 2019.]

The use of a 'sculpted/RoRE sharing factor' would simply dampen incentives for companies to seek efficiencies under the price control. Ofgem says it has the potential to simplify the price control arrangements by replacing the need for IQI, fast track and (presumably) TIM processes. However, if it were to replace these other schemes, Ofgem would also lose control in fine tuning different incentives for different aspects of the settlement.

However, if concerns remain, development of a deterministic and symmetric RoRE sharing factor would be the correct approach (i.e. the cap and collar should be an equal distance from the estimated cost of equity). Ofgem would need to be careful to ensure that any sharing factors were both fully symmetric on the upside and downside, and that incentives for performance remained with the company for all levels of out-performance or under-performance. This points to the need to increase (for example) totex incentive rates, if a return sharing mechanism is to be introduced.

<sup>20</sup> WPD Response to Ofgem RIIO-2 Sector Specific Methodology Consultation, 14 March 2019, para 5.2.74