

Response to Ofgem's Consultation on the
RIIO-2 Framework
By Western Power Distribution ("WPD")

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1 Executive Summary

- 1.1 This document sets out Western Power Distribution's (WPD) response to Ofgem's consultation of 7th March on the RIIO-2 Framework (the Consultation).

RIIO-ED1 is delivering good outcomes for consumers (Section 3)

- 1.2 The appropriate starting point to assess the need for any changes to RIIO-ED2 is to consider the performance of distribution network operators (DNOs) in RIIO-ED1. This is particularly important as in establishing ED1 Ofgem was able to learn lessons from its earlier implementation of RIIO in gas and electricity transmission and in gas distribution.
- 1.3 Definitive conclusions cannot be drawn now in relation to ED1 as it is only two years into the eight-year price control. However, ED1 has performed well so far and is on course to deliver its objectives. All the DNOs are performing well against their ED1 outputs and associated incentives:
- Total expenditure across DNOs generally is forecast to be closely aligned with allowed expenditure for the price control period.
 - While lower than expected demand and delayed investment has resulted in a slightly higher underspend for UKPN, current estimates do not account for adjustments during the close out of ED1. In any case, there is a specific price re-opener as regards UKPN's main area of underspend, which could reduce its revenues and its returns.
 - The slightly higher forecast rate of return on equity (RoRE) for DNOs, above the allowed RoRE, is largely driven by out-performance against targets that have resulted in rewards under the various incentive schemes (principally the interruptions incentive scheme, IIS), which directly benefits consumers. It should also be noted that Ofgem's presentation of RORE is currently incomplete, since it includes a cost of debt allowance rather than our actual incurred cost of debt. Adjusting for this WPD's RoRE for 2016/17 was 6.5%, as presented in our recent proposal for RIIO accounts.¹
- 1.4 In short, there is no evidence of excessive returns under ED1, but instead rewards for high performance. Moreover, expected returns under ED1 are significantly lower than under the previous price control regime (DPCR5). Against

¹ <https://www.westernpower.co.uk/About-us/Stakeholder-information/RIIO-Accounts.aspx>

this background, we see the priority in ED2 as building on ED1, rather than fundamental change.

The focus of RIIO-ED2 should be on building on the success of RIIO-ED1, and having close regard to principles of good regulation (Section 4)

- 1.5 A key purpose of any price control regime is to seek to replicate the competitive pressures and incentives that exist in competitive markets. This is captured in the acronym, RIIO, such that network operators' Revenues (and profits) should depend on Incentives (rewards for good performance), Innovation (improving how the business functions) and Outputs (delivering what customers need). The framework is thus designed to incentivise cost efficiency and innovation to deliver high quality services to consumers at a reasonable price. This focus on consumers naturally highlights the importance of stakeholder engagement, so that outcomes reflect consumers' preferences. In addition, a key aspect of such incentive-based regulation is that companies retain some of the benefit from high performance.
- 1.6 Returns also need to be commensurate with the risk that companies face due to regulatory structures. Investors value stability in the regulatory regime and the minimising of regulatory risk. This is particularly important given that energy networks are capital intensive, with increases in regulatory risk increasing the cost of capital and thus prices to consumers. While it is not possible (nor desirable) to control for all risks, it is important that regulatory intervention does not create asymmetric risk by removing potential upside risk for network companies.
- 1.7 Risks that the company has some ability to manage are best left largely with the company and reflected in the incentive structure embedded in the RIIO framework. Those that the company is less able to control should be allowed to be passed on, to some extent, to customers. However, consumers also value stability in charges, and thus price volatility should be avoided where sensible.
- 1.8 Where companies do bear risk, this must be compensated. Ofgem cannot impose low returns while simultaneously demanding material risk bearing, particularly where such risks are asymmetric. Asymmetric risks can arise depending on how charges vary with costs, and if there are any systematic biases in the measurement of key costs, such as the cost of equity and debt or how input costs vary with inflation.
- 1.9 Simplicity in price controls is also desirable, so that companies have clarity and certainty as to how the price controls will work and incentives to deliver high performance are maintained.
- 1.10 Finally, these regulatory principles should thus ensure that reasonably efficient operators are able to finance their activities, including long-term capital investment. This is obviously important both from the perspectives of investors and to ensure that networks do not face financial distress.

The application of the core principles of good regulation (Sections 5-6)

The price control "in the round" and the scope for market competition

- 1.11 WPD considers it is important that the price control regime is considered "in the round" – i.e. holistically across the overall balance of risks, rewards and incentives. Accordingly, we look forward to engaging constructively with Ofgem on its full, detailed plans, to ensure that adverse unintended consequences do not arise.
- 1.12 In connection with developing the price control in the round, we agree with Ofgem that: (i) there is scope to improve customer engagement; (ii) there needs to be a whole system approach (covering distribution, transmission and system operators); and (iii) incentive schemes should be refined and developed (such as the IIS). We look forward to working with Ofgem on these matters going forward.
- 1.13 One issue that should also be addressed at the outset is the scope for market competition. WPD reads the Consultation as suggesting that there may be more scope for market competition to develop, particularly as regards large, standalone transmission projects. However, it is important to be clear that distribution is different from transmission in this respect. In distribution, there are few separable investments of £10 million or more that are not embedded in the existing network. Moreover, even the largest of these projects tends to be substantially smaller than the £100 million threshold proposed by Ofgem, meaning that they would not meet the high value requirement. The vast bulk of distribution capital expenditure relates to non-separable investment in the renewal and replacement of embedded assets. These embedded investment projects must be approached in a holistic way to ensure that an integrated network approach is taken.
- 1.14 It is also important to appreciate that there is already substantial competition for new capital expenditure projects in electricity distribution. The DNOs already put investment projects out to tender with third parties. In addition, there is also already substantial competition in new connections from independent DNOs.
- 1.15 Accordingly, subject to understanding more precisely what is proposed by Ofgem for electricity distribution, it is WPD's view that competition in distribution has already driven efficiencies, and further competitive tendering would not yield benefits that outweigh the associated costs.

An eight-year price control should be applied in ED2

- 1.16 Extending the period of the price control to eight years has contributed to (and continues to contribute to) the success of ED1. When the longer price control period was introduced in 2010, the potential benefits were considered to outweigh the potential risks.

- 1.17 With data from only two years of the ED1 price control, it is too early to fully evidence the benefits of an eight-year period. However, we consider that the longer period has already yielded significant benefits for consumers by allowing DNOs more time to apply leadership focus on how work programmes will be delivered, to innovate and to more effectively manage and resource changing business needs. Under five-year price controls, where some two to three years are spent making submissions on future price controls every five years, management focus on consumer outcomes will be reduced.
- 1.18 Moreover, the rationale for shortening the price control period seems to rest on the idea that network companies are enjoying higher than expected returns. However, as noted above, there is no evidence of excessive returns across DNOs related to the design of ED1, but instead returns are being driven by out-performance (in line with the intended goal of incentive-based regulation). Therefore, rather than introducing a fundamental change in the duration of the price control at this early stage, it would seem more appropriate to wait at least until the end of ED1 (and more appropriately until the end of ED2) before attempting to determine the effectiveness of the 8-year price control.

The Information Quality Incentive and fast-tracking should be retained

- 1.19 Turning to DNOs' incentives to submit high quality business plans as part of ED2, we believe that two specific aspects of RIIO-1 focussing on this issue should be retained. First, we believe that the principles of the Information Quality Incentive (IQI) are sound – companies should be rewarded for delivering to their forecasts and for achieving costs in line with efficient baseline cost assessments. The fact that some DNOs have achieved lower costs than forecast, despite the incentives provided by the IQI, does not mean that IQI incentives are unimportant.
- 1.20 Similarly, Ofgem's concerns over establishing an efficient baseline are unfounded. Whilst there may be challenges in establishing an appropriate baseline forecast for networks with few companies (as is the case for transmission), this does not hold for distribution. In electricity distribution there is certainly sufficient scope to benchmark companies to allow Ofgem to determine an efficient baseline.
- 1.21 Similarly, fast-tracking of the best business plan has created valuable benefits for consumers in distribution, as confirmed by CEPA. Key to the success of distribution fast-tracking was having a sufficient number of companies to compare, which allowed Ofgem to form a view of where the fast-track threshold should be placed.

Indexing of RPEs could bring greater accuracy to forecasting cost allowances

- 1.22 The inclusion of real price effects (RPEs) in the setting of cost allowances has also been an important part of RIIO-ED1. While cost allowance forecasts have been reasonably accurate in RIIO-ED1, the underspends in GD1 and T1 have

been created in part by RPEs. This suggests that some form of re-calibration would be appropriate for RIIO-2. In this regard, annual indexing of RPEs could be helpful in bringing greater accuracy to cost allowances with respect to both over and under performance. The main consideration for this proposal is selecting an appropriate, representative index that protects both customers and companies. We disagree with Ofgem's suggestion that RPEs could be set at zero (paragraph 6.28 bullet three), because this will provide no protection to companies in the event of increased RPEs.

Relative performance schemes create uncertainty and risk, and undermine incentives

- 1.23 Ofgem's proposals to introduce competition through relative performance measures would be wholly contrary to the objective of simplifying RIIO. In principle, we have no objection to absolute targets being set at the start of a price control that are based on the relative performance of DNOs. However, Ofgem's proposals for relative performance schemes would create uncertainty and undermine the core performance incentives of the RIIO regime.
- 1.24 Relative performance targets that move within a price control do not provide certainty of outcome at the time of decision making and hence are likely to drive the wrong behaviour. Where targets are reset within a price control period (e.g. to the upper quartile) outperformance incentives are likely to be muted, if outperformance in the early part of the price control period would contribute to tightening of output targets or reductions to allowed revenues mid-way through the period. Relative performance schemes also expose all companies to errors made in setting the targets of other companies and create additional risks for companies when affected by idiosyncratic shocks that are beyond their control. The additional uncertainty of such schemes and the risk associated with targeting errors would concern investors and need to be compensated for through a higher cost of equity. This cost would ultimately be borne by consumers through higher prices.
- 1.25 Moreover, relative performance schemes, such as the fixed incentive pot and zero-sum incentives options outlined by Ofgem (paragraphs 7.132 and 7.133), create a very real risk of making the less well performing companies unfinanceable when the penalties reduce their RoRE below the cost of equity.

CEPA's estimates of the total market return and asset Beta are materially flawed and should be reviewed

- 1.26 Ofgem propose a reduction in the regulatory cost of equity from 6% (6.4% for fast track) in RIIO-ED1 to 3-5%. As demonstrated by NERA (see Annex 1), we believe the estimate should be higher, due to errors made by CEPA in estimating the total market return (TMR) and erroneously benchmarking the asset Beta.
- 1.27 CEPA's interpretation of the Competition and Market Authority's (CMA) Northern Ireland Electricity (NIE) decision as supporting a TMR in the range of 5 to 6.5%

is flawed. Although the CMA cited 5% as a lower bound in its report, it concluded that the evidence for a TMR of 5% was not well-supported, and the weight of evidence supported a TMR range between 5.5% and 6.5%. In addition, given that only the Bank of England Dividend Growth Model (DGM) approach supported the lower bound of 5% at NIE 2014, and updated studies from the Bank of England support a value of 7 to 8%, CEPA's 5% lower-bound does not represent a reasonable application of the CMA NIE 2014 approach for RIIO-2. CEPA's own estimates on the TMR are also substantially below independent estimates.

- 1.28 In addition, CEPA's estimates of the asset Beta rely on market evidence during the financial crisis when Betas for utility companies were at historical lows. This data is not reflective of the current market context. Moreover, CEPA's use of the water companies and the entirety of National Grid (including its lower risk US businesses) as comparators to estimate the asset Beta for electricity distribution is inappropriate. Different risk profiles of the water industry and the lower risk associated with the National Grid's US assets distort their analysis and result in the asset Beta for electricity distribution being understated.

Indexation of the cost of equity is not necessary and would be likely to create instability in the measured cost of equity

- 1.29 Given the above comments relating to the importance of the cost of equity being calculated robustly and the fact that investments in the network industries are long-lived, we consider that there should be stability in the cost of equity applied. Accordingly, when setting the cost of equity it is important that a long-term perspective is adopted.
- 1.30 In this regard, it is striking that neither Ofgem nor its adviser CEPA has discussed whether annual indexation of the cost of equity is superior to setting a fixed ex-ante allowance, but have focused their initial analysis on the mechanism by which cost of equity indexation might occur.
- 1.31 While the cost of equity is largely outside management control and forms a material proportion of the company's total costs, we do not consider that the cost of equity varies sufficiently annually such that Ofgem is unable to set a reasonable cost of equity allowance for the whole RIIO-2 price control period. The cost of equity is not as volatile as individual parameters that form the calculation and indeed there is constancy in the TMR over time. As such, we see no reason to index the cost of equity annually. Moreover, consumers would potentially suffer from greater volatility in prices if the cost of equity is indexed. Indexation increases our concerns relating to Ofgem's overall proposals relating to the cost of equity as both the starting figure of the cost of equity (as estimated by CEPA) is flawed *and* artificial volatility in the cost of equity would be introduced (depending to some extent on the precise method of indexation adopted, with this being considered below).

- 1.32 While we do not support the idea of indexing the cost of equity, of the three options provided by Ofgem we consider that the only potentially viable option is to index the TMR and the risk-free rate (RFR), i.e. the third option, since this is the most accurate and objective method for indexing changes in the cost of equity. That said, the specific index and its interpretation (e.g. in terms of averaging techniques) would need to be clearly specified in advance. We believe that it should be based on long run historical averages to provide the stability that would be important for both the company and consumers.

The transition to CPI must be carefully managed

- 1.33 Any change in the inflation index used for price setting purposes should be neutral in net present value (NPV) terms. However, the transition process has the potential to create unanticipated costs for DNOs.
- 1.34 A key risk arises where DNOs hold RPI index-linked debt (ILD). A switch from Retail Price Index (RPI) to Consumer Price Index (CPI) indexation results in the loss of the natural RPI hedge for networks financed with RPI ILD. In order to mitigate the risk associated with the loss of RPI hedge for RPI ILD, we recommend a transition arrangement whereby at least 25% of RIIO-2 opening regulatory asset value (RAV) is linked to RPI (reflecting the current extent to which DNOs' existing debt is linked to the RPI), with the remaining linked to the Consumer Price Index including housing costs (CPIH), in order to preserve the natural hedge.
- 1.35 For any change to be value neutral to investors (i.e. no change in present value of net cash-flows), in addition to the adjustments to the allowed return and forecast real total expenditure (totex) allowances, Ofgem would also need to recognise any additional costs associated with any change to the index, e.g. in relation to hedging or debt financing costs.

The current estimates of the cost of equity raise serious financeability issues and should be reviewed

- 1.36 Our view, which is informed by NERA's analysis (see Annex 2), is that financeability concerns should not arise if the price control scheme works well in the round. However, we have significant concerns over the impact of a reduction in the regulatory cost of equity (based on the flawed estimates of TMR and the asset Beta set out above) on the financeability of the sector. The solution is simple: Ofgem should revisit CEPA's analysis of the cost of equity.
- 1.37 As Ofgem acknowledges, short-term fixes, e.g. bringing forward cash-flows as under option B, do not resolve the underlying issue and will simply defer financeability issues to subsequent review periods. In addition, any arbitrary changes to regulatory levers (e.g. capitalisation rates) may not be recognised by rating agencies, and therefore may not improve financial metrics.

- 1.38 One of Ofgem's other proposed fixes, moving to a nominal WACC (option A), represents a fundamental change to the regulatory framework and raises wider policy issues, by raising short-term bills and issues of inter-generational equity.
- 1.39 In relation to option C, Ofgem proposes to provide minimum debt cover based on notional capital structure and notional cost of debt. There is no provision for companies' actual capital structure or actual debt costs, so the provisions may have little value to creditors. Ofgem also intends that any advanced revenues are recovered over future years: this approach simply defers financeability issues to subsequent years.

Conclusions

- 1.40 We are keen to ensure that ED2 is successful and is seen to be successful. We therefore wish to engage with Ofgem in a constructive dialogue both in the context of this consultation and more broadly to achieve this.

2 Introduction

- 2.1 In Western Power Distribution's (WPD) view, RIIO-1 has worked well and should continue to form a critical part of the new framework, with refinement being appropriate given market and industry developments. Naturally, we speak from the perspective of a Distribution Network Operator (DNO). As we show in Section 3, the core of RIIO-ED1, and the incentive structure it set up under an eight-year price control period, is working well. RIIO-ED1 is delivering the right behaviours from the distribution network companies. One requirement of the RIIO-2 framework will be to ensure that it continues to incentivise the right behaviours in the context of the continuing evolution of the energy system.
- 2.2 RIIO-2 will, however, need to look again at some areas. RIIO-2 will take place in the context of continuing energy sector change, and inevitably, uncertainty over the pace of change. Uncertainty for network capacity requirements will occur from many sources: for example, what will be the take-up and usage of electric vehicles; how much more embedded generation will be installed; and will consumer behaviour change as a result of smart meters? Network capacity requirements, and consequently cost forecasting, will inevitably become more complex. This suggests that uncertainty mechanisms will be required to address these issues.
- 2.3 The energy sector is also changing with blurring boundaries and different interactions between distribution and transmission networks, different types of producers and consumers, and evolving network and non-network solutions to meeting demand for electricity and achieving environmental objectives. This underlines the need for RIIO-2 to be looked at across all sectors - as a whole system framework.
- 2.4 Given the uncertainty that will result from the energy transition, one of the most important areas of RIIO-2 will be understanding the risk that is placed on network companies, and how this is reflected in the return that companies earn (or can expect to earn) on delivering outputs and achieving their targets. In doing this, it will also be important to look at how perceived "excessive returns" are in fact the result of genuine outperformance that will ultimately work towards meeting the RIIO objectives and benefiting consumers. Without the possibility of higher returns, the incentives on companies to improve services and increase efficiency are significantly diminished. RIIO-2, therefore, needs to look at how the incentives have worked and whether companies have been appropriately rewarded or penalised for their performance during RIIO-1. In Section 4, therefore, we discuss the underlying principles that Ofgem needs to consider to ensure that any refinements to RIIO-1 do not undermine the tenets of the RIIO framework.

- 2.5 With these principles in mind, we identify in Section 5 the key elements of the options and proposals in the RIIO-2 framework consultation that we believe are inappropriate for the electricity distribution industry.
- 2.6 We provide more detailed responses to the questions posed in the Consultation in Section 6. Supplementary research from NERA Economic Consulting that feeds into our view on the cost of equity and financeability is included in Annexes 1 and 2 respectively.

3 RIIO-ED1

Summary

RIIO-ED1 has performed well in its first two years and is on course to deliver its objectives. All the DNOs are performing well against their RIIO-ED1 outputs and associated incentives.

An underspend of 4.6% across all DNOs is forecast for RIIO-ED1. However, this is largely driven by UKPN, which has experienced substantially lower than expected demand. When UKPN is excluded, actual total expenditure across DNOs is broadly consistent with allowed expenditure.

The average rate of return on equity (RoRE) for DNOs (beyond the allowed RoRE) is expected to be significantly lower under RIIO-ED1 than the previous price control. Moreover, the additional RoRE has, to date, largely been driven by out-performance under the incentive schemes. Across the sector as a whole, there is no evidence of excessive profitability.

In light of the success of RIIO-ED1 so far, the focus for RIIO-ED2 should be on refinement, not fundamental change.

Introduction

- 3.1 Ofgem's Consultation suggests that there is a need for a number of substantial changes to the RIIO-ED1 framework, and that this need for change applies across all energy network businesses. It is striking that these points are often expressed in the Consultation in general terms without referring to specific price controls. For example, the Consultation asserts that:

*"Returns across companies have been higher than we expected and do not reflect the low level of risk these companies face."*²

- 3.2 A specific element of Ofgem's concern is that network companies are receiving financial benefits due to forecasting errors. As described in this Section, it is far from evident at this stage that DNOs will earn excessively high returns; in fact, the data for the first two years of RIIO-ED1 suggests most DNOs are delivering good outcomes in terms of efficiency and customer benefits.
- 3.3 Notwithstanding this, the Consultation envisages an array of potential changes to RIIO-ED1, which will constrain the returns that network companies can earn. As discussed in Section 5, a number of these are very likely to increase regulatory risk in an asymmetric manner (and this increase in risk will increase the cost of capital), whilst at the same time undermining the incentive properties of the regime that benefit consumers. Proposals such as indexation of cost of equity will increase the risks borne by consumers by increasing the volatility of charges. As the Consultation observes:

² Ofgem, "RIIO-2 Framework Consultation: Our approach to setting price controls for GB gas and electricity networks" (the Consultation), March 2018, page 5.

*"When companies profit from delivering excellent service or finding new and innovative ways of reducing costs, consumers benefit too because the gains are always shared and they get better service."*³

3.4 Accordingly, a natural place to start is to review the performance under RIIO-ED1 and to ask whether definitive (negative) views can be reasonably reached as to RIIO-ED1 at this juncture. In WPD's view, RIIO-ED1 is performing well and there are no substantive issues for the reasons set out in this section.

3.5 It is important to appreciate that the final determinations for the RIIO-ED1 price control review were only published by Ofgem in November 2014, and the process of agreeing the final settlements took three years. Moreover, RIIO-ED1 was able to benefit from the lessons learned under RIIO-T1 and RIIO-GD1 that had been conducted two years earlier. As stated by GEMA:⁴

"The Authority drew on the experience it had gained from those processes to inform its approach to the design and implementation of RIIO-ED1."

3.6 RIIO-ED1 was the first review in electricity distribution to use the RIIO model, but some of the RIIO principles were already being developed and implemented in DPCR5 (for example, Network Output Measures were defined, and company delivery of those outputs was assessed). RIIO-ED1 set the revenues that the Distribution Network Operators (DNOs) are allowed to earn and the outputs they have to deliver from 1 April 2015 to 31 March 2023. To date, two years of results are available for this price control, and they suggest that RIIO-ED1 is working well. The most recent data available are for 2016/17. Their release coincided with the publication of the Ofgem consultation on the need for and scope of a mid-period review under RIIO-ED1, which Ofgem has concluded as unnecessary. It is against this backdrop that RIIO-ED2 should be reviewed.

RIIO-ED1 provides incentives that are working well in electricity distribution

3.7 As highlighted in Ofgem's Annual Report 2016-17, RIIO-ED1 is on course to deliver its objectives. Financial and reputational incentives have succeeded in motivating DNOs to improve their performance in delivering their services to customers. All the DNOs are performing well against their RIIO-ED1 outputs and associated incentives, with Ofgem observing that:

"After the second year, DNOs continue to perform strongly against five of the six output categories: reliability and availability, environment, customer service,

³ Consultation, March 2018, page 5.

⁴ Response to Notice of Appeal Energy Licence Modification, Northern Powergrid (Northeast) Limited and Northern Powergrid (Yorkshire) Plc vs The Gas and Electricity Markets Authority, 22 April 2015, paragraph 113

social obligations and safety. There is scope for improvement for the connections output.”⁵

3.8 As a result, Ofgem estimates that *“the average customer will pay £83 per annum in 2018-19 to cover electricity distribution network costs, down 3.5% from £86 in 2017-18, whilst at the same time receiving an improved service”*.⁶

3.9 This is possible because under RIIO-ED1 DNOs are becoming more efficient. RIIO-ED1 incentivises DNOs to outperform their total expenditure (totex) allowance covering both capital and operating expenditure. More efficient operators therefore earn higher returns (and customers benefit through lower network charges). Moreover, efficiency gains in RIIO-ED1 will continue to benefit customers by reducing baseline costs in RIIO-ED2.

3.10 After only two years of RIIO-ED1, DNOs are already realising efficiencies. As highlighted in Ofgem’s Annual Report (2016/17), DNOs have secured efficiency savings through securing contracts with suppliers that include strong commercial incentives to deliver efficiently, and through the application of innovative techniques.⁷ For example, DNOs have adopted innovative solutions to create efficiencies in network reinforcement. As Ofgem has observed:

“There is increased use of non-traditional solutions and flexibility services to alleviate constraints in the network, including active network management (ANM) and in the future constrained managed zones (CMZ). Another example is using dynamic rating techniques for transformers, which increased the available capacity to supply demand, deferring the need to invest in larger capacity transformers at this time.”⁸

3.11 In addition, consumer service levels are improving, with all DNOs exceeding overall customer service targets. Specifically, all DNOs have (to date) met or exceeded the target scores for customer satisfaction (which captures customers’ experience of interruption, minor connection and general enquiry services) and customer complaints handling procedures.⁹ DNOs were also found to be meeting

⁵ Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 3, paragraph 2.2.

⁶ Ofgem RIIO-ED1 Annual Report, 19th December 2017, page ii.

⁷ An example of rolling out innovation to date includes learning from techniques used in Germany to replace a gas insulated cable by using the existing pipework to install a new cable and reduce excavation costs. Ofgem RIIO-ED1 Annual Report, 19th December 2017, paragraph 4.13.

⁸ Ofgem RIIO-ED1 Annual Report, 19th December 2017, paragraph 4.16.

⁹ The industry-wide target for the customer satisfaction survey is of 8.2 out of 10. DNOs’ scores range from 8.32 (ENWL) to 8.96 (EMID). Similarly, all DNOs were below the complaints metric target of 8.33 (a low score is a good score for the complaints metric). Ofgem RIIO-ED1 Annual Report, 19th December 2017, paragraphs A2.43-44 and A2.45-47.

their social obligations through stakeholder engagement, in particular with vulnerable customers.¹⁰

- 3.12 Customers have also benefited from investment in the networks by DNOs, which has reduced interruptions. As a result, both the number and duration of interruptions has fallen by 11% since the beginning of RIIO-ED1.¹¹ Performance against the Guaranteed Standards of Performance (GSoP) for the reliability of supply has been strong too across all DNOs.¹²
- 3.13 The Time to Connect (TTC) incentive has encouraged DNOs to improve connection times for smaller less complex connections. Compared to 2013, DNOs are now issuing quotations in half the time and the average time to connect has improved by at least two to three days.¹³ Meanwhile all the DNOs performed well under the Connections GSoP, with all of them meeting or exceeding the Annual Report target.¹⁴
- 3.14 These improvements in customer service and delivery will be reinforced with ongoing investment by the DNOs. In 2016-17, the value of Network Innovation Allowance (NIA) projects registered by the DNOs increased by £14 million compared to the previous year.¹⁵ This equated to the registration of 132 NIA projects worth £19.5m.¹⁶ As set out in Ofgem's Annual Report, these investments should result in "*financial, operational, environmental and safety benefits*".¹⁷

¹⁰ Ofgem RIIO-ED1 Annual Report, 19th December 2017, page i.

¹¹ All DNOs received a financial reward under the Interruption Incentive Scheme (IIS) for their overall performance in the number of customers interrupted (CIs) and duration (CMLs) of both planned and unplanned interruptions. Ofgem RIIO-ED1 Annual Report, 19th December 2017, Appendix 2, paragraph A2.2.

¹² Ofgem RIIO-ED1 Annual Report, 19th December 2017, paragraph A2.4-A2.5. WPD in particular has virtually eliminated the number of customers affected by loss of supply for more than 12 hours by deploying more teams to respond, requiring excavation contractors to provide one-hour response and greater use of mobile generation. Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 43, paragraph A3.17.

¹³ The connection time is measured from the point at which a DNO receives the initial application, to them issuing a quotation and the time from the customer accepting the quotation to the connection being completed. Connection times have reduced by two to three working days for LVSSA connections, and by three to four working days for LVSSB. Ofgem RIIO-ED1 Annual Report, 19th December 2017, paragraphs A2.28-A2.30.

¹⁴ The Connections GSoP covers a range of activities, from the issuing of a budget estimate through to the energisation of a connection. Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 34, paragraph A2.32-A2.33.

¹⁵ The NIA is designed to fund smaller scale research, development and demonstration projects. It gives each DNO an allowance to spend on innovation projects in line with the NIA Governance Document. Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 7, paragraph 2.19.

¹⁶ Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 7, paragraph 2.19.

¹⁷ Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 7, paragraph 2.19.

3.15 A number of other developments further demonstrate the effectiveness of the RIIO-ED1 incentives:

- (a) DNOs have been investing in flood risk mitigation at 134 sub-station sites;
- (b) There has been significant investment in tree cutting programmes, which is expected to generate cost efficiencies later in the price control (for example by reducing the need for ground inspections);¹⁸
- (c) IT investment in the first two years of RIIO-ED1 is expected to improve cost efficiencies later in the price control through better data capture, recording, reporting and analysis;¹⁹ and
- (d) DNOs have implemented initiatives to improve environmental standards, which have resulted in reductions in their carbon footprints, harmful emissions and oil leakage. Reputational incentives, including establishing environmental league tables, are expected to continue to incentivise this behaviour.²⁰

Profitability in the electricity distribution sector has not been excessive

3.16 The achievement of cost savings, investment, the delivery of outputs, and high performance against service levels should deliver profits. This is the entire basis and purpose of incentive-based regulation and is the appropriate context to assess profitability. It is not economically meaningful to assess profitability in a vacuum.

3.17 Ofgem states in the Consultation that companies' returns are high compared to the low risks they face.²¹

3.18 Perhaps the first point to make when considering profitability is to note that over the first two years of the ED1 price control *on average* DNOs have achieved a 7% underspend. As indicated in Ofgem's Annual Report, in general totex underspend is driven by three capex cost categories – replacement and refurbishment of assets, network reinforcement and other operational capex costs (e.g. resilience and re-routing).²² The cost efficiencies secured by the DNOs and described above contribute to the underspend, for example through improved working practices and innovation. However, the two key drivers of this

¹⁸ For example, through investment in LiDAR. LiDAR is a surveying method that helps DNOs identify distance of trees to overhead lines using lasers, limiting the need for ground inspections. Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 28, paragraph A2.10.

¹⁹ Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 22, paragraph 4.25.

²⁰ Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 29, Table A2.2.

²¹ Consultation, page 15, paragraph 2.17.

²² Ofgem RIIO-ED1 Annual Report, 19th December 2017, page ii.

underspend are replacing and refurbishing equipment (£370m) and network reinforcement (£267m).²³ As regards these two items of underspend, the following points should be noted:

- (a) 12 of the 14 DNOs underspent on replacing and refurbishing equipment.²⁴ This expenditure has been delayed and is expected to occur later in the price control.²⁵
- (b) Ten of the 14 DNOs have underspent on network reinforcement during the first two years of the price control.²⁶ This has been largely attributed to economic conditions dampening demand for electricity, a greater impact from energy efficiency measures and uncertainty around take up of low carbon technologies. The uptake of electric vehicles and heat pumps has also been more limited than anticipated.²⁷ Once again this investment is expected merely to be delayed.

3.19 Since these costs have been deferred, Ofgem expects them to materialise later in the price control period. This will reduce the underspend to align DNOs' costs more closely to revenue allowances.²⁸

3.20 As illustrated in Table 3.1 below, this underspend in electricity distribution is significantly smaller than in gas distribution and electricity transmission. Furthermore, the average underspend by DNOs is skewed heavily by UKPN.

²³ Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 19, paragraph 4.10.

²⁴ For five DNOs, the underspend is greater than 25% of allowances.

²⁵ Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 19, paragraph 4.12.

²⁶ For seven of the DNOs underspend is greater than 25% of their allowances.

²⁷ Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 20, paragraphs 4.14-4.15.

²⁸ Ofgem (2017), "Consultation on a potential RIIO-ED1 Mid-Period Review", 1 December 2017.

Table 3.1: Data on under - and over-spends in gas and electricity under RIIO-1

	Since start of RIIO-1 ¹				Full RIIO-1 forecast ²			
	Allowance	Actual	Difference		Allowance	Actual & Forecast	Difference	
	£m	£m	£m	%	£m	£m	£m	%
Gas Transmission	1,391	1,319	-72	-5.2%	3,073	3,300	227	7.4%
Electricity Transmission	10,472	8,265	-2,207	-21.1%	18,857	17,111	-1,746	-9.3%
Gas Distribution	8,933	7,657	-1,276	-14.3%	17,621	15,511	-2,110	-12.0%
Electricity Distribution	7,111	6,580	-531	-7.5%	26,662	25,423	-1,239	-4.6%
<i>Electricity Distribution (exc. UKPN)</i>	<i>5,342</i>	<i>5,201</i>	<i>-141</i>	<i>-2.6%</i>	<i>20,131</i>	<i>19,803</i>	<i>-328</i>	<i>-1.6%</i>

Note: ¹ Cumulative figures are from start of respective RIIO period to 2016/17 Annual Report. Four years of data are available for gas distribution and transmission, but only two years of data are available for electricity distribution. Two years into RIIO-GD1 there was an average 14.6% underspend and a forecast 12.5% underspend for the rest of the price control period across GDNs.

² Forecast figures are forecast for the entirety of the respective RIIO period.

Source: Ofgem RIIO-ED1 Annual Report, 19th December 2017, table 3.1

- 3.21 Aside from UKPN, the DNOs are forecast to have relatively small underspends or even minor overspends during RIIO-ED1. UKPN's underspend is largely due to delayed investment in replacing and refurbishing equipment and lower than anticipated costs for managing network reinforcement because the forecast level of loading on the network did not materialise.²⁹ The average forecast underspend for electricity distributors is distorted by this UKPN underspend.

²⁹ Network reinforcement has been delayed by UKPN and is now expected to take place later in the price control. The delays have been, at least in part, the result of negotiating with suppliers to create a more efficient supplier network, which should ultimately benefit customers. Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 44, paragraph A3.25.

Table 3.2: RIIO-ED1 breakdown by DNO

	Forecast RIIO-ED1 (2015-16 to 2022-23)			
	Allowance	Actual & Forecast	Difference	Difference
	£m	£m	£m	%
ENWL	1,966	1,909	-57	-2.9%
NPg	3,241	3,246	5	0.2%
WPD	7,642	7,557	-84	-1.1%
UKPN	6,531	5,620	-911	-13.9%
SPEN	3,455	3,469	14	0.4%
SSEN	3,827	3,622	-205	-5.4%
Total (All)	26,662	25,423	-1239	-4.6%
Total (excl. UKPN)	20,131	19,803	-328	-1.6%

Source: Ofgem RIIO-ED1 Annual Report, 19th December 2017, Table 3.1

- 3.22 In contrast, the average underspend across Gas Distribution Networks (GDNs), reflects underspend across all GDNs. A key factor in the underspend across GDNs (and Transmission) is that real price effects (RPEs)³⁰ to date have been more muted than expected.³¹ There is therefore a more uniform pattern of underspend across GDNs compared to DNOs.

Table 3.3: RIIO-GD1 breakdown by GDN

	RIIO-GD1 forecast2			
	Allowance	Actual & Forecast	Difference	Difference
	£m	£m	£m	%
Cadent	8,438	7,742	-696	-8.3%
NGN	2,043	1,787	-256	-12.5%
SGN	5,066	4,256	-810	-16.0%
WWU	2,075	1,727	-348	-16.8%
Total	17,621	15,511	-2,110	-12.0%

Source: RIIO-GD1 Annual Report, 19 December 2017, Table 3.3

³⁰ Since input costs may not necessarily change in line with the Retail Price Index (RPI), Ofgem allows an ex ante allowance to cover the difference between the RPI and inflation on inputs specific to the DNOs. This is known as the Real Price Effect (RPE).

³¹ As CEPA notes, the methodology employed by Ofgem to set RPEs in RIIO-ED1 was the same as for RIIO-T1 and GD1. This implies that differences in the impacts of the RPE between T1, GD1 and ED1 are the result of timing differences rather than methodological variations. See CEPA, "Review of the RIIO framework and RIIO-1 performance", Final report to Ofgem, March 2018, page 28.

- 3.23 We also note that the current ED1 forecasts are based on only two years of an eight-year price control and estimates of the underspend do not take account of re-opener mechanisms which would reduce totex allowances. In particular, there is a re-opener mechanism in ED1³² for load related expenditure³³ that allows Ofgem to return underspend to consumers when load demand on the networks (and the associated network reinforcement) is lower than anticipated.³⁴ These estimates, therefore, do not take into account potential adjustments that Ofgem may make at the end of the RIIO-ED1 price control.³⁵
- 3.24 Even with the current underspends, as illustrated in Figure 3.1 below, CEPA notes that the average return on regulatory equity (RoRE) (beyond the allowed return on equity)³⁶ under RIIO-ED1 is expected to be materially lower than under the previous price control (even when UKPN is included).³⁷ As before, the average for RIIO-ED1 is skewed by the performance of UKPN (discussed above). Consequently, the forecast RoRE (above the allowed return on equity) for the majority of the DNOs is well below the average.

³² Re-openers are provisions to re-set the revenue allowances (or the parameters that give rise to revenue allowances) for specific costs at a given date and/or upon crossing a pre-determined threshold.

³³ Load related expenditure is defined as the investment required to accommodate new and changing patterns of customers' electricity use.

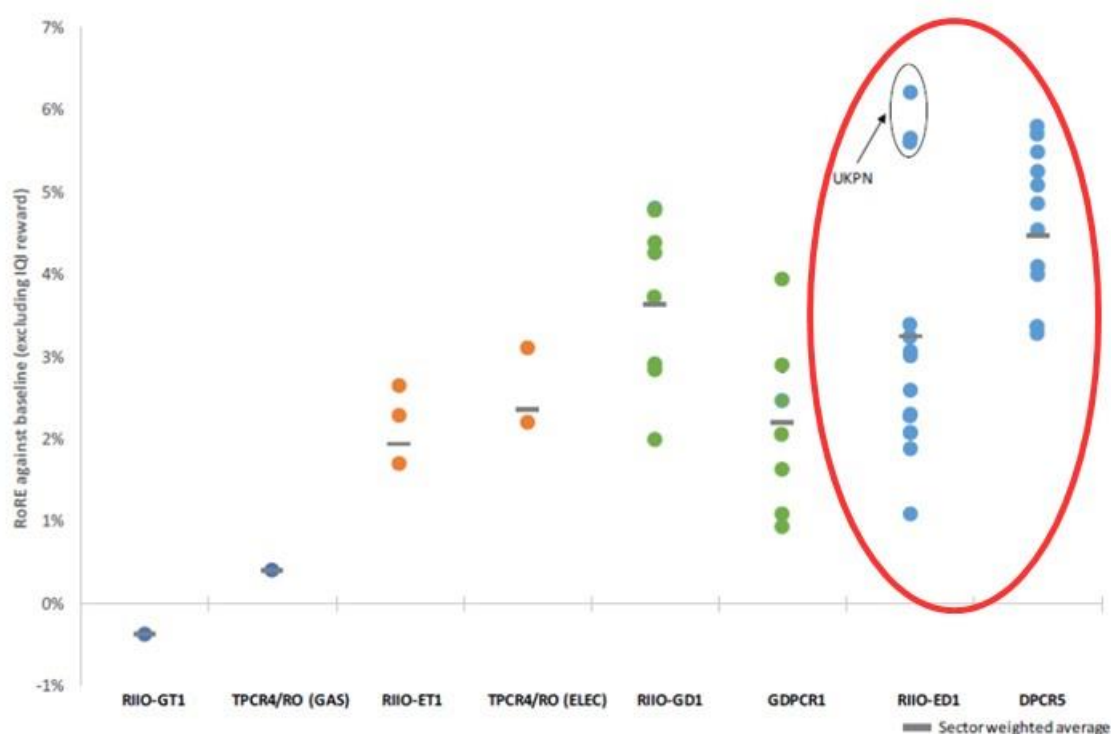
³⁴ Similarly, if there was material overspend, allowances can be adjusted upwards to ensure appropriate investment by the DNOs to meet the demands on the network (See Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 23, paragraph 4.31). For the load related expenditure re-opener the threshold is $\pm 20\%$ of the load related expenditure baseline and for the amount above/below the threshold to be greater than 1% of base revenue (See Ofgem, "Decision on close out methodologies for the DPCR5 Price Control", 20th June 2016, page 22, paragraph 3.4 (3)).

³⁵ Ofgem can only give Notice of its intention to make a relevant adjustment at the end of the Price Control Period, between 1 September 2023 and 30 September 2023. The DNO can give Notice of proposed relevant adjustments twice during the price control period, between 1 May 2017 and 31 May 2017, and between 1 May 2020 and 31 May 2020. Where there has been an underspend the adjustment cannot exceed the difference between the allowed expenditure and proposed revised level of expenditure by more than 20 per cent of the allowed expenditure. See Schedule 2A: Proposed special conditions to the electricity distribution licences held by the four licensees owned by WPD, page 174-176.

³⁶ For slow-track DNOs the allowed return on equity is 6.0%, and for WPD (fast-track) it is 6.4%. See Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 14, paragraph 3.16.

³⁷ This analysis is conducted on a like-for-like basis and as such does not account for any pay-outs or penalties under the IQI scheme.

Figure 3.1: Forecast RoRE performance above the allowed return on equity – RIIO and RPI-X price controls



Notes: CEPA's estimates for RIIO-1 are based on data from the 2016/17 RIIO Annual Reports. The estimates do not include any returns or penalties earned through the IQI "additional income". The closer a company is to Ofgem's view of costs (or the further below it), the higher the incentive rate and additional income rewards it would receive. As a corollary, the more inflated a company's forecasts are compared to Ofgem's view, the less it could hope to profit from such inflation, because their incentive rates would be lower and they would face an income penalty.

Source: CEPA, "Review of the RIIO framework and RIIO-1 performance", Final report to Ofgem, March 2018, page 23.

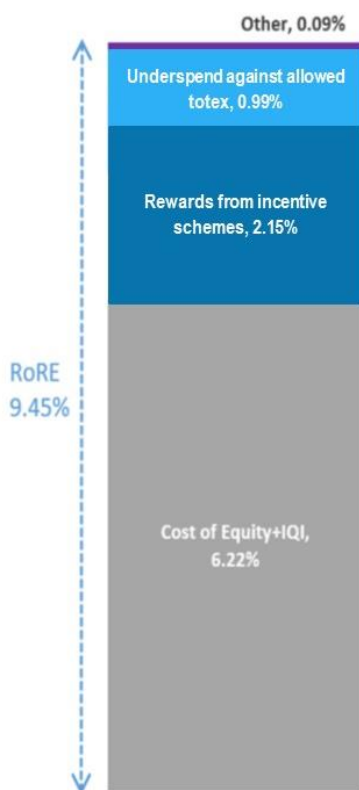
- 3.25 Ofgem forecasts an industry regulatory asset value (RAV) weighted average total RoRE of 9.45%, with this figure including the allowed returns on equity.³⁸ If we exclude UKPN from the Ofgem forecast, the estimate falls to 8.87%.³⁹ The RoRE is determined by the level of overspend or underspend against the totex allowance and the incentive schemes that drive the delivery of the primary outputs, such as the Interruptions Incentive Scheme (IIS) and Time to Connect

³⁸ Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 14, paragraph 3.17.

³⁹ Estimated using the Ofgem methodology and data from the Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 16, figure 3.4. Ofgem refers to this as the "RAV weighted average", but we note that the estimates were constructed using the regulated equity figure as opposed to the RAV. Using an arithmetic averaging approach would, however, led to similar results because the regulated gearing assumption is the same.

(TTC).⁴⁰ As illustrated in Figure 3.2 below, the returns are largely driven by out-performance under the incentive schemes.⁴¹

Figure 3.2: Simplified breakdown of industry RoRE across all DNOs



Source: Ofgem RIIO-ED1 Annual Report, 19th December 2017, page 14, figure 3.3.

- 3.26 If adjustments take place at the end of ED1 during the close out process that reduce the underspend, as discussed above, the RoRE could be lower. For example, since the higher RoRE estimate for UKPN is driven largely by the underspend, it is perfectly feasible that their actual RoRE at the end of ED1 will in fact be lower.
- 3.27 Once again, however, it is important to remember that these estimates are based on only two years of data. There is scope for changes to external factors and DNO performance (both in terms of expenditure against allowed totex and rewards from the incentive schemes) to change over the remainder of the price control, which will affect the final RoRE achieved under ED1.

⁴⁰ It should be noted that not all primary outputs have incentive schemes associated with their delivery. In particular, delivery against safety objectives is dictated by specific legal obligations the DNOs have that are enforced by the Health and Safety Executive (HSE).

⁴¹ Changes in the scope of certain projects, such as rail electrification for WPD, have also affected the underspend of DNOs. However, in the case of WPD, for example, these have been more than offset by other unforeseen costs, including the costs of transitioning to a DSO. We discuss this in detail in our response to Ofgem's consultation on the Mid-Period Review for ED1.

- 3.28 Finally, none of the RoRE analysis currently published by Ofgem as part of the RIIO-ED1 annual report ⁴² (and replicated in this report) fully reflects the DNO actual RoRE, as identified by Ofgem with its intention to develop RIIO accounts. In particular, the current RoRE calculation includes the cost of debt allowance rather than a Licensee's actual interest costs. For example, looking solely at 2016/17 performance WPD's RoRE, including our cost of debt allowance, was 7.6%. However, including our real debt costs our 2016/17 RoRE was actually 6.5%, as presented in our proposed RIIO accounts proposal published earlier this year.
- 3.29 In light of the achievements under RIIO-ED1 to date and, as the data suggests, the absence of excessive profitability, it follows that the focus for RIIO-ED2 should be on refinement, not fundamental change.

⁴² https://www.ofgem.gov.uk/system/files/docs/2017/12/riio-ed1_annual_report_2016-17.pdf

4 The principles for refining the RIIO framework

Summary

The RIIO framework is designed to incentivise cost efficiency and innovation to deliver high quality services to consumers at reasonable prices. A key aspect of such incentive-based regulation is that companies retain some of the benefit from high performance. These returns also need to be commensurate with the risk the companies face as a result of the regulatory structure they operate within.

Regulated companies face a number of risks, some that are within their control and others that are not. While each company is largely able to mitigate the risk associated with its expenditure decisions, its performance and financial structure, it has no control over its exposure to fluctuations in market demand, input prices, market costs of debt, or their pension liability, for example. The way in which the risks are allocated between the company and customers is critical for the success for the regulatory regime. Risks that the company has some ability to manage are best left largely with the company and reflected in the incentive structure embedded in the RIIO framework. Those that the company is less able to control should be allowed to be passed on to some extent to customers.

Risk borne by the companies must be compensated. Ofgem cannot impose low returns while simultaneously demanding material risk bearing, particularly where such risks are asymmetric.

Introduction

- 4.1 Economic regulation is effectively a surrogate for a competitive market and should aim to produce the same outcome that would occur in a truly and sustainably competitive market, were that possible in the sector.⁴³ In competitive markets, firms' profitability depends on their ability to operate efficiently, with efficiency being judged on multiple bases namely: allocative efficiency (prices being aligned with costs); productive efficiency (there being proper incentives to lower costs and deliver high quality services and goods); and dynamic efficiency (which depends on incentives to innovate).
- 4.2 Largely, cost-plus regulation has poor incentive properties since firms receive no profit reward for achieving efficiencies. Ofgem's RIIO framework, on the other hand, is firmly based on incentivising companies to achieve efficiency, innovate and supply outputs that would occur in the market were it competitive. This is captured by the acronym, RIIO:

$$\text{Revenue} = \text{Incentives} + \text{Innovation} + \text{Outputs}$$

- 4.3 Under RIIO, regulated revenues are set by a series of formulae and methods that incentivise cost efficiency and innovation, whilst delivering outputs and quality that customers need. To do this, regulation needs to allow companies the expectation of making a return sufficient to fund the required investment in cost reduction and innovation.

⁴³ Department for Business Innovation & Skills, "Principles for Economic Regulation", April 2011.

- 4.4 In WPD's view, RIIO-ED1 can be judged as largely a success (as described in Section 3), and so sets a good basis for RIIO-2. However, we agree that minor refinements in RIIO-2 are appropriate to more closely align the RIIO regime with its objectives. It will be critically important that these refinements do not (a) have unintended consequences as regards companies' incentives to improve customer outcomes or (b) affect the fundamental commitment of the regulatory system to enabling fair returns on investment.
- 4.5 CEPA refer to regulatory settlements as a "repeated game", where it is important for both sides (regulator and network companies) to maintain credibility and consistency between settlements if an optimal longer-term outcome is to be achieved. Stability and predictability of regulatory regimes are very important to minimise the cost of capital required, which is important given the capital-intensive nature of energy networks. Indeed, the Consultation emphasised that in real terms the energy network companies have invested over £100 billion since privatisation.⁴⁴
- 4.6 Before getting into detail of individual refinements or proposals contained in the Ofgem Consultation, this section of our response sets out what we believe should be the general principles that should underlie these changes. These principles will contribute to assuring network companies that the regulated revenues that fall out of the RIIO-2 process will indeed be equivalent to what would be required in a competitive market to incentivise cost reductions, investment and high service/quality performance, given the level of risk resulting from the regulatory structure.
- 4.7 The key principles that concern us in this section are:
- Overall design of the regulatory regime to incentivise efficiency, innovation and outputs;
 - The way risks and rewards will be allocated between the company and consumers, to incentivise behaviour aligned to what would happen in a competitive market;
 - Principles for the fair return for this risk.

Overall design of the regime to incentivise efficiency, innovation and outputs

- 4.8 Ever since the first price controls of the privatised British Telecom in the early 1980s, UK regulation has seen the benefits of the regulator committing to a price

⁴⁴ Consultation, page 4.

control over a multi-year period, in which the company itself will be incentivised to seek efficiencies.

- 4.9 Successive regulatory regimes across different sectors have refined this approach, but the key component in the UK regulated sector remains the concept of incentives based on a defined price control period, sufficient to allow the company to make its own plans and decisions while ultimately sharing in the rewards.
- 4.10 Under RIIO-1, this period was extended to eight years, allowing companies greater flexibility and incentive to plan and manage their businesses - to seek efficiencies and innovations, in supplying the outputs needed by consumers.
- 4.11 This principle should remain at the core of RIIO-2, and Ofgem needs to be sure that changes will not negatively impact the strength of these incentives.
- 4.12 In this respect we see three key dangers that Ofgem must avoid in RIIO-2:
- Reducing the power of incentives by reversing the span of time over which targets are set for some or all of the elements of the price control, or dynamically changing targets within the price control period – both of which would blunt incentives;
 - Introducing caps on company returns that limit the incentives of companies;
 - Introducing complexities to address perceived localised problems (e.g. outperformance by individual companies, or sectors) that have greater dis-benefits or unintended consequences for the network sector as a whole. Simplicity in the design of price controls is important, so that companies have clarity as to what they need to do to achieve returns and thus the incentive properties of price controls are preserved.
- 4.13 The length of the price control period will be a judgement where Ofgem must balance the power of incentives over a longer period of time, thus giving companies greater flexibility to plan and manage their business, against the difficulty in setting fixed targets over the longer period of time.
- 4.14 There is no reason to believe that this balance will be the same in all sectors. Although RIIO-ED2 must be consistent with the overall RIIO-2 framework, the issues of reward, forecasting and other market features are not the same across the energy networks. Within a consistent framework the different roles of the transmission and distribution sectors must be recognised, and this will inevitably lead to differences in their regulatory treatment. Imposing uniformity for its own sake or implementing constraints in the framework across all network sectors to address specific issues will result in sub-optimal outcomes for consumers.

- 4.15 The analysis in Section 3 shows that the distribution sector, in RIIO-ED1, can work to a longer (eight year) period, supported by the incentive of fast-track “competition” to set up high quality eight-year plans. If there are concerns on cost forecasting accuracy, refinements such as indexed real price effects can address these.
- 4.16 As a high level starting point, since the existing RIIO-1 price control lengths have worked well for incentives, there should be a strong presumption that they will be retained, along with strong incentives for outperformance, and the minimum of new complexity.
- 4.17 A necessary condition for these incentives to be effective, however, will be for the companies to expect (over the price control period) to be able to earn an appropriate return on their investment, taking account of the risk that they will bear. It is to this issue, and the principles involved, that we now turn.

Allocation of risk

- 4.18 Risk is inherent in any industry, and the energy networks are no exception. This risk can be faced by both the network companies, and their customers. Companies face financial risk to their investors, and reputational risk affecting their relationship with stakeholders – particularly their customers. Customers also face risk in fluctuations to the price they pay for their energy, the quality of service they receive (such as timeliness of connection and interruptions to supply), and society bears risk from environmental and community impacts of the networks’ operations.
- 4.19 It is inappropriate for network companies to fully bear the risks of those factors beyond their control – consumers must bear these to some extent. In developing RIIO-2, Ofgem needs to have a clear rationale for why some risks are best borne by the company or by customers. The extent to which the company is best placed to manage a risk is dependent on whether the risk is caused by factors that the company has power to influence (e.g. the company’s own internal operations), or the company is unable to influence (e.g. macro-economic circumstances).
- 4.20 As well as who is best able to manage the risk, Ofgem also needs to consider the implications in terms of price stability from passing risk on to customers (e.g. we show in subsequent sections that this is the important issue deciding who bears the risk of changes to the cost of equity, where indexation methods potentially may be volatile).
- 4.21 In broad terms:
- Companies can mitigate or control the following factors:

- Expenditure: Insofar as totex is a function of development, construction and technology, the company has a large degree of influence and ability to mitigate risk, e.g. in the way it structures its contracts with suppliers.
 - Performance (e.g. the quality of service and outputs): Performance risk is largely under the company's control.
 - Financial structure (e.g. debt/gearing levels): this is under the control of the company.
 - In contrast, companies cannot control the following factors:
 - Expenditure: Insofar as totex is a function of market demand and input prices, the company is unable to mitigate exposure.
 - Market cost of debt risk: the company is unable to influence the market rate for new corporate debt (as potentially reflected in iBoxx bond market indices), though we note that to a limited extent companies can influence the on the day pricing through timing, and performance of its advisers in marketing the company's debt through roadshows, etc.
 - Market cost of equity: Market cost of equity is outside of the influence of the company, although as shown by the accompanying NERA report at Annex 1 the underlying cost of equity is relatively constant over time and represents relatively little risk.
 - Pensions: Historically incurred pension deficit costs are largely outside of the control of the company, being dependent on management by the pension trustees and rules established by the Pension Regulator.
- 4.22 In addition, the corporate tax regime is imposed by government. Whilst the company has some discretion on how it manages its tax affairs through corporate structure, it is also constrained by reputational considerations.
- 4.23 There is a critical linkage between incentives and how the risks are allocated between the company and customers. Risks that the company is best able to manage – typically those that can be influenced by its own actions – are best left largely with the company, in order to incentivise it to do “what is right”. Incentives for the company to behave in a way that benefits customers, and deliver outputs with maximum efficiency, is a fundamental part of the RIIO regime. However, consumers also value stability in charges, and thus price volatility should be avoided where sensible.
- 4.24 In the subsequent sections we will show how consideration of the ability of the company to manage risk through incentives affects the design of the regulatory regime, and how risk is shared between the company and customers. For example, we explore how totex incentives could distinguish between performance which can be influenced by the company, and real price effects (i.e.

input prices increasing at a faster rate than RPI inflation) that are beyond the company's control; and how performance and service quality incentives should carry a high company incentive.

- 4.25 It is also worth reiterating that whilst Ofgem needs to develop RIIO-2 into a consistent structure across both distribution and transmission sectors, the way that risk is managed and allocated will not be the same. Imposing uniformity for its own sake or implementing constraints in the framework across all network sectors to address specific issues will result in sub-optimal outcomes for consumers.

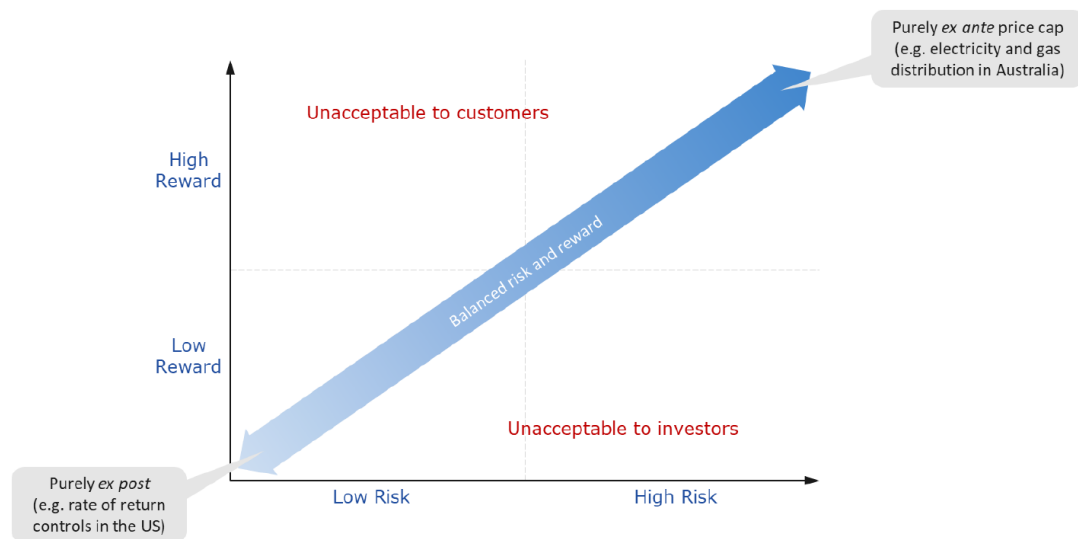
Fair return for risk

- 4.26 Once risk has been allocated, Ofgem will need to consider the consequences for the company's regulatory return - adjusting up or down, consistent with the risk allocation. It is crucial that companies are allowed returns commensurate with the risk they face. This may at times involve higher returns where risks fall in favour of network companies. These will be balanced, however, by lower returns when downside risks materialise.
- 4.27 In multiple places, Ofgem's Consultation expresses concern over excessive returns in the sector.⁴⁵ However, the possibility of enhanced or reduced returns are a deliberate part of the regulatory regime and provide the incentives for companies to utilise the freedom they have within the regime to seek efficiencies and take a share of the proceeds and also as a reward for risk bearing.
- 4.28 Customers benefit from the incentives the companies have, and the risks they bear on behalf of consumers. However, for investors, risk must be compensated. This is illustrated in Figure 4.1 below, reproduced from CEPA's review for Ofgem on the RIIO-1 framework.⁴⁶ The central theme to this illustrative diagram is that the risk and reward need to be balanced from the perspectives of both investors and customers – low risk requires low rewards (e.g. under rate of return based price controls), whereas higher risk requires higher rewards. Ofgem cannot impose low returns and demand material risk bearing, particularly where these risks are asymmetric (i.e. companies bear all or most of the downside risk, but their upside rewards are capped).

⁴⁵ For example, page 3 of the Ofgem Consultation, "RIIO-2 at a glance", says "We are also proposing new measures that will provide more protection for consumers against companies earning higher than expected returns."

⁴⁶ CEPA, "Review of the RIIO framework and RIIO-1 performance", Final report to Ofgem, March 2018, p.56.

Figure 4.1: Illustration of risk and reward in a price control



Source: CEPA

- 4.29 In previous determinations by regulators it has not always been clear that risk, and particularly asymmetric risk (whether regulatory or other), has been taken into account in determining the allowed rate of return. This has had the effect of not compensating investors for elements of risk to which they have been subsequently exposed.
- 4.30 In RIIO-2, we urge Ofgem to take a more holistic view of the target regulatory return. Much analysis goes into the Capital Asset Pricing Model (CAPM) calculated weighted average cost of capital (WACC), but little analysis is carried out on a more holistic view of risk, such as the asymmetric risk faced by the company from the removal of upside opportunities in the regulatory regime or, on the other hand, targets that allow expected outperformance.
- 4.31 Some of Ofgem’s proposals under the heading of “Fair returns” would run the risk of introducing additional asymmetric risk for investors, over and above what would otherwise be captured in a CAPM-WACC. This would occur if they cap the returns that can be made, without providing symmetric uplifts in returns should profits be poor.
- 4.32 We discuss these in more detail in Section 5, but for now concentrating on general principles, it is essential that Regulatory Allowed Returns are:
- Determined by a predictable process: Ofgem’s option for discretionary adjustments to the regulatory allowed return within the price control period would fundamentally affect the risk perceived by investors. Investors would perceive this as a one-sided risk, since the perceived likelihood of a regulator making a discretionary adjustment in favour of the company would be low;
 - Based around symmetric risk: with any process, Ofgem must carefully evaluate if the risks faced by the company are symmetric. For example, a cap

and collar, where there is more downside to the collar compared to upside to the cap, would clearly have an impact on the return that investors can expect, and would require an uplift to the CAPM-WACC in compensation. This could be the case where Ofgem suggest a collar based on the risk-free rate, but a cap based on total market equity returns;

- Not limited for outperformance: there are two separate problems with limiting rewards. First, by cutting off upside it again results in asymmetric risk. Second, it also has the unintended consequence of disincentivising companies when they reach the trigger point at which they receive a lower proportion of outperformance themselves. As the CEPA report points out, this can result in companies delaying cost saving measures until the next regulatory period to the detriment of customers.⁴⁷

- 4.33 We suggest that Ofgem carefully evaluates all of its ideas on regulatory allowed returns against these principles.
- 4.34 There is a particular issue with the potential for asymmetric risk from changes to the regulatory regime compared to what was previously understood by investors (i.e. changes to the “regulatory contract”). This is sometimes called “regulatory risk”. Ofgem’s pressure for “voluntary contributions” by companies falls outside the regulatory framework and so contributes to “soft” regulatory risk. Regulatory risk was not considered in the CEPA report since it was assumed that this could be minimised by the regulator promising stability and certainty. It is important to understand that regulatory risk is an example of asymmetric risk – that is investors will perceive it as being a one-sided risk that is more likely to reduce expected returns rather than increase them.
- 4.35 Finally, these regulatory principles – designing a holistic, price control regime that provides the right balance between risk, reward and incentives - should also ensure that reasonably efficient operators are able to finance their activities, including long-term capital investment. This is obviously important both from the perspectives of investors, and also to ensure that networks do not face financial distress.
- 4.36 We urge Ofgem, in RIIO-2, to provide a more transparent and holistic treatment of the regulated expected return, and how this relates to the CAPM-WACC after taking account of all aspects of risk.

⁴⁷ Review of the RIIO Framework and RIIO-1 Performance, by Cambridge Economic Policy Associates (CEPA), March 2018, page 80-81, paragraph 442

5 Application of the principles for refining RIIO-2

Summary

We agree with Ofgem that: (i) there is scope to improve customer engagement; (ii) the innovation schemes should be continued (iii) there needs to be a whole system approach (covering distribution, transmission and system operators); and (iv) incentive schemes can be refined and developed (such as the IIS).

WPD reads the Consultation as suggesting that there may be merit in extending “competition for the market”, particularly as regards large transmission projects. However, it is important to be clear that distribution is different from transmission in this respect. In distribution, there are relatively few separable investment projects for more than £10 million undertaken by DNOs that are not embedded in the existing network. Moreover, even the largest of these projects tend to be substantially below the £100 million threshold proposed by Ofgem, meaning that they would not meet the high value required. Accordingly, efforts to extend competition in distribution are likely to compromise DNO efficiency. Moreover, there is also material existing competition in electricity distribution. This is because: (i) the DNOs already put investment projects out to tender with third parties; and (ii) there is also already substantial competition in new connections from independent DNOs.

An eight-year price control in distribution has clear advantages in terms of: greater stability for investment planning, reduced regulatory burden, encouraging long term behaviour, and facilitating the delivery of larger projects under one period.

We are concerned that the suggestions made under the heading “Fair returns” would lead to material asymmetric risk for investors. This is because they cap the returns that can be made, without providing symmetric uplifts in returns should profits be poor. Ofgem would need to be careful to ensure that any RoRE sharing factors were both fully symmetric on the upside and downside, and that incentives for performance are remained for the company at all levels of out-performance or under-performance.

We have significant concerns over the impact of the reduction in the regulatory cost of equity from circa 6% to 3-5%. Work by NERA (see Annex 1) highlights serious errors made by CEPA in their analysis for Ofgem, and concerns regarding the impact the reduction would have on financeability. None of Ofgem’s suggestions for tackling the issue preserve the integrity of the RAV model. Financeability would require either a higher cost of equity, or a reduction in the credit rating assumed in debt indexation to provide a higher cost of debt allowance.

Cost of equity indexation is not supported by WPD. Neither Ofgem nor CEPA have made the case that volatility of the underlying cost of equity requires indexation. We do not believe that the cost of equity varies to such an extent that Ofgem is not able to set a

Introduction

- 5.1 In general, RIIO-ED1 has been a success, and we therefore believe that much of the focus of RIIO-2 should be on building upon and refining the framework, with an eye to simplification. Ofgem’s Consultation is wide ranging, as we would expect at this early stage in RIIO-2 development. Our detailed responses in Section 6 indicate that we support Ofgem in many of the themes and ideas that are contained in the documents.
- 5.2 We support Ofgem in seeking to give consumers a stronger voice: we believe that in RIIO-1 Ofgem and the network companies together have improved customer engagement, and that RIIO-2 should be used to not only strengthen this work, but also see how consumers and other stakeholders can more effectively engage. Key to this will be a clear understanding of the roles of the Customer Engagement Groups and RIIO-2 Challenge Group.

- 5.3 Encouraging the transition to end-use energy efficient technologies will be a key challenge. We support Ofgem's view that the schemes for innovation development should be taken forward in coordination with the public sector and third parties. Ofgem has also been at the forefront of regulators in driving efficiency incentives and this must continue. We agree that this should ideally be done in a way that simplifies the price controls (and certainly does not make them more complex).
- 5.4 We agree that RIIO-2 must be designed around whole-system outcomes, allowing company behaviours to be regulated around a view of costs and benefits aggregated across all sectors in a consistent (but not uniform) manner. The role of the system operators will be important to this.
- 5.5 RIIO-ED2 must form a consistent part of the overall RIIO-2 package. Ensuring that all stakeholders (DNOS/DSOs, TOs, the ESO, customers and Ofgem) have appropriate incentives to work together for the benefit of the whole system must be a priority objective in the development of the RIIO-2 framework. Cost Benefit Analysis methodologies used by companies to support investment cases need to take account of whole system effects.⁴⁸ For example, investment incentives need to be coordinated to fully realise the benefits of a smart grid, where NGET and DNOS/DSOs are all involved in ultimate service provision.
- 5.6 We have not sought to comment in detail on the gas and electricity transmission or gas distribution price control regimes under RIIO-1. However, it is clear that, over the first two years ED1 is performing well and Ofgem learned lessons from the first rounds of gas and electricity transmission, and gas distribution price controls under RIIO-1. Going forward, it is important that cross sector requirements are incorporated into the RIIO-2 framework, with sector specific requirements being built into sector specific frameworks.
- 5.7 The issues of reward, forecasting and other market features are not the same across the energy networks, and Ofgem's approach should be tailored to the specific features of the different networks. Within a consistent framework, the different roles of the transmission and distribution sectors must be recognised, and this will inevitably lead to differences in their regulatory treatment. Imposing uniformity for its own sake will result in sub-optimal outcomes for consumers. Ofgem should recognise that different priorities may be appropriate in different price controls.
- 5.8 Simplification is an important principle. There is a danger that successive price controls layer on additional levels of complexity to address perceived shortcomings with the existing regime, without fully appreciating unintended

⁴⁸ This point is made in CEPA, "Review of the RIIO framework and RIIO-1 performance", Final report to Ofgem, March 2018, Table 4.7.

consequences for overall incentives. Many of Ofgem's proposals run counter to their principle of simplification and introduce complexity and risk without recognising existing mechanisms to deal with the issues identified. In general, we believe that this should lead Ofgem to use the opportunity of RIIO-2 to focus on the overall incentive structure, rather than individual elements.

- 5.9 For example, many of Ofgem's concerns on the consequences of forecasting errors for companies' returns can be addressed by indexing Real Price Effects (RPE). Provided this is done correctly (i.e. finding appropriate indices that capture underlying cost trends), this will take away the need for other more complex mechanisms such as adjusting forecasts within period based on relative performance of companies.
- 5.10 However, we believe that certain options will be inappropriate or unhelpful to the electricity distribution sector. We discuss these here.

Competition for the market

- 5.11 One issue that should be addressed at the outset is the scope for market competition to replace regulation. WPD reads the Consultation as suggesting that there may be more scope for market competition to develop, particularly as regards large, standalone transmission projects.
- 5.12 Even when a market is characterised by a natural monopoly, there may be scope in some markets for regulators to secure some of the benefits of rivalry between firms through competition *for* the market. Competition for the market can be introduced through various forms of tendering at different stages of a project lifecycle. Tenders can be introduced in the early or later stages of a project (early and late competition models which are discussed further below). It may be possible to introduce a tender for the right to supply the entire market or tendering can be limited to certain aspects of the market. For example, the right to construct a major new asset could be competitively tendered, whereas the operation of the asset post-delivery can still be retained by the incumbent firm. Tender design is critical for the successful implementation of a competition-for the market policy and the most appropriate model depends on the nature of the market. In this regard, Ofgem uses competitive tendering to select the owners and operators of offshore electricity transmission assets (OFTO regime) and has recently proposed using a similar tendering model in the market for onshore electricity transmission (CATO scheme). These schemes apply to assets that are new, separable and high value (the "competition criteria").
- 5.13 It is not clear at this stage what Ofgem means by 'investment projects' in the Consultation. We assume that they are large individual projects such as building a new transmission overhead line. Key to determining whether such an initiative is appropriate will be the nature of the investment projects to be covered. However, it is important to be clear that distribution is different from transmission in this respect. In distribution, the bulk of investment projects are

not separable, they are embedded in the existing network. As such, these projects must be approached in a holistic way. Increasing the scope of distribution works that are open to competition to include embedded asset replacement/renewal could, therefore, adversely affect DNO efficiency.

- 5.14 As regards the investment projects that are separable, even the largest of those projects tend to be well below the £100 million threshold proposed by Ofgem, meaning that they would not meet the high value requirement. The potential benefits of any expansion of the scope of competition must outweigh the associated transaction and operational costs, particularly in ensuring an alignment in the incentives of the builder of new infrastructure and its on-going operation and interaction with existing infrastructure.
- 5.15 Considering first transaction costs, it is clear that involving third parties in the development of assets through a competitive process will create transaction costs. For example, the management of a more active network will also require a high opex cost (e.g., control and dispatch). There may be additional complexities in implementing third-party involvement, such as not knowing whether they will have sufficient capacity to fully meet the system needs until after the procurement is completed. Obtaining traditional reinforcement at such a stage will further increase transaction costs.
- 5.16 There will also be further operational costs. In particular, it is also important to appreciate that when we negotiate framework contracts with our contractors, our ability to secure competitive low prices for these contracts depends on our ability to offer certainty and clarity as to the scope, timing and nature of works being procured. In the absence of this, contractors are less able to procure the necessary equipment and labour required and to project plan efficiently, and these higher costs and risks will increase tendered framework prices.
- 5.17 Further opening up low value work that is currently non-competitive could have wider adverse effects on DNO efficiencies. This is because the outcome of competitions for such schemes would not be known at the business planning stage and DNOs would still need to 'gear up' to deliver these projects in case they were the successful bidder, no other party makes a reasonable bid, or otherwise there is a risk of a third party not being able to deliver. Being unsuccessful could therefore lead to inefficiencies that would not benefit the customer or the DNO.
- 5.18 The possible benefits of any initiatives to increase competition in distribution must also be judged against the background that competition in connections is a very well developed concept in the electricity distribution sector.
- 5.19 First, the DNOs already put investment projects out to tender with third parties. (As noted above, direct competition could in fact compromise the efficiency of this competitive tendering).

- 5.20 Second, there is also already substantial competition in new connections from independent DNOs and independent connection providers. Third parties can undertake the majority of new connections work at all voltages up to and including 132kV. This includes not only the new connection works but also certain types of associated reinforcement and diversionary work. Licensed Independent Distribution Network Operators (IDNOs) are playing an increasingly significant role in the provision of electricity infrastructure and connections. They are well established and enjoy significant market penetration in the electricity distribution sector. Under this model, the IDNO retains ownership and control of the installed assets that are embedded within the host DNO's area.
- 5.21 Accordingly, in WPD's view all of the projects suitable for competition are already open to competition in distribution, with even low value connections/replacements being open to competition. Under each DNO's charging methodology, where completely new distribution system assets or complete replacement of existing assets is required as a consequence of customer driven projects, a third party is able to undertake the works as long as they are physically and electrically separate from the DNO's existing distribution system. In this respect, there is already no issue with competitors undertaking new works.⁴⁹
- 5.22 Turning to the scope for extending competition more generally (i.e. outside distribution), even once it has been established that the investment project meets the competition criteria, the next issue to consider is the model to be adopted for the competitive process. Under the OFTO and CATO regimes both late and early models for introducing competition have been considered. While late models limit the competition to clearly defined outputs and assets, early models offer the scope for tenderers to design the assets as well as constructing them.⁵⁰

⁴⁹ If separation is required following energisation, i.e. ownership boundaries need to be established, this can be accommodated under the remit of Licensed Independent Network Operators (IDNOs). IDNO networks are generally (but not always) downstream of the DNO's existing assets. Networks owned and operated by additional third parties that are embedded within the existing distribution system could create operational complexities that would be difficult to manage. It is therefore incumbent that DNOs adopt these assets and assume operational responsibility following the completion of any project constructed under the competitive process.

⁵⁰ Late models of competition are structured so that competitive tenders are run later in a project's lifecycle, ahead of construction and ongoing operation, or post-construction and ahead of operation. Early models of competition allow competitive tenders to be run at an earlier stage in a project's development, before a specific solution has been designed, or even ahead of any detailed thinking about the type of idea or solution that might solve the original issue. Consultation, page 45, footnotes 34 and 35.

- 5.23 Early models may have some potential upsides, such as more innovative solutions and reduced handover risks. However, as noted in Ofgem's August 2016 consultation, they create some specific challenges:⁵¹
- (a) Risks: any changes to the design following the tender and appointment of the winning bidder may erode the benefits of the competitive process, as subsequent changes would not be subject to a tendering procedure.
 - (b) Tender evaluation: the downside of more innovative solutions is the potential range of proposed solutions, which may make a comparative analysis of the different bids and overall evaluation more complex.
 - (c) Investment: the uncertainty associated with early stage tenders may also deter some investors and the greatest risk may be for new entrants. These factors reduce the degree of competition.
- 5.24 In contrast, late models of competition are potentially less complex and involve less risk for bidders. Late models are therefore likely to result in more competition, potentially creating greater benefits for consumers.
- 5.25 Whilst, there may be advantages in using the 'early' model for delivery in transmission projects. We are not convinced that further competition for the market would be effective in distribution, still less that early models should be used. In many ways, distribution models already allow the third party to undertake design solutions, undertake surveys/studies and obtain consents, but the dynamic state of the distribution system can be problematic in identifying potential solutions. We note that Ofgem have applied a 'virtual competitive process' in the recent Hinckley Point project (which allows for different technical solutions to be applied) due to the time constraints limiting the ability to run a full competitive tender process. This raises two concerns for WPD. Firstly, that the timescales required for these processes could impact on the timely and efficient construction and delivery of these schemes for the consumer. Secondly, that in applying a virtual competition, the implicit assumption is that third parties are somehow able to come up with a better technical solution that provides the best holistic, network wide solution than that envisaged by the network operator. We consider it inappropriate to assume that the network operator does not have an effective procurement function that will deliver a sound outcome for the consumer, particularly where the price control regime is designed to incentivise networks to operate as efficiently as possible .
- 5.26 Accordingly, subject to understanding more precisely what is proposed by Ofgem for electricity distribution, it is our preliminary view that competition in

⁵¹ Ofgem "Extending Competition in Electricity Transmission: Tender Models and Market Offering" Consultation, 04 August 2016, page 14, paragraph 1.14.

distribution has already driven efficiencies in this area; therefore, further competition for the market via competitive tendering is unlikely to yield material consumer benefits. There might, however, be further opportunities at the transmission level, both in wider projects and enabling works, through the competitive tender process, that would benefit the delivery of whole system outcomes.

Length of the price control

- 5.27 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. As was understood at the time of (and following) the decision to extend, an eight-year price control can help to:⁵²
- (a) create greater stability for investment planning (reducing the impact of capex cycles, potentially lowering risk and the cost of capital);
 - (b) reduce the regulatory burden;
 - (c) encourage beneficial long-term behaviour;
 - (d) align the regulatory period to planning cycles (for longer lived assets); and
 - (e) facilitate the delivery of larger projects by covering them under one period.
- 5.28 With data from only two years of the RIIO-ED1 price control, it is too early for full evidence of the benefits of an eight-year period to be apparent. However, we are confident that the eight-year price control period:
- has provided licensees the time to apply leadership focus on how the work programmes are to be delivered;
 - provides time to develop, test and implement innovative techniques and commercial arrangements, for example the transition to DSO; and
 - provides flexibility for allowances to be redirected to changing business needs without the need for regulatory intervention.

⁵² See for example Ofwat, report by Frontier Economics, "Future price limits — Form of control and regulated/unregulated business", July 2010, page 62-63; Ofgem and Ofwat, "Financing Networks: A discussion paper", February 2006, page 6; and Thames Water, report by KPMG, "Water 2020: Issues to consider regarding the Nature of regulatory interventions and the length of the regulatory period", October 2015, section 7.

- 5.29 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.
- 5.30 The longer price control allows companies more scope to balance under and overspends. There are inevitably a number of areas where forecast expenditure differs from that predicted at the time of submitting the Business Plan. Some of these areas will be underspends and some will be overspends. For example, in WPD's case in ED1, higher than forecast volumes of large size connections requiring network reinforcement (especially in East Midlands where there is significant growth along the M1 corridor) has resulted in an overspend, while WPD has incurred lower than forecast expenditure on general reinforcement caused by the redeployment of resources to deal with the higher volumes of connections related reinforcement. We have also faced additional costs associated with transitioning from being a DNO to becoming a distribution system operator (DSO).
- 5.31 WPD's Business Plan recognised that changes during the price control would have to be accommodated and investment decisions would be reprioritised where necessary throughout the price control. We are committed to managing its overall work programme so as to respond to new challenges. Underspend on one area can thus be reallocated to other areas. In this way, we manage new and existing risks in line with its Business Plan commitments.
- 5.32 The rationale for shortening the price control period seems to rest on the idea that DNOs are enjoying higher than expected returns, driven in part by the difficulty of accurately forecasting costs over a longer period. Ofgem is concerned that maintaining an eight-year price control means that the impact of these "excessive" returns affects consumers for a longer period of time before they can be corrected. This cannot be judged in the abstract, but should be judged specifically for ED1 and the uncertainty mechanisms included in ED1, not by reference to deficiencies in the regulatory framework for other energy network sectors.
- 5.33 As explained in Section 3, the average underspend in ED1 across all DNOs is currently forecast to be 4.6% of the totex allowance. Excluding UKPN, this underspend falls to 1.6%. There is, thus, no evidence of a material or systematic underspend across DNOs related to the design of ED1 given the inevitable uncertainties that exist when making forecasts of this kind. Furthermore, in the case of UKPN a key element of the current underspend (network reinforcement) is covered by a re-opener mechanism that allows Ofgem to recoup the

underspend for consumers. Furthermore, the gap between allowed returns on equity and expected performance is forecast to be materially lower than under the previous price control. The additional return above the allowed cost of equity has so far been largely driven by outperformance by the DNOs and the associated incentive payments (as illustrated in Figure 3.2 in Section 3).

- 5.34 It is also worth re-emphasising that these figures are based on only two years of data. As noted by CEPA:

*"Network companies were exposed to a number of risks that may be outside their control, and have earned added returns when these risks have **so far** turned out in their favour."⁵³[Emphasis added]*

- 5.35 As discussed in Section 4, risk is inherent to any industry. To date, the risks associated with ED1 have largely favoured the DNOs, albeit to a moderate degree. However, this can (and will at some point) change. Attempting to mitigate against any upside risk for DNOs, without applying equal measures to protect firms against downside risk, creates asymmetric risk. Effectively, DNOs will be exposed to greater downside risk than upside risk. Investors do not like downside risk and require additional returns for bearing additional downside risk.⁵⁴ Asymmetric risk, therefore, leads to a higher cost of equity for firms. This cost is borne by consumers through higher prices.
- 5.36 Moreover, while Ofgem identifies the potential for DNOs to enjoy any upside risk over a longer period under the 8-year price control, the same would be true for consumers when risks turn out in their favour. For example, it is easy to envisage scenarios where DNOs face substantial cost pressure due to wage and input cost inflation above what was allowed for by the regulator.
- 5.37 Rather than introducing a fundamental change in the duration of the price control at this stage, it would seem more appropriate to wait at least until the end of RIIO-ED1 (i.e. during RIIO-ED2) before attempting to determine the effectiveness of the 8-year price control, for potential change in RIIO-ED3. Once again, as highlighted by CEPA:

"Our assessment has been conducted on the basis of the available evidence to date – four years of data for RIIO-T1 and GD1, and two for RIIO-ED1. This means that we are only able to present a partial view of the success (or

⁵³ CEPA, "Review of the RIIO framework and RIIO-1 performance", Final Report to Ofgem, March 2018, page 55.

⁵⁴ Only someone who gained satisfaction from risk (i.e. a gambler) would voluntarily accept a "double or lose all" bet on the toss of a coin. Conversely, most people are prepared to pay a premium to insure themselves against unlikely events, even though the expected return (payout x probability of event) is less than the price of the insurance premium.

otherwise) of the RIIO framework. **Network companies' performance and the effectiveness of different elements of the framework could change significantly over the course of the entire price control period, and the conclusions of this report should be considered with the above in mind.**⁵⁵
[Emphasis added]

- 5.38 Moreover, to the extent that efficiencies are achieved, we would expect consumers to gain in future price controls as lower allowances are then set in RIIO-2. Indeed, CEPA makes this point explicitly:

*It is also important to note that **price control regulation is often considered a "repeated game"**, so the impact of the RIIO framework would not play out in full during the first set of price controls. For example, **if RIIO has resulted in larger efficiency savings, some of the benefit will feed through to lower charges for consumers in RIIO-1, but a further benefit to consumers would be when Ofgem uses those revealed costs to set lower allowances in RIIO-2.** We expect both Ofgem and the network companies to be in a better position to apply the principles of the RIIO framework in future price controls."*⁵⁶ [Emphasis added]

- 5.39 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.

Fast-tracking and the Information Quality Incentive should be retained

- 5.40 Turning to DNOs' incentives to submit high quality business plans as part of RIIO-ED2, we believe that two specific aspects of RIIO should be retained.
- 5.41 Fast-tracking of the best business plan has created valuable benefits for consumers. CEPA quantifies a significant net benefit to consumers from the RIIO-1 fast track process in the distribution sector.⁵⁷ Key to the success of distribution fast-tracking was having a sufficient number of companies to compare, which allowed Ofgem to form a view of where the fast-track threshold should be placed.
- 5.42 Similarly, we believe that the principles of the Information Quality Incentive (IQI) are sound – companies should be rewarded for delivering to their forecasts and for achieving costs in line with efficient baseline cost assessments. The fact

⁵⁵ CEPA, "Review of the RIIO framework and RIIO-1 performance", Final Report to Ofgem, March 2018, page 20.

⁵⁶ CEPA, "Review of the RIIO framework and RIIO-1 performance", Final Report to Ofgem, March 2018, page 20.

⁵⁷ CEPA, "Review of the RIIO framework and RIIO-1 performance", Final report to Ofgem, March 2018, p.69.

that some DNOs have achieved lower costs than forecast, despite the incentives provided by the IQI, does not mean that IQI incentives are unimportant.

- 5.43 Similarly, Ofgem's concerns over establishing an efficient baseline are unfounded. Whilst there may be challenges in establishing an appropriate baseline forecast for networks with few companies (such as transmission), this does not hold for distribution. In electricity distribution there is sufficient scope to benchmark companies to allow Ofgem to determine an efficient baseline.
- 5.44 Ofgem's fears over establishing an efficient baseline can also be mitigated by indexing real price effects (RPEs). RPEs have been important in the setting of cost allowances in RIIO-ED1. While cost allowance forecasts have been reasonably accurate in RIIO-ED1, the underspends in GD1 and T1 have been created in part by RPEs. This suggests that some form of development in the use of RPEs would be appropriate for RIIO-2 to bring greater accuracy to cost allowances with respect to both over and under performance. The main consideration for this is the selection of an appropriately representative index (or indices) which protects both customers and companies. We disagree with Ofgem's suggestion that RPEs could be set at zero (paragraph 6.28 bullet three), because this would provide no protection to companies in the event of increased RPEs – effectively nullifying the benefit.

Relative performance schemes – “Competition in the market”

- 5.45 In addition to discussing ways of bringing in more competition “for the market”, the Ofgem Consultation also considers ideas to indirectly induce competition between DNOs. This can be described as competition within the market.
- 5.46 These ideas rely on linking the revenue allowances of companies to relative performance, rather than absolute performance. The ideas occur in three separate parts of the Consultation Document:
- (a) In paragraph 6.19, Ofgem says it will examine if some of the output incentive mechanisms could operate on a relative basis, rewarding companies that exceed the sector average;
 - (b) In paragraph 6.32, Ofgem discusses dynamically resetting cost allowances, during the price control period, at the upper quartile of unit cost performance in the sector;
 - (c) In paragraphs 7.128 and 7.140, under the heading of “Ensuring fair returns”, Ofgem includes two options for dynamically resetting the Regulatory Allowed Return within the settlement period, using the relative performance of companies – “Zero or fixed sum incentive pot”, or alternatively “Anchoring” the Regulatory Allowed Returns that individual companies can make to a sector average which is itself constrained between a floor and ceiling.

5.47 We comment on each of these schemes in detail in Section 6; here we confine our comments to the broad principles. There are fundamental reasons why relative performance schemes *within* a price control are inappropriate in the context of electricity distribution:

- Where targets are reset within a price control period (e.g. to the upper quartile), outperformance incentives are likely to be muted. Outperformance in the early part of the price control period is likely to contribute to a tightening of output targets or reduced allowed revenues mid-way through the period. The situation would be worse if the upper quartile is used to reset output targets – a company just below the upper quartile would have absolutely no incentive whatsoever to rise above the upper quartile.
- Trends within a price control period may reflect different factors from one DNO to another, i.e. targets for one DNO may become unachievable if these are revised and the reason for the change in target is exogenous/uncontrollable;
- By resetting a cost allowance at the upper quartile within a price control period, a wedge is being introduced between target and expected returns that would depress expected returns below the underlying cost of equity.
- It is highly debatable whether relative performance is the right metric to incentivise – the best outcome is for all companies to exceed efficiency expectations; and if they do so, be rewarded for this. This is particularly the case if it is appropriate for certain targets to then be reset at the higher achieved levels in future price controls.⁵⁸

5.48 In summary, all of these schemes run the risk of both: (i) disincentivising overall investment in the sector by depressing the returns to said investment; and (ii) reducing incentives to outperform on an absolute level across the sector as a whole.

“Fair returns”

5.49 Under the heading “Ensuring fair returns” Ofgem has several suggestions that aim to constrain company returns where outperformance is not perceived to have been accompanied by benefit to consumers, e.g. where outperformance is caused by lower input price inflation or weaker economic conditions leading to less network cost. We have already noted that indexing RPEs against credible

⁵⁸ The appropriateness of raising future targets once these have been met depends on whether high performance against targets involved one off investments (in which case further incentives are less required) or ongoing expenditure to sustain high performance (in which scenario further incentives to meet or exceed targets are required).

external cost indices should eliminate Ofgem's concerns over input cost mis-forecasts.

5.50 In Section 4 (paragraph 4.32) we discussed general principles of these schemes:

- they must be determined by a predictable process;
- they must result in symmetric risk;
- they must not disincentivise outperformance.

5.51 Against these criteria we believe that none of Ofgem's proposed schemes should be implemented as they are described. The proposed schemes considered by Ofgem are as follows:

- A hard cap and floor: as Ofgem recognises, this would reduce or destroy incentives for companies to improve efficiency when either above the cap or below the floor. Cap and collars are applied to specific outputs, where there is a need to guard against a company providing more of an individual output than customers want, and still receiving a bonus for this. However, this is not the same as Ofgem putting in place an arbitrary overall cap on RoRE, since this will disincentivise the company from making any additional efficiency initiative;
- Discretionary adjustments: this would fundamentally affect the risk perceived by investors in any regulatory settlement and increase the cost of capital that will be passed on to customers. It would be extremely difficult to mitigate this risk by specifying conditions for adjustment in advance. Ofgem suggests requiring companies to provide evidence that returns above a certain level were due to their own efforts, and not a failing in the settlement. In practice, it is difficult to see how such evidence could be compiled since outperformance would likely be caused by a mixture of internal and external factors. More importantly, investors would perceive this as one-sided risk, since the perceived likelihood of a regulator making a discretionary adjustment in favour of the company would be minimal;
- Constraining totex and output incentives:
 - "Sculpting" or "Tapering" efficiency incentives: under this proposal the proportion of any efficiency improvement retained by the company would reduce the more it outperforms. The first point to note is that if introduced, the schemes' underlying rationale would also require it to be symmetrical: the scheme would need to increase incentive payment rates for companies that underperform to preserve the same Regulatory Expected Return. However, more fundamentally the scheme would have two unintended consequences: (1) as noted by Ofgem, companies would be disincentivised from making large step-changes in efficiency and would concentrate instead on low risk smaller incremental changes; (2) companies that had

already exceeded efficiency targets in one period would be incentivised to delay any further improvements to the next period. An illustration of this unintended consequence is given in CEPA's report to Ofgem;⁵⁹

- Fixed incentive pot: under this scheme Ofgem would, ex ante, decide on a fixed amount of net reward and penalty payments across the industry or sector as a whole, and then distribute this according to performance of each individual company. Poorly performing companies would pay a penalty, whilst high performing companies would receive a reward. In aggregate the sum of penalties and rewards would equal the value of the fixed pot. Superficially this scheme may appear attractive as it induces a sense of competition between companies. However, we see three fundamental drawbacks:
 - Relative performance is not the correct target. It should be possible for all companies to receive a reward if they genuinely outperform;
 - If targets differed by company, it would expose all companies to errors made in setting targets of other companies. For example, if Ofgem was too lenient in setting targets for one company, which were easily exceeded, all others would suffer a penalty. This risk would be of concern to investors;
 - There would be the added burden of financeability checks on companies receiving a penalty whenever this put their RoRE below the cost of equity. Alternatively, there would need to be a cut-off penalty to ensure that a poorly performing company was not made unfinanceable.
- Zero sum incentives: this scheme appears to be the same as the fixed incentive pot, but with the pot size set as zero. In aggregate, underperforming companies would be penalised by the same amount as outperforming companies were rewarded. The scheme suffers from exactly the same drawbacks as the fixed incentive pot scheme.
- A RoRE sharing factor: this would simply dampen incentives for companies to seek efficiencies. 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;

⁵⁹ CEPA, "Review of the RIIO framework and RIIO-1 performance", Final report to Ofgem, March 2018, p.80-81.

- Anchoring returns: this is a scheme that would activate when the RAV-weighted average return for the sector as a whole (e.g. the electricity distribution sector) exceeds a pre-determined cap (Ofgem suggest the long run return on the stock market) or falls below a predetermined floor (Ofgem suggest the cost of debt). When this happens revenue allowances of all companies are scaled up or down (in proportion to RAV) to bring the sector average RoRE back into the predetermined range. Our first comment is that the range suggested by Ofgem (cost of debt to return on stock market) is clearly asymmetric⁶⁰ and, at a minimum, would need to be replaced by a symmetric range.⁶¹ Our second comment, shared with the fixed incentive pot scheme, is that it would expose all companies to errors made in cost forecasts for other companies. For example, if Ofgem was too lenient in setting allowed costs for one company, sufficient to push the industry average RoRE above the ceiling, all others would suffer a penalty. Thirdly, there would need to be additional financeability checks on all companies with lower returns in the event that a downward adjustment was made.

5.52 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.

Cost of equity

5.53 We have significant concerns over the impact of the reduction in the regulatory cost of equity from circa 6% in RIIO-ED1 to 3-5% on the financeability of the sector.

5.54 As demonstrated by the research from NERA, we believe the estimate should be significantly higher, due to errors made by CEPA in estimating the total market return and erroneously benchmarking the asset Beta against water companies and National's Grid's full operations (see NERA report "Cost of Equity for RIIO-2" in Annex 1). Significantly cutting the cost of equity would substantially undermine the basis of long-term network investment. It is in any event premature at this stage to engage in discussion on specific assumptions when the next electricity distribution network settlements are not until 2023.

⁶⁰ This is because the company cost of equities are typically closer to the total market return than they are to the cost of debt.

⁶¹ We note that Ofgem also refers to a symmetrical cap and floor and a baseline cost of equity.

- 5.55 Nevertheless, Ofgem's proposed 3-5% cost of equity is likely to create a financeability issue for companies in respect of existing debt issuance. Ofgem make three proposals for "resolving" these issues:
- Abolishing indexation of the Regulated Asset value (RAV);
 - Do nothing, and put the onus on the companies to inject equity;
 - Introduce a licence-backed revenue floor to ensure financeability of debt from a notionally geared company, with the amount recovered from companies over a period of time.
- 5.56 NERA has studied all three options and concluded that none are appropriate (see Annex 2). Abolishing indexation of the RAV would be a move away from real price regulation, would materially increase the regulated price in the short term and present inter-generational issues as current consumers would be effectively paying for future capacity.⁶² Doing nothing would be contrary to GEMA's statutory duty to ensure industry financeability, and introducing a licence-backed revenue floor recovered over time would simply postpone the issue (and probably not be recognised by credit rating agencies).
- 5.57 In practice, any financeability issue would be an indication that either the cost of equity (and/or cost of debt) was too low, or debt indexation needed to assume a lower credit rating and consequently a higher cost of debt allowance. We would not recommend a lower credit rating being assumed as this would increase the risk of financial distress.

Indexation of the cost of equity

- 5.58 On cost of equity indexation, Ofgem needs to consider exactly what the consumer benefit would be. This requires two questions to be answered:
- Is the cost of equity volatile and unpredictable such that Ofgem cannot set a reasonable ex-ante allowance for the whole price control period?
 - Can cost of equity indexation be applied in an objective manner?
- 5.59 With regards to the volatility in the cost of equity, Ofgem has suggested that the cost of equity can change over time and it can be difficult to predict these changes when setting an ex-ante allowance. However, we dispute this. Whilst individual parameters that form part of the cost of equity calculation, such as the risk-free rate, can be volatile over time, Ofgem has not considered evidence that

⁶² Use of "slow" money would also not avoid this, because the same financeability problem would re-emerge in the future.

shows changes in the risk-free rate may be offset by other parameters such as the equity risk premium, see for example Siegel (1998).⁶³

- 5.60 Prominent economic institutions, such as the Bank of England, have recognised that the recent low interest rates and economic uncertainty have led to increased equity risk premiums, with the implication that the TMR has been broadly constant over the recent period. Indeed, the Bank of England's own DGM TMR model provides support for a broadly constant cost of equity over time. Therefore, we do not consider that the cost of equity varies such that Ofgem is unable to set a reasonable cost of equity allowance for the RIIO-2 price control period.
- 5.61 With regards to whether it is possible to set an objective index for the cost of equity, NERA go on to show that if Ofgem were to pursue indexation of the cost of equity, it would need to be based on long term historical averages of the TMR. The precise specification of the index would need to be laid out in advance, eliminating any scope for judgement in interpreting different sources of financial market data during the price control period.

Transition to CPI must be carefully managed

- 5.62 We understand Ofgem's concern with retaining the Retail Prices Index (RPI) as the basis for price regulation. Clearly, any change in the inflation index to CPI (Consumer Prices Index) or CPIH (incorporating housing costs), used for price setting purposes, should be neutral in net present value (NPV) terms, requiring significant adjustments to the pricing profile over time.
- 5.63 However, there are other concerns arising from a switch from RPI to CPI or CPIH indexation. The loss of the natural RPI hedge for networks financed with RPI index-linked debt (ILD) would be a significant risk. In order to mitigate the risk associated with the loss of RPI hedge for RPI ILD, we recommend a transition arrangement whereby at least 25% of RIIO-2 opening RAV is linked to RPI (reflecting the current extent to which DNOs' existing debt is linked to the RPI), with the remainder linked to the CPI or CPIH.
- 5.64 In order for any change to be value neutral to investors (i.e. no change in present value of net cash-flows), in addition to the adjustments to the allowed return and forecast real total expenditure (totex) allowances, Ofgem would also need to recognise any additional costs associated with any change to the index, e.g. in relation to hedging or debt financing costs.

⁶³ Siegel (1998), "Stocks for the Long Run", McGraw-Hill, second edition, p.11,13.

6 Responses to the consultation questions

6.1 Ofgem's Consultation focuses around chapter headings:

- giving consumers a stronger voice;
- responding to changes in how networks are used;
- driving innovation and efficiency;
- simplifying the price controls; and
- fair returns and financeability.

6.2 In this section, we draw on our analysis in the previous sections to provide responses to the questions posed under each of these headings.

6.3 As a general comment, we would welcome Ofgem setting out in much greater detail how all of these options and proposals would be implemented in practice. Implementation plans will be important to ensure that these options can be fully evaluated so that they do not have adverse unintended consequences. In particular, a number of proposals in the Consultation could introduce significant risk for licensees.

Giving consumers a stronger voice

Introduction

6.4 Providing a voice for consumers is now an integral part of regulatory settlements across all major regulated sectors (energy, water, airports, telecoms and rail). We agree, therefore, with Ofgem's approach of beginning the Consultation Document by reviewing the effectiveness of the consumer voice in RIIO-1 and discussing how it can be enhanced in RIIO-2.

Enhancing existing models

Q1. How can we enhance these models and strengthen the role of stakeholders in providing input and challenge to company plans?

6.5 We agree that consumers and other stakeholders should be given a strong voice, and both companies and Ofgem have made a significant progress in doing this in RIIO-1.

6.6 We have been particularly active in engaging extensively with customers on issues such as its DSO strategy. We were the first DNO to have published a fully costed plan for transitioning to a DSO and was the first to revise its DSO strategy based on stakeholder (including customer) feedback received during the

consultation. We have undertaken other programmes to improve customer awareness, including:

- (a) WPD is the only DNO to publicly provide regional future energy scenarios for all its licence areas and has committed to continuing this on a two-year rolling basis, with each report taking six months to undertake.
- (b) WPD is also the first and only DNO to publish a Distribution System Operability Framework (DSOF)⁶⁴, which describes nine identified issues related with the low carbon transition, the move to DSO and other changes to the way the electricity system is run. We have used this to consult with industry and other stakeholders to raise the profile of some of these issues and seek collaborative innovation projects through its recent open, third party NIA call. It received over 90 projects through this and is taking a number of these forward.

6.7 We agree with Ofgem as to the increased need to engage with customers/users in the preparation of RIIO-2 business plans.

6.8 We welcome the clarity provided in Ofgem's recent 'Enhanced stakeholder engagement guidance', particularly regarding the appropriate composition of a future Customer Engagement Group and its role/scope of influence. As we transition this guidance into practical delivery, we will welcome further discussion with Ofgem as to the development of a detailed engagement framework for network companies, covering issues such as:

- What is an appropriate level of funding for the customer/user group and what should be the governance arrangements around that funding?
- How will Ofgem ensure that there is a consistent approach to the evaluation of licensee's Business Plans by Customer Panels?
- How will network companies' customer/user groups interact with Ofgem's RIIO-2 Challenge Group?

6.9 We are supportive of the requirement for enhanced customer engagement. However, our concern relates to Ofgem's current guidance on the independence of prospective members. In particular, many of those with valuable experience and expertise to input meaningfully into these forums may be conflicted out of doing so due to their previous activities and working relationships with industry parties. We welcome more thorough guidance on the eligibility criteria for members and the reasonable definition of "independence" considering past activities.

⁶⁴ Western Power Distribution's 'Distribution System Operability Framework', September 2017.

- 6.10 It is important that RIIO-ED2 builds on the significant progress achieved in ED1 (and the structure for customer engagement which is now in place) and does not compromise the voice of consumers by constructing an over-complicated system with too many groups or excessive levels of bureaucracy.
- 6.11 Ofgem makes two proposals:
- (a) Requiring companies to set up independent Customer Engagement Groups (in the distribution sector), and User Groups (in the transmission sector);
 - (b) Establishing a single RIIO-2 Challenge Group across both sectors.

We comments on these in turn below.

Customer Engagement Groups

- 6.12 DNOs already have customer engagement groups, and so Ofgem's proposals should be allowed to develop out of these existing groups. Ofgem recognises that companies have already put significant resource into engaging with stakeholders,⁶⁵ but it is imperative that these forums do not lose focus in light of the introduction of additional groups. We welcome Ofgem's guidance that the use of existing stakeholders is permissible, as long as they understand that they are performing a different role (independent challenge) to their previous engagements with DNOs.
- 6.13 Ofgem's own research commissioned from Revealing Reality found the following principles of effective customer engagement:⁶⁶
- Transparency and understanding: articulate what input is required, and the role of the consumer group.
 - Clarity: clear understanding of how consumer input will influence the price control process.
 - Flexibility and confidence: group members will have different levels of initial understanding of the issues, and so a flexible approach is needed to give them the confidence to contribute.
- 6.14 It follows that targeted engagement with stakeholders is key to understanding stakeholder requirements and how business plans can be shaped in response to their needs. In many cases, stakeholders are interested in small incremental areas of expenditure (e.g. undergrounding in areas of outstanding natural

⁶⁵ See Consultation, page 19, paragraph 3.2.

⁶⁶ Ofgem research by Revealing Reality, "Consumer involvement in the price control process", January 2018, page 20

beauty) and therefore tend to provide a view on how these incremental areas should be addressed and funded, rather than the larger expenditure on keeping the networks running. The latter will more appropriately be done by the RIIO-2 Challenge Group, with its greater level of expertise.

- 6.15 There is a risk that Customer Engagement Groups will overlap or conflict with Ofgem's proposed RIIO Challenge Group in areas of significant expenditure and major projects. The remit of the Customer Engagement Groups should be clarified to prevent this happening.

RIIO-2 Challenge Group

- 6.16 The Ofgem Customer Challenge Group fulfilled an important role during the RIIO-1 price controls, using an expert panel of stakeholders to represent customer views. In RIIO-2, this group should continue throughout the price control period so that expert stakeholders can build on their knowledge and ensure that Ofgem always has an independent group of experts available who represent consumer views.

Open Hearings

What are your views on the proposal to have Open Hearings on areas of contention that have been identified by the groups?

- 6.17 We support the approach to having Open Hearings on areas of contention that have been identified through the business planning process.⁶⁷ Ofgem should chair any Open Hearing, take the final decision (within a defined timescale) and specify in advance the circumstances under which a hearing will be required, the scope and objective of the hearing as well as the format and participants.
- 6.18 Whilst we support Open Hearings, Ofgem should be aware that they do not replace careful and considered written submissions, especially on the more complex issues. In addition, certain information will need to be kept confidential, but this should not prevent substantial disclosure and challenge.

Conclusions

- 6.19 WPD supports the development of Customer Engagement Groups in RIIO-ED2 and hopes that these can build upon existing customer engagement where this is already effective within distribution companies. These must have clearly defined scope in order to provide direction to members and build consistency across the sector. The RIIO-2 Challenge Group will also have an important non-overlapping role in allowing review of business plans across all sectors, bringing a whole-system perspective. The role of the RIIO-2 Challenge Group should continue

⁶⁷ Consultation, page 24, paragraph 3.28.

throughout RIIO-2 to provide an informed view on developing issues during the price control period.

Responding to how networks are used

Introduction

6.20 Under this heading the Consultation discusses:

- the length of the price control (on which we have already commented);
- whole system outcomes;
- system operator price controls; and
- network utilisation, stranding and investment risk.

6.21 As recognised by Ofgem, the electricity sector is transitioning with the possibility of radical changes in demand patterns, greater interaction between transmission and distribution networks, and the development of network and non-network solutions to deal with new requirements. This requires RIIO-2 to look across the network sectors (including whole system outcomes) and ensure that the price control regime takes account of cost, benefits and interlinkages across the whole system – not necessarily constrained by current network boundaries. In this context, Ofgem needs to ensure that RIIO-2 price controls provide an expectation of cost recovery, even under the risk of technical change causing falls in utilisation and stranding of assets.

The length of the price control

Q2. Do you agree with our preferred position to set the price control for a five-year period, but with the flexibility to set some allowances over a longer period, if companies can present a compelling justification, such as on innovation or efficiency grounds?

6.22 As set out in Section 5, we believe that an eight-year price control should be retained in ED2. We set out our reasons fully in paragraphs 5.27-5.39.

What type of cost categories should be set over a longer period?

6.23 As set out in our response to Q2 and discussion in paragraphs 5.27-5.39, we do not believe that a move to a five-year price control would be appropriate. Moreover, splitting out different cost categories to allow them to be set over different time periods would represent a move away from the concept of a totex allowance set for specified outputs, which is a core feature of the RIIO framework, towards a system of regulating inputs. We believe that this would be a step backwards.

How could we mitigate the potential disruption this might cause to the rest of the framework?

- 6.24 Having different aspects of a price control on different timescales adds complexity to price control arrangements. Without details on how this would work in practice it is difficult to identify effective mitigation strategies. We believe that the disruption caused by such a move would be significant.

What additional measures might be required to support longer-term thinking among network companies?

- 6.25 See response to Q2, and discussion in paragraphs 5.27-5.39. We believe reverting to a five-year price control would be a retrograde step for longer-term thinking among network companies.

Do you instead support the option of retaining eight-year price controls with a more extensive Mid-Period Review (MPR)?

- 6.26 As described in Section 5, we believe an eight-year price control is more appropriate for an industry with long term capital investments. An important part of the eight-year price control is the MPR. However, as stated by Ofgem in the RIIO handbook:

*"The tightly defined scope of the review will be necessary to manage any risk of undermining the incentive benefits of the longer price control period."*⁶⁸

- 6.27 The role of the MPR must be strictly defined ahead of the price control and it must not become a mini-price review that reopens issues. Otherwise, the benefit of the longer price control, in giving more time for companies to develop plans, and more regulatory certainty for investors, is nullified. Rather the MPR should work within a strictly defined remit, understood by all stakeholders – without destroying investment incentives or investor confidence.
- 6.28 We do not believe that the MPR needs to be significantly expanded. Rather Ofgem should focus on refining the uncertainty mechanisms to deal with any issues that arose in RIIO-1. In the case of RIIO-ED1, we note with respect to UKPN's forecasting challenges that there is already a relevant re-opener mechanism that addresses this point.

⁶⁸ Ofgem (2010), "Handbook for implementing the RIIO model", 4th October 2010, paragraph 11.14, page 93. Available at: <https://www.ofgem.gov.uk/ofgem-publications/51871/riiohandbookpdf>

What impact might the alternative option of an eight-year price control with a more extensive MPR have on how network companies plan and operate their businesses?

- 6.29 As explained above, an extensive MPR effectively becomes a new price review. The benefits of moving from a five-year to an eight-year price review (listed above in paragraph 5.27) would not only be lost, but in fact reversed to a short four-year period.
- 6.30 Above all, any expanded MPR, under which key elements of a settlement may be reviewed, will inevitably create regulatory uncertainty, resulting in a higher cost of equity and asymmetric regulatory risk, as described in paragraphs 4.26-4.35.
- 6.31 The MPR can have a role in updating certain aspects of the settlement as it does now, but this must be very clearly delineated and understood at the time of the settlement.

Conclusions

- 6.32 We believe that in the electricity distribution sector the eight-year price control remains optimal. This could be accompanied by an MPR, but its scope should be tightly delineated to avoid the risk of it turning into a mini price control. At this stage, Ofgem should focus on refining the uncertainty mechanisms to deal with any issues that arose in RIIO-1.

Whole system outcomes

Q3. In what ways can the price control framework be an effective enabler or barrier to the delivery of whole system outcomes?

- 6.33 We agree that there is a need for a greater emphasis on whole system outcomes. The needs of changing electricity demand may, in some cases, be met by changes in the distribution networks, thus foregoing the need for more generation and transmission network capacity. For example, is there an option for storing energy at the edge of the distribution network to even out peak demand, and save transmission costs? This will become apparent when the costs and benefits of alternative solutions to changing demand patterns are considered across all networks.
- 6.34 A key requirement for successfully implementing a whole system operation will be open exchange of relevant information between the transmission and distribution companies, which may be challenging. A further challenge could be the mechanism of sharing costs between regulatory settlements and deciding who settles with the consumer/provider. RIIO-2 must incentivise the decisions of both transmission and distribution companies to achieve optimal whole system outcomes. Clearly, RIIO-2 strategic and investment plans need to look at costs and benefits across the whole system.

What elements of the price control should we prioritise to enable whole system outcomes?

- 6.35 As solutions for transmission issues can in some circumstances be delivered more efficiently by distribution investment, there needs to be clear processes for the treatment of cost transfers to ensure that costs and benefits are aligned. This extends beyond traditional asset solutions to providing cost transfers for facilitating non-network solutions on distribution networks that will assist with transmission issues. These transfers need to be treated on the same basis as if the costs and benefits were solely in either transmission or distribution.
- 6.36 The commercial terms within contracts for balancing services should give due consideration to their impact on the whole system.

If there are barriers, how do you think these can be removed?

- 6.37 Whole system outcomes will only be delivered if there are sufficient data and information provided from all parties to enable the system needs to be understood. The ESO forward looking plan partially addresses better publication of data, but will need to adapt as the depth of knowledge required to understand system needs alters.

Q4. Do you agree with our minded-to position to retain the current start dates for the electricity transmission and electricity distribution price controls, and not align them?

- 6.38 Whilst there are benefits in aligning the start dates in terms of ensuring that incentives are aligned, we recognise the resource constraint that this could lead to and potential delay to the RIIO-T2 implementation.
- 6.39 Equally, maintaining the current staggered start dates of transmission and distribution price controls may have additional benefits when delivering whole system outcomes: any unforeseen impacts hindering efficient delivery by transmission solutions may be corrected in the subsequent distribution price control if these can be economically delivered through distribution solutions.
- 6.40 However, it is important that when developing transmission price controls, Ofgem considers whether new proposals will impact on future distribution price controls and ensures that these impacts are adequately considered. In particular, there needs to be clarity where decisions in earlier price controls will restrict the arrangements that can be put in place as part of RIIO-ED2. An example of this is the work being undertaken via the Charging Futures Forum (CFF) to look at both access and forward looking charging arrangements. The split of charges between forward looking charges that send the correct economic signals, and residual charges that ensure recovery of efficient investment is

important. Forward looking charges will cut across network boundaries, but residual charges will need to ensure cost recovery within companies.⁶⁹

Q5. In defining the term 'whole system', what should we focus on for the RIIO-2 period, and what other areas should we consider in the longer-term?

- 6.41 To enable licensees to develop appropriate RIIO-2 business plans, Ofgem needs to establish whole system scenarios against which the different sectors can make plans. Without such guidance, there is a risk that different sectors make conflicting assumptions, either omitting to include a consideration or duplicating investment proposals. The scenarios should cover changes to both heat and transport as well as assumptions on other demand changes. If these wider issues are not considered in decisions in investment or non-network solutions, then outcomes may not be optimal from a consumer viewpoint.
- 6.42 Whole system should not just focus on delivery of solutions within the transmission and distribution boundary, but also allow for the delivery of solutions behind the meter, should these provide the widest benefits. A number of things are important here: making the best use of Smart Meter investment in shaping consumer behaviour, as well as targeted measures such as insulation, and cross sector solutions that look at options for where the energy is both generated and consumed – and the possibility for bringing these closer together.

Are there any implementation limits to this definition?

- 6.43 None that we have identified.

Conclusions

- 6.44 WPD's view is that RIIO-2 needs to have planning scenarios defined to allow different sectors to develop business plans that do not conflict. In addition, incentives need to be in place for companies to look at the costs and benefits across the entire system when putting in place business plans, to achieve optimal outcomes. As part of this, the CFF needs to focus on how payments and charges for access and use of networks can allow this.

System Operator price controls

Q6. Do you agree with our view that National Grid's electricity SO price control should be separated from its TO price control?

- 6.45 Yes, to not separate the price control would negate the whole purpose of separating the ESO from the ETO. The electricity SO delivers benefits to the industry and consumers by reducing the cost and minimising the risks of

⁶⁹ See https://www.ofgem.gov.uk/system/files/docs/2017/11/tcr_working_paper_nov17_final.pdf

balancing the system. It is essential that it has focused incentives to do this, and this can best be achieved through a separate price control.

Q7. Do you agree that we should be considering alternative remuneration models for the electricity SO?

If so, do you have any proposals for the types of models we should be considering?

- 6.46 We agree with the Consultation that remuneration for reasonable costs would be the right model for the ESO, supplemented with appropriate incentive mechanisms.

Q8. Should we consider alternative remuneration models for the gas SO? If so, why and what models?

- 6.47 No comment.

Network utilisation, stranding and investment risk

Q9. What options, within the price control, should be considered further to help protect consumers against having to pay for costly assets that may not be needed in the future due to changing demand or technology, while ensuring companies meet the reasonable demands for network capacity in a changing energy system?

- 6.48 The uncertainty created by changing demand and structure within the energy system poses a significant risk of lower than planned asset utilisation, and stranded investment.
- 6.49 Ofgem suggests that networks should consider various alternative solutions (including non-build solutions) to reduce the risk of stranded investment.⁷⁰ Issues such as the connection charging boundary, access rights and user commitment are key in providing the right investment decisions or use of non-network solutions to provide capacity in a timely manner whilst not over investing. These are all areas being considered as part of the CFF work on network access and forward-looking charges.
- 6.50 Network companies need to publish data on available network capacity, forecast capacity requirements and hence opportunities for non-network solutions to facilitate efficient network development.
- 6.51 We would expect network companies to be doing this as a matter of course under totex incentive mechanisms. Ofgem also suggests that network companies could be somehow incentivised to achieve high loads on assets.⁷¹ However, this

⁷⁰ Consultation, page 42, paragraph 4.86.

⁷¹ Consultation, page 42, paragraph 4.88.

would not necessarily be in consumer interests if it discouraged a more efficient technology being developed.

- 6.52 Ultimately, despite many helpful developments, investment stranding due to unanticipated⁷² technological change is an unavoidable risk in the sector. Depreciation schedules need to take account of widening risk in later years of an asset's life, through accelerated depreciation. This is the rational economic response.

End-use energy efficiency

Q10. In light of future challenges such as the decarbonisation of heat, what should be the role of network companies, including SOs, in encouraging a reduction in energy use by consumers in order to reduce future investment in energy networks?

- 6.53 Network companies fully recognise that they will play a part in this, and their role needs to be worked out to be consistent with the approach taken in the energy sector as a whole (which includes considering suppliers' obligations for energy efficiency). These will include:
- the use of commercial and smart grid flexibility and development of system operability and whole system coordination; and
 - facilitating the connection of low carbon technologies, particularly low-cost PV, EV and energy storage.
- 6.54 RIIO-2 must, as far as possible, aim to provide companies with the incentives to achieve these things. It will, however also require coordination with wider government policy.

What could the potential scale of this impact be?

- 6.55 The potential scale will depend on achieving a level of coordination between companies, government, and in some cases third parties. The change and development of technology is such that the scale of opportunity is large.

Conclusions

- 6.56 The risk of stranding network assets due to changing technology is very real. The risk can be mitigated by greater future use of non-network solutions, and achieving a greater level of coordination between companies, government and, where appropriate, third parties. However, the risk of stranded assets will remain. As a result, depreciation schedules need to be developed to take account of widening risk in later years.

⁷² Or possible technological change that is uncertain and cannot be relied upon in business plans.

Driving innovation and efficiency

Introduction

- 6.57 The questions in this section deal with the various schemes that have already been introduced to drive innovation and efficiency in the networks, and how they should be developed in RIIO-2. Good progress has been made in RIIO-1, and so in the answers to the questions below we explain where we believe the emphasis of these schemes should lie going forward.

Innovation

Q11. Do you agree with our proposal to retain dedicated innovation funding, limited to innovation projects which might not otherwise be delivered under the core RIIO-2 framework?

- 6.58 Yes, we support Ofgem's proposal. Totex based funding has arguably been one of Ofgem's most important regulatory initiatives, allowing licensees the flexibility to develop an efficient mix between maintenance and renewal of existing systems.
- 6.59 Prior to innovation funding mechanisms being put in place, research type expenditure was very low and focused on activities that would deliver benefits within the price control period and were restricted to R&D as defined by UK tax authorities. This was particularly because there were not sufficient incentives to invest in innovation to cover the benefits external to the company. Furthermore, innovation with whole system outcomes was not incentivised.
- 6.60 The DPCR5 (Low Carbon Networks Fund) and RIIO-ED1 innovation stimulus schemes (Network Innovation Competition, Network Innovation Allowance and Innovation Roll-out Mechanism) have had a significant impact on network companies both in bringing forward innovation projects and in ensuring a culture change within companies. The requirements to share learning have allowed companies to benefit from each other's innovation. This has led to significant advances in the application of new technologies and techniques and the development of skills and capability within the organisations involved. For example, the cultural change required within WPD to successfully transition to DSO would not have been possible without the mature and adaptable ethos developed by successive innovation mechanisms.
- 6.61 As such we believe that the innovation stimulus in RIIO-ED1 has been a success and should be continued in RIIO-ED2.

Q12. Do you agree with our three broad areas of reform: i) increased alignment of funds to support critical issues associated with the energy transition challenges ii) greater coordination with wider public sector innovation funding and support and iii) increased third party engagement (including potentially exploring direct access to RIIO innovation funding)?

- 6.62 Under DPCR5 the Low Carbon Networks Fund (LCNF) was focused on energy transition issues. During RIIO-ED1, we have maintained this alignment of innovation activity. We have run third party tendering processes for Network Innovation Competitions (NIC) projects to be led by third parties for the last two years. We have also extended this process to Network Innovation Allowance (NIA) this year. Accordingly, we agree that the schemes in RIIO-ED2 should give consideration to furthering Ofgem's aims of increased alignment to support energy transition challenges, coordination with wider public sector funding, and increased third party engagement with innovation ideas (but without third party access to funding).

Q13. What are the key issues we will need to consider in exploring these options for reform at the sector-specific methodology stage, including:

(i) What the critical issues may be in each sector and how we can mitigate the bias towards certain types of innovation through focusing on these issues?

- 6.63 In distribution, the critical issues that need development are:
- the use of data and development of this data into useful information for both the development and operation of the network together with information for third parties;
 - the development of commercial processes and facilitation of "neutral markets"⁷³ to use flexibility as an alternative to conventional reinforcement;
 - the use of commercial and smart grid flexibility to develop system operability and whole system coordination;
 - facilitating the connection of low carbon technologies, in particular low-cost PV, EV and energy storage;
 - supporting communities and cities to achieve their sustainability goals; and

⁷³ A 'neutral market' means considering both traditional asset solutions and non-network solutions on an equal basis. It involves factoring in issues such as optionality (e.g. an asset solution may be a sunk investment for 40 years whereas a non-network solution could be contracted for a shorter period of time, making it more valuable when future requirements are uncertain) and designing tenders which do not exclude potential alternative solutions due to the way the tender is designed.

- collaborating with our supply chain to rapidly progress innovative technologies to market at an efficient cost.

(ii) How we can better coordinate any dedicated RIIO innovation funding with wider public sector funding and support (including Ofgem initiatives such as the Innovation Link and the Regulatory Sandbox)?

- 6.64 Public and RIIO funding should be coordinated where they are overlapping in terms of either the issues that they address or to ensure that overall innovation funding is not excessive. This should not be a substantive issue in practice as public and RIIO funding is largely complementary, and public funding is limited in scope (for example, Innovation Link focuses on advice on energy regulation for businesses looking to offer innovative propositions). Overall, innovation should be a responsibility of network operators and assessed as part of the criteria for receiving funds from the Network Innovation Competition (NIC), Network Innovation Allowances (NIA) and Innovation Roll-out Mechanism (IRM) schemes.

(iii) How can we enable increased third-party engagement and what could be the potential additional benefits and challenges of providing direct access to third parties in light of the future sources of transformative and disruptive innovation?

- 6.65 We have already been seeking proposals from third parties to ensure a wide range of options can be considered, and DNOs can be incentivised to further do this through the application assessment criteria of the various schemes.

Q14. What form could the innovation funding take? What would be the advantages and disadvantages of various approaches?

- 6.66 Innovation funding can be granted either on the basis of holding a formal competition between companies to provide the most innovative and market-focused solution or by the funding agency directly selecting companies which have been identified by expert reviewers as having the best innovation strategy (without requesting a formal application for funding). The former may encourage competition to innovate better, but the process could be complex and comes with additional costs of a tender.
- 6.67 Ofgem currently has three schemes:
- NIC for large projects where companies competitively bid;
 - NIA for smaller projects where companies are given an allowance at the beginning of the price control process, based on the quality of the company's innovation strategy;
 - IRM to facilitate roll-out of proven innovations, where companies submit applications to Ofgem.
- 6.68 The NIA approach has the advantage of allowing a more dynamic approach to innovation, whereby companies with a good strategy and track record in

innovation can press ahead with ideas as they emerge within the price control period. The NIC and IRM schemes are restrictive in that bids and applications have to be submitted within the prescribed windows, which can be a constraining factor.

- 6.69 Therefore, we believe that innovation funding broadly based on the NIA approach would be the best way forward (extending to larger projects), but also with an obligation to collaborate both between network companies and with third parties. Given the need to deliver innovation for the energy transition and the need for broadly common processes across the electricity networks, collaboration is increasingly important, such as that being delivered via the Open Networks project. Meanwhile, the competitive element encouraged by the NIC process is becoming less important as Ofgem encourages companies to work together on common solutions. For example, in the 2017 NIC outcome there was a requirement to align the WPD, SSEN and SPN projects.

Q15. How can we further encourage the transition of innovation to business as usual (BAU) in the RIIO-2 period?

- 6.70 This question seems to be based on the premise that innovation, or certain types of innovation, is somehow “free” in the sense that a costless culture change can be made so that innovation can somehow become BAU without any specific funding. We disagree – innovation effort is a function of the incentives to innovate. In a competitive market, innovative firms earn higher returns, and this should be mirrored in RIIO. Moreover, the potential consumer benefits to innovation are increasing, in terms of the scope to reduce costs and improve services, since the production possibility function evolves with on-going changes in technology and demand across energy networks.
- 6.71 Establishing innovation as BAU requires a regime where innovation ideas can be developed in a dynamic way through the price control period (and rewarded on this basis), rather than being constrained to artificial regulatory bidding or application windows. This is an important reason to support the innovation allowance type approach.
- 6.72 The move to a shorter price control would make it less likely that innovative solutions would pay back within the shorter period.
- 6.73 For solutions that deliver DNO benefits, appropriate mechanisms should be in place to allow these costs to be logged up against future settlements.

How can we develop our approach to the monitoring and reporting of benefits arising from innovation?

- 6.74 On monitoring and reporting, it must be recognised that benefits from innovation are rarely attributable to individual projects. More commonly solutions will be developed based on several innovation projects or business as usual trials not necessarily labelled as a separate innovation project. Accordingly, reporting should focus on business outcomes and metrics such as company policy or

standards changes. Furthermore, it should be recognised that the majority of direct benefits from innovation accrue to connecting customers or other parts of the electricity industry. Focusing solely on DNO benefits is not logical.

Conclusions

- 6.75 RIIO-1 has made good progress with innovation stimulus packages. This has allowed Ofgem to itself “innovate” with different schemes. Going forward, we believe that the emphasis should be on an innovation allowance approach (as in the existing NIA) available to companies with a clear strategy and track record on innovation (with the threat that it will be withdrawn in the subsequent price control, or at MPR, if they don’t show evidence of delivery). There should also be an obligation on companies receiving allowance to collaborate and coordinate across companies and with third parties.
- 6.76 The consequential streamlining of the package would contribute to Ofgem’s overall objective of regime simplification.

Competition

Q16. Do you agree with our proposal to extend the role of competition across the sectors (electricity and gas, transmission and distribution)? What are the trade-offs that will need to be considered in designing the most efficient competitions?

- 6.77 See paragraphs 5.11-5.26.

Q17. Do you consider there are any reasons why our new, separable and high value criteria might not be applicable across all four sectors? If so, what alternative criteria might be suitable?

- 6.78 See paragraph 5.13.

Q18. What could the potential models be for early stage competitions (for design or technical solutions)? What are the key challenges in the implementation of such models, and how might we overcome them?

- 6.79 See paragraphs 5.22-5.25.

Conclusions

- 6.80 We believe that in electricity distribution competition is best focused on discrete additions to the network by IDNOs, particularly their work on new connections.

Simplifying the price controls

Introduction

- 6.81 We agree with Ofgem’s desire to simplify the price controls. However, this must be done in a way that retains the integrity of the RAV regulation, compensating

companies for risk, and preserving the correct incentive properties on companies.

6.82 We observe that, whilst Ofgem describes a major theme of its Consultation as 'Simplifying the price controls', many of the proposals would lead to additional complexity. For example:

- Arrangements for refunding costs associated with deliverables that were never necessary will require an ex-post assessment at the end of the RIIO-2 price control that will not get settled until part way through RIIO-3 (Consultation, paragraph 6.17);
- Assessing output performance by using relative performance requires mechanisms to determine and specify how such calculations are to be carried out (Consultation, paragraph 6.19);
- Resetting targets annually requires additional calculations, consultations and mechanisms during the price control (Consultation, paragraph 6.32).

6.83 This would be accentuated with the proposals to shorten the price control to five years. Many of the proposed adjustment mechanisms would be carried out at the same time as development of the RIIO-3 regulatory strategy. As described above, we believe that an eight-year price control should be retained. However, if Ofgem nevertheless decides to revert to a five-year price control, we note that it is less complex, under a shorter price control environment, to have targets fixed and performance measured against absolute fixed targets. Adjustments and enhancements can then be built into the next price control period.

6.84 In the text that follows we comment on the different proposals made in the Consultation and the specific questions raised.

Approach to setting outputs

Q19. What views do you have on our proposed approach to specifying outputs and setting incentives?

6.85 We support the approach to specifying outputs as consumer-facing outcomes. In paragraph 6.12 of the Consultation, Ofgem states it is likely to build upon the six categories specified in RIIO-1 (see Figure 1 of the Consultation).

6.86 Five of the six categories do not need to be changed. We propose that the Environment category is separated into two categories:

- Licensee's environmental impact: impact of network operations on the environment.
- Supporting the energy transition: licensee activities that assist in wider societal objectives to reduce carbon and environmental impacts. This could cover moving to smarter networks and the DNO-DSO transition.

- 6.87 In the Consultation, Ofgem proposes three mechanisms for achieving outputs:
- Licence conditions, specifying minimum service standards, but without direct funding;
 - Price control deliverables, which are funded through revenue allowances;
 - Output delivery incentives, which use rewards/penalties to drive companies to improve service.

6.88 In principle, such separation appears logical, but more details are required to determine whether the selected approach for different output deliverables is appropriate. Specific comments on each of these options are set out below.

Licence Obligations

6.89 Ofgem suggests (in paragraph 6.13) that the enhanced engagement framework will be used to determine which outputs will be specified under licence obligations and what the minimum standards will be. We would expect Ofgem to have strong views on where licence obligations are required and therefore these should be specified as part of the sector specific consultations.

6.90 In paragraph 6.14, Ofgem states that there will be no direct funding for these licence obligations, because they will be met through a combination of activities. It is therefore inappropriate to use the licence obligation approach where there is a direct link between output delivery and expenditure.

Price Control Deliverables

6.91 In paragraph 6.15, Ofgem states that price control deliverables are applicable to company-specific deliverables, which could be measured by using either outputs or inputs. Price control deliverables would be funded through revenue allowances.

6.92 This suggests that price control deliverables will be associated with specified programmes of work. This should be clarified, including how these programmes will be defined and scoped.

6.93 In paragraph 6.16 of the Consultation, Ofgem states that the price control deliverables framework should provide a clear methodology for when an output or input is:

- not delivered;
- delivered late;
- delivered to a lower or different specification.

- 6.94 This suggests a one-way negative adjustment which will add to asymmetric risk, the consequences of which are discussed elsewhere in this response (particularly see paragraphs 4.29-4.31). To guard against this, if the framework is to be adopted (rather than simply considering under-delivery), it should also provide a clear methodology for when an output or input is:
- over-delivered;
 - delivered early (subject to our comments in relation to timing below);
 - delivered to a higher specification.
- 6.95 Within electricity distribution there are some programmes of work (e.g. maintenance) where there is a high volume of low-cost activity. It would be a complex and expensive task to specify the timing and specification of each individual activity. Therefore, it is not appropriate to have detailed adjustment mechanisms for work specification for all investment activities.
- 6.96 The timing of delivery should be at the discretion of licensees within the price control period. Making adjustment for delivery timing ties licensees to specific annual delivery profiles, which may not be the most efficient way of delivering the work. Price control deliverables should apply to the outputs or inputs across the price control period, not specific years.
- 6.97 The introduction of adjustments for under-delivery would appear to deny the flexibility that networks currently have to amend work programmes to meet changing needs. Previous price controls have been set using a combination of detailed disaggregated benchmarking and high-level cost driver modelling. This has resulted in allowances 'in the round' for licensees to carry out their activities. Applying clawback mechanisms to specific price control deliverables will 'cherry-pick' allowance reductions and will also add further complexity (and costs). Any allowance reduction mechanism should be complemented with allowance increase mechanisms to compensate licensees that re-balance investment programmes to deliver more activity in other price control deliverables.

Output Delivery Incentives

- 6.98 Ofgem suggests that improvements achieved through work funded by revenue allowances will not be subject to rewards under incentive mechanisms. Network performance is influenced by many factors. These factors are interrelated and it is therefore difficult to separate out any one specific activity to determine its impact on overall performance measures. We suggest that it is impractical to isolate the effect of individual output delivery programmes, because it is impossible to accurately determine the impact (e.g. shrinkage/customer minute lost) of the leak/fault that was prevented and did not happen. Network performance targets should represent the impact of all activities and should be used as a measure to determine how well licensees have focussed their asset

management activities on improving customer service, as well as delivering price control deliverables.

- 6.99 Paragraph 6.22 suggests that companies that have performed poorly in the current price control should be required to improve their performance in RIIO-2 without additional revenues. This proposal leads to an additional penalty on companies over and above the penalties specified in RIIO-1. Unless such a treatment was established in existing RIIO-1 licence conditions, it should not be applied because it changes the incentives specified as part of the RIIO-1 price control. Such changes to price control arrangements only serve to increase risk for companies, particularly where they have not been specified as part of price control settlements.
- 6.100 Furthermore, the practical implementation of such mechanisms is complex. Future price controls are settled ahead of the end of current price controls. This means that revenues will be set for RIIO-2 before final performance for RIIO-1 is known. Applying this proposal would require an ex-post reduction to RIIO-2 revenues commensurate with the activity value associated with under-delivery of service quality. The application of an ex-post reduction adds complexity and the approach to valuation of under-delivery is not defined.

Reputational incentives

- 6.101 Ofgem also suggests it may use reputational incentives where data does not support setting financially-incentivised targets.⁷⁴ This approach is not new and has been a feature of 'league tables' published in annual reports. Ofgem does not specify whether the use of reputational incentives will be similar to those under the existing price control regime or whether the scope will be extended. We suggest that Ofgem makes use of its enhanced stakeholder engagement framework to determine what comparators provide value for stakeholders.

Existing output measures

- 6.102 Small scale connections are subject to the Time to Quote (TTQ) and Time to Connect (TTC) incentive measures. Whilst TTQ is a valid measure of how quickly licensees respond to enquiries. On the other hand, TTC does not represent what customers want. Customers want a timely connection (when they want it), not a quick connection having paid for it.
- 6.103 The Interruptions Incentive Scheme (IIS) which has been in place since 2001 has been particularly effective in delivering improved reliability. However, the setting of IIS targets should be reviewed such that the weighting in favour of

⁷⁴ Consultation, paragraph 6.24.

DNOs' own performance is reduced. This is because DNOs have progressively improved processes and systems for managing faults across all voltage levels.

When might relative or absolute targets for output delivery incentives be appropriate?

- 6.104 Ofgem proposes to use output delivery incentives where companies provide service quality improvements beyond the minimum standard. We agree that there should be strong incentives for companies to improve service levels.
- 6.105 In paragraph 6.19 of the Consultation, Ofgem considers the introduction of relative performance being used to determine whether rewards or penalties are obtained and cites customer satisfaction scores as an area where this could be used.
- 6.106 We have already discussed this in paragraphs 5.45-5.48 above ("Competition in the market"). Relative performance gives no certainty to either the company or its customers because the outcome is unknown until the final results have been processed. Such uncertainty reduces the incentives to make investments to exceed targets, since any incentives or penalty payments are uncertain as the targets will be moving and uncertain. For example, it potentially penalises companies that may have made significant improvements to service; but because others have done even better, the company is hit with a penalty. Relative performance assessment should therefore not be used.
- 6.107 Part of Ofgem's motivation for considering relative performance may be the perceived information deficit it has in setting appropriate absolute targets. Given experience in RIIO-1, Ofgem and the network companies are now in a much better position to (1) establish reasonable and meaningful output targets for RIIO-2, and (2) gauge customer willingness to pay any associated financial incentives through stakeholder consultation than they were prior to the RIIO-1 price control periods. As a result, RIIO-2 should provide better calibration of output targets and associated financial penalties and bonuses. This view is shared by Ofgem's consultants CEPA who state:

*"However, going into RIIO-2 Ofgem should have better information on network companies' performance against output measures than in [sic] did at the RIIO-1 reviews. It would have also had more time to work with stakeholders to define what the key outputs are, how to best measure them, and what standard of performance is expected."*⁷⁵

- 6.108 In paragraph 6.11, Ofgem refers to the CEPA recommendation to consider relative targets. We assume that this is different to the use of relative

⁷⁵ CEPA, "Review of the RIIO framework and the RIIO-1 performance", Final report to Ofgem, March 2018, p.48.

performance assessment stated in paragraph 6.19 of the Consultation. Relative targets suggest that companies will be set targets relative to historic performance (e.g. as per disaggregated benchmarking used to set Customer Interruptions (CI) and Customer Minutes Lost (CML) targets) rather than targets being fixed values for all licensees (e.g. customer survey target in ED1). The form of relative targets is unspecified. It is unclear whether these relative values are established at the start of the price control or whether relative performance during the price control determines the incentive value. We have no objection to DNOs' relative performance being used to set absolute targets that are fixed over the price control period.

- 6.109 For absolute targets, Ofgem proposes to set stretching targets for individual companies, taking account of their historical performance. It is unclear whether the stretch relates to companies that have previously done well or those that have performed poorly against absolute targets. We would expect Ofgem to carry out appropriate benchmarking analysis to determine what level of performance represents a stretched view and apply this level of performance to all licensees equitably. Ideally, all companies will be set the same performance targets, giving a stronger challenge to poorer performing companies to raise their standards.

What impact would automatically resetting targets for output delivery incentives during a price control have? Which outputs might best suit this approach?

- 6.110 In paragraph 6.20 of the Consultation, Ofgem proposes mechanisms to automatically recalibrate targets to stretch levels during the price control. Such recalibration will erode the value of incentive returns, because they will time limit the incentive benefit from making improvements to service. This may lead to licensees not adopting improvements where the costs outweigh the short-term incentive returns. Recalibration should not be adopted during the price control, particularly if the price controls are shortened to five years.

Our approach to setting cost allowances

Q20. What views do you have on our general approach to setting cost allowances?

- 6.111 Cost allowances should provide a balance between funding costs at an efficient level and giving companies an opportunity to outperform those allowances through seeking efficiencies. Where genuine outperformance is delivered, both companies and customers should benefit, and thus we support the continuation of the use of a sharing factor.
- 6.112 Within the proposals, Ofgem suggests the expansion of the use of uncertainty mechanisms. Wherever possible, these should be mechanistic to avoid additional regulatory burden for both companies and Ofgem, and protracted end-of-period cost assessments that extend into the RIIO-3 price control.

- 6.113 We expect that the majority of cost allowance for distribution activities will be set within baseline allowances. Many investment activities have established reporting structures that reveal incurred costs to enable cost benchmarking for setting future cost allowances. We agree that companies should be incentivised to outperform these allowances.

Volume drivers

- 6.114 Ofgem suggests that volume drivers should be used where costs are stable, but volumes are uncertain. This generally applies to higher volume activities, such as the repair of defects in DNO equipment that are identified as part of the smart meter rollout.
- 6.115 Going forward into RIIO-2, the decarbonisation of energy may lead to different types of activity being uncertain. This would lead to a larger proportion of costs being associated with volume drivers. It should be noted that volume drivers inherently transfer an element of risk to consumers, and Ofgem will wish to consider the overall potential volatility in charges that may emerge as consumers prefer stable prices.
- 6.116 Where these are applied, it is important that Ofgem and DNOs agree to assumed base levels of activity that are factored into base allowances, and subsequently adjusted as actual volumes are known. This approach limits the impact on DUoS charge volatility because the DUoS charge changes only relate to adjustments of volumes, not wholesale funding of the total activity.

Revenue drivers and Strategic Wider Works

- 6.117 Revenue drivers assume that there is a link between the amount to be funded and the measure used as the revenue driver. For example, additional reinforcement funding is allowed if maximum demand increases. For such mechanisms to adequately fund licensees' activity there has to be a strong established relationship between the costs and the driver. This will not be the case for many situations, because specific network topology and utilisation will dictate the requirements rather than global measures.
- 6.118 Strategic wider works are specifically used in transmission where projects may be required in the future but, due to uncertainty, no funding is provided. The strategic wider works assessments allow projects to be brought forward when the need becomes more certain. This mechanism is more appropriate to projects with greater uncertainty.
- 6.119 There is scope for a further category of 'certain projects with uncertain costs'. As described in paragraph 3.23, at present in electricity distribution there is an uncertainty mechanism used for load related expenditure that operates around a +/-20% band. Licensees can apply for the costs that exceed the upper band to be funded and Ofgem can claw back costs below the lower band. A similar

approach could be used for other 'certain projects with uncertain costs'. For these projects an allowance could be set based upon reference costs for similar work content. This would provide the baseline funding such that further adjustments minimise DUoS charges volatility.

- 6.120 For RIIO-2, we support the use of appropriate revenue drivers or the strategic wider works approach used in RIIO-T1 to give more certainty to the company's requirement to finance these projects – as proposed by Ofgem in paragraph 6.28 of the Consultation. This is in view of the experience of rail electrification where no outputs were agreed and WPD bore the risk of increases in the scale of rail electrification, but ultimately returned unused allowances.

Q21. What views do you have on our intention to index RPEs?

- 6.121 Although, as we have previously shown (see paragraph 3.21), cost allowance forecasts have been reasonably accurate in the case of the RIIO-ED1,⁷⁶ the large underspends in T1 and GD1 have been attributed in part to RPEs. As such, the indexing of RPEs in cost allowances could be helpful in bringing greater accuracy to cost allowances with respect to both over and under performance.
- 6.122 The main consideration for this proposal is the selection of an appropriately representative index which protects both customers and companies.
- 6.123 We disagree with Ofgem's suggestion that RPEs could be set at zero (paragraph 6.28, bullet three), because this will provide no protection to companies in the event of increased RPEs. Whilst RPEs may be observed to be low at a point in time, this does not mean that such a situation will remain into the future. For example, the low wage growth currently observed is unlikely to be a long-term economic phenomenon.
- 6.124 Therefore, if Ofgem is to use indexation for RPEs, an appropriate index should be selected that represents the efficient costs actually incurred by companies. When Ofgem consulted on the RPEs to be used for the slow-track in RIIO-ED1 settlements, there was no one index that provided a complete view of RPEs. Ofgem elected to use a range of different indices to establish ex-ante RPE allowances. No indexation was adopted.
- 6.125 In the Consultation, Ofgem does not indicate how RPEs will be indexed, but suggests that further work is required. This work has to be considered as part of sector specific RIIO-2 methodologies. The success of this, therefore, will depend critically on finding appropriate indices, and we look forward to working with Ofgem on this.

⁷⁶ Although less so in the cases of RIIO-T1 and RIIO-GD1.

Q22. What impact would resetting cost allowances based on actual cost performance (e.g. benchmarked to the average, upper quartile or best performer) during a price control have? Which cost categories might best suit this approach?

- 6.126 As discussed in paragraphs 5.47 and 5.48, resetting cost allowances in this way is likely to reduce incentives to outperform across the whole sector. Our view is that such a strategy should, therefore, be avoided.

Conclusions

- 6.127 Ofgem makes a number of proposals for setting output targets and cost allowances. Whilst some seem worthwhile (e.g. indexing RPEs to relevant indices), all should be seen through a lens of simplification.

Information-revealing devices

Introduction

- 6.128 The IQI scheme was a major innovation by Ofgem. Although we understand that Ofgem now has reservations over its effectiveness, we nevertheless believe that the core of the scheme remains valid and can form the basis for a similar scheme in RIIO-2. In the following text, we directly answer Ofgem specific questions on the scheme.

IQI

Q23. Do you agree with our assessment of IQI?

- 6.129 In paragraphs 6.33 to 6.51 of the Consultation, Ofgem discusses the effectiveness of the IQI scheme in incentivising companies to set stretching but realistic totex efficiency targets.

IQI is effective

- 6.130 The principles of the IQI are sound (as discussed at paragraph 5.42). Rewarding companies that achieve low IQI ratios (through additional income and higher incentive rates) and penalising those with high IQI ratios (through penalties and lower incentive rates) is a logical incentive mechanism that should drive licensees to provide efficient business plan forecasts and to deliver to those forecasts.
- 6.131 However, Ofgem suggests that there is little evidence that the IQI scheme sufficiently influences company behaviour to submit business plans that reflect the best estimate of their likely efficient expenditure.⁷⁷ It is true that the IQI

⁷⁷ Consultation, page 65, paragraph 6.38.

mechanism tends to be tuned in a manner that means that company proposals have to be very close to the Ofgem benchmarked view in order to earn a reward; but, this in itself should drive companies to strive to submit efficient plans.

- 6.132 It could be argued that the strength of the reward part of IQI should be enhanced, because based upon the RIIO-ED1 slow track final proposals all DNO groups were given a penalty with IQI ratios ranging from 103.8% to 113.4%.
- 6.133 In paragraph 6.45, Ofgem suggests that businesses/managers have other priorities that lead to higher cost business plan forecasts being submitted. We provide our response to this in the context that we have a track record of delivering excellent customer service at an efficient cost, and this was reflected in the fast-tracked RIIO-ED1 business plan submission that also included further efficiency improvements during the price control.
- 6.134 Some of Ofgem's reasons for companies not putting forward efficient business plans can be viewed as being somewhat dubious. The references to "*management incentives to beat targets rather than maximise profits*"⁷⁸ suggests that Ofgem believes that managers will deliberately set high cost targets, so that they can demonstrate outperformance, and do this at the expense of company profits. This seems unlikely to us. Moreover, Ofgem should be able to mitigate against this by comparing the forecast costs with revealed actual costs from annual reporting; Ofgem should not rely upon the forecast alone.
- 6.135 Ofgem's statement that "a belief that their forecast can influence our view of costs"⁷⁹ suggests that Ofgem considers higher costs submissions in setting benchmark values. This is only the case to a limited extent for distribution because Ofgem tends to select the upper quartile value (where there is good comparability) and average (where there is less comparability) for determining the benchmark costs. In any event, interpolation (where the final view of costs is determined from 75% Ofgem view and 25% company view) will mean that company forecasts (particularly higher cost ones) will only have a limited effect on the overall allowance values. For transmission, Ofgem should make greater use of revealed costs, or seek comparators from distribution activity.
- 6.136 It is sometimes said that the IQI system relies on assumptions that network companies are risk neutral (i.e. they view the possibility of a £1m reward equally to the risk of a £1m penalty).⁸⁰ We agree that this assumption does not hold; there is strong empirical evidence that investors in general place a greater weight on downside losses than upside gains. However, this is not a reason to

⁷⁸ Consultation, page 67, paragraph 6.45.

⁷⁹ Consultation, page 67, paragraph 6.45.

⁸⁰ CEPA, "Review of the RIIO framework and RIIO-1 performance", Final report to Ofgem, March 2018, page 76.

abandon IQI, rather it is reason to work further on its calibration to more accurately capture investor valuations of upside and downside risk.

- 6.137 It is also said that IQI relies on the assumption that the allowed rate of return (or more precisely the expected rate of return in the terminology of the UKRN Expert Group on cost of capital) is equal to the companies' actual cost of capital⁸¹. However, this assumption underlies the whole of the regulatory settlement process and is not unique to the IQI scheme. A fundamental task of regulators is to align the regulatory expected return with the companies' cost of capital, and this will be true in all options for RIIO-2.

IQI is not over-complex

- 6.138 Ofgem says that the IQI scheme is complex.⁸² However, the core mechanism is a simple comparison of the licensee's forecast business plan costs against an Ofgem view of allowances. The process leads to three variables being set under the IQI scheme: the allowances, the reward/penalty for the business plan forecast and the sharing factor for under/over spending during the price control. Compared to some other price control mechanisms, these are not complex issues.

But IQI can work better in future

- 6.139 We do not believe that the concept is flawed; rather that the calibration of the system needs refinement based on the RIIO-1 experience. Ofgem's principal concern appears to be that it is not able to set a completely independent baseline forecast, against which IQI is measured. Whilst this may be true with the limited number of companies in the transmission sector, it does not hold for distribution where there is more scope to benchmark companies and enable Ofgem to determine an efficient baseline, as we discussed above.
- 6.140 Ofgem suggests that one of the reasons for considering changing the IQI arrangements is due to information asymmetry, suggesting that companies try to use information asymmetry to receive more generous allowances.
- 6.141 Within this argument, Ofgem fails to recognise the vast amounts of data available from annual reporting by the licensees that reveals companies' actual costs and activity volumes. This data provides a rich source of information that allows Ofgem to judge whether the forecast business plans are representative of observed costs and volumes. The information is particularly relevant for activities that are carried out routinely (e.g. asset replacements, faults, maintenance,

⁸¹ CEPA, "Review of the RIIO framework and RIIO-1 performance", Final report to Ofgem, March 2018, pages 76 and 77.

⁸² Consultation, page 67, paragraph 6.44.

business support costs, etc.) that make up the vast majority of costs for network companies. As noted at paragraph 5.44, Ofgem's fears over establishing an efficient baseline can be mitigated by indexing real price effects.

- 6.142 Information asymmetry is more likely to arise for new programmes or one-off large-scale investments and therefore only impacts a small proportion of the cost base for distribution companies. Information asymmetry is therefore less of an issue than Ofgem suggests.
- 6.143 In any event, information asymmetry (and forecasting errors) is penalised by IQI, not incentivised given the goal is to get close to Ofgem's view of costs.

Q24. Do you agree with our assessment of fast-tracking?

- 6.144 In paragraphs 6.52 to 6.82 Ofgem discusses the future of the fast-track scheme. We agree with Ofgem that the benefits of fast-tracking in RIIO-ED1 exceeded the costs.

Benefits of the fast-track scheme in ED

- 6.145 All customers in the distribution sector can be expected to have gained from the competitive pressure put on all companies via fast-tracking, both in their initial submissions before the result of the fast-tracking was revealed, and in their subsequent response in resubmitted business plans to the fast-track benchmark, even though they initially failed to reach the fast-track hurdle. CEPA quantifies a significant net benefit to consumers from the RIIO-1 fast-track process in the distribution sector.⁸³
- 6.146 Beyond the effects quantified by CEPA, we directly benefited from being removed from the process at an earlier stage, allowing management to concentrate on delivery of the ED1 outputs, service quality gains, and efficiency savings. These benefits are being, and will continue to be, felt by our customers.
- 6.147 As the only DNO to be awarded fast-track status, we recognise the significant benefit to the delivery of work programmes and service improvements to customers an early settlement affords. Having obtained an early settlement, we could divert senior management focus onto the delivery of our business plan commitments, as has been demonstrated by the higher levels of expenditure compared to some companies that have deferred activity from the start of the ED1 price control.
- 6.148 We are surprised that Ofgem cites risk of process errors and providing insufficient scrutiny of business plans as reasons to abandon the early

⁸³ CEPA, "Review of the RIIO framework and RIIO-1 performance", Final report to Ofgem, March 2018, p.69.

settlement. Licensees and stakeholders would expect Ofgem to establish robust analysis processes as part of fast-track and slow-track evaluations. Time constraints, insufficient resources or inadequate experience of staff available to Ofgem should not dictate the principles of fast-tracking.

Benefits in other network sectors?

- 6.149 The key to fast-track scheme success in the distribution sector was having a sufficient number of companies to compare, thus allowing Ofgem to form a view of where the fast track threshold should be placed. We agree with Ofgem that, while this is certainly possible in the distribution sector (particularly electricity distribution), there are insufficient companies in the transmission sectors to allow a fast-track hurdle to be reliably identified.

Q25. What are your views on the options we have described? How might these apply in the different sectors? Should we retain the IQI, amend it or replace it entirely?

Option 1 – Retain but amend IQI

- 6.150 Under this option, Ofgem proposes two possible approaches:
- Strengthening the incentive value;
 - Removing interpolation and enhancing the rewards/penalties.
- 6.151 Recalibration of the IQI matrix, so as to provide a stronger incentive for companies to provide more efficient business plans forecasts, could lead to more cost-efficient plans being proposed. However, it should be noted that there is a tension between putting forward a stretching business plan to gain an IQI reward and being tied to a high sharing factor. Some companies may consider whether forecast business plans are deliverable, and therefore pitch a business plan at a more realistic level, rather than an optimistic level. Reducing cost forecasts too far in order to obtain an IQI reward, could mean that the company cannot meet its forecast levels of cost, incurring over-spending and higher sharing factor penalties. Ofgem should therefore be mindful, that an enhanced IQI incentive could lead to cost efficient realistic plans being submitted, rather than stretching plans being submitted.
- 6.152 Removing interpolation would mean that allowances would be wholly reliant upon the accuracy of Ofgem benchmarking. Ofgem indicates this would remove the potential for licensees to act in a perverse manner, by submitting a very high cost business plan in order to have around one quarter of it count towards final allowances. There does not appear to be sufficient evidence to suggest such perverse behaviour takes place, because no company proposes a business plan that has a, say, 200% IQI ratio (e.g. in RIIO-ED1 the highest IQI ratio was 113.4%). Therefore, basing allowances wholly on Ofgem benchmarking appears to be an unnecessary fix.

Option 2 – Retain fast-tracking

6.153 Under this option, Ofgem considers that there are two problems:

- There is a risk that the level of financial reward of fast-tracking ends up being higher than expected;
- The fast-track process puts additional resource and time pressure on Ofgem and there may be greater benefit for consumers for using this additional resource to carry out further assessment of the plans.

6.154 Whilst the financial reward, early settlement of price control, higher sharing factor and the kudos associated with fast-tracking, should be adequate incentive to put forward cost efficient business plans, the possibility that other financial benefits⁸⁴ could arise should further enhance licensees' eagerness to put forward cost efficient business plans. This positive opportunity for licensees should go a long way towards achieving Ofgem's objective of having the most accurate and complete business plan submissions.

6.155 It should also be remembered that there were risks for WPD in our fast-track settlement. For example, our regulatory cost of debt remained indexed to a 10-year moving average, rather than the trombone mechanism that more accurately modelled DNOs' actual cost of efficient debt, losing WPD a forecast £137m of revenue over the course of RIIO-ED1.⁸⁵

6.156 As regards the additional resource implications for Ofgem, throughout the RIIO-2 framework, Ofgem is proposing a range of additional mechanisms that will lead to further regulatory burden for both companies and Ofgem. Companies and Ofgem are both expected to put sufficient resources in place to enable sufficient evaluation of business plans under fast-track and slow-track timetables. The availability of resources should therefore not be a consideration for abolishing fast-tracking.

Option 3 – Single business plan incentive

6.157 Ofgem suggests that a single business plan incentive could combine features of both fast-tracking and the IQI. Essentially this is what happened in electricity distribution for RIIO-ED1 where the fast-track rewards was an enhanced reward compared to the IQI (provided in lieu of an IQI reward) and the fast-track company obtained a higher sharing factor.

⁸⁴ For example, greater debt investor confidence once a fast-track deal has been secured.

⁸⁵ See WPD, "Response to Ofgem's Consultation on Mid-Period Review", 1 February 2018.

6.158 The proposal to have a reward for 'best plan' would retain the kudos element of the incentive to submit a well-justified business plan.

6.159 However, a significant downside to this proposal, as an incentive for companies, is the removal of settling company plans early. This would remove one of the most significant benefits of the current fast-tracking process (for both companies and customers); it would remove the scope for company management to move their attention to delivery of the plan. Accordingly, we believe an early settlement option should be retained.

Q26. What factors should we take into account when assessing plans for example, under fast-tracking (option 2) or a single business plan incentive (option 3)?

6.160 In the Consultation paragraph 6.28 bullet 2, Ofgem states that:

"We propose to improve the quality of company forecasts by using simplified incentives to reward well-justified, ambitious and high quality business plans."

6.161 The factors should therefore be based around this proposal. The factors are the same irrespective of whether option 2 or option 3 is adopted.

6.162 In RIIO-ED1, Ofgem used the following criteria to determine whether a company's business plan was fast-tracked.

Table 4: Ofgem's assessment criteria in RIIO-ED1

Process: Has the DNO followed a robust process?

Is the business plan clearly presented, with all key content included?

Has the DNO engaged with stakeholders, and explained how this has influenced its business plan?

Has the DNO submitted, and justified, all data tables and the PCFM?

Does the business plan provide a strategy for long-term delivery?

Outputs: Does the plan deliver the required outputs?

Has the business plan covered the outputs specified in our Strategy decision or provided clear and compelling justification for any departures from the Strategy decision?

Has the DNO explained the resource implications for delivery of each output identified?

Has the DNO explained how it will deliver outputs, and justified output baseline/forecast?

Has the DNO explained the quality of its existing outputs and secondary deliverable information (including information on asset health, criticality and asset risk) and how it plans to improve this information in future?

Resources (efficient expenditure): Are the costs of delivering the outputs efficient?

Has the DNO demonstrated that cost projections are efficient?

How does the plan compare with others/does it reflect wider best-practice?

Has the DNO demonstrated that their financial costs are efficient?

Has the DNO explained cost projections in context of historical performance?

Has the DNO demonstrated a consideration of alternative approaches to achieving value for money in the delivery of its outputs?

Has the DNO clearly linked its expenditure to relevant outputs and secondary deliverables?

Resources (efficient financing): Are the proposed financing arrangements efficient?

Does the business plan conform with the financial policies specified in the strategy, are any departures well-justified?

Has the DNO provided evidence that financial costs are efficient?

Is the data in the plan consistent and has the DNO explained cost projections in context of historical performance?

Uncertainty & risk: How well does the plan deal with uncertainty & risk?

Has the DNO clearly articulated the key uncertainties it faces and considered how it will address them (e.g. including uncertainty mechanisms)?

Has the DNO considered risk and how to mitigate those risks?

Source: Ofgem, Assessment of the RIIO-ED1 business plans, November 2013, Table 2.1

- 6.163 This framework is a useful starting point for the assessment criteria and can be refined in line with the conclusions of the RIIO-2 framework Consultation. We would expect Ofgem to specify these factors as part of the RIIO-2 framework conclusions.

Q27. Do you have any views on the factors we should take into account when deciding how to differentiate efficiency incentives for companies if we do not use the IQI?

- 6.164 There is no alternative to using IQI, other than reliance on fast-track incentives alone.
- 6.165 However, as we have said above, the fundamental operation of the IQI is sound. The comparison of business plan costs against an Ofgem view will be an integral part of any replacement or amended mechanism.

Q28. Is an explicit upfront financial reward required to incentivise companies to submit high quality business plans, in addition to differential incentive rates or sharing factors?

- 6.166 Yes. The availability of an upfront reward is a significant 'carrot' for companies to seek to provide an efficient business plan forecast.
- 6.167 In electricity distribution the fast-track reward was provided in lieu of an IQI reward. In fact, the fast-track reward can be viewed as being an enhanced form of IQI reward. The IQI provides higher sharing factors for more efficient forecasts, and therefore a fast-tracked efficient business plan should provide the highest sharing factor.

Q29. Do you have any views on our proposal to remove fast-tracking for transmission?

- 6.168 As explained above, we have concerns on the value of fast-track for transmission, because of the lack of comparators.
- 6.169 If it is mainly influenced by the need to have an efficient cost forecast, then the absence of adequate comparators means that it is difficult to determine whether transmission business plans are as efficient as they could be. In this case, it may be appropriate to remove fast-tracking.
- 6.170 If fast-tracking is aimed to influence companies to provide well-justified business plans, with a balanced influence from the cost forecasts, it may be appropriate to retain fast-tracking for transmission.

Q30. Do you have any views on how we propose to incentivise better business plans from transmission companies, including removing the prospect of an upfront financial or procedural reward and placing greater reliance on user and consumer engagement and scrutiny?

- 6.171 The use of stakeholder engagement is important to gain an understanding of stakeholder requirements. However, most stakeholders are focussed on their own businesses and have limited time and resources available to understand the full range of activities, costs and outputs associated with a price control. This means that whilst stakeholders can influence plans, they may not be in a position to scrutinise plans effectively. Such scrutiny should be carried out by Ofgem.

- 6.172 Using stakeholder feedback alone does not necessarily lead to an incentive for companies to provide efficient business plans.
- 6.173 An upfront reward provides a strong incentive for licensees to provide well-justified and efficient business plans.

Conclusions

- 6.174 The combination of IQI and fast-tracking (especially of distribution networks where business plans can be directly compared across multiple companies) has served well in RIIO-1. In the previous paragraphs we have suggested that the IQI scheme in particular could be refined, and to a certain extent will perform better in RIIO-2 because of greater experience by both Ofgem (in settling baselines and parameters) and the companies (in responding to incentives of the scheme).
- 6.175 We see no reason to abandon the IQI scheme, nor to abandon fast-tracking for the distribution network companies.

Annual reports/reporting

Q31. How can we best improve the suite of annual reporting requirements to be as efficient and useful as possible?

- 6.176 Annual Regulatory Instructions and Guidance (RIGs) reporting should be of sufficient detail to provide Ofgem with an explanation of what is driving expenditure in the current price control and provide the basis of revealed information for establishing allowances for the following price control.
- 6.177 Stakeholder reports, published by Ofgem, should focus on the headline performance of companies. There should be ample data available from annual detailed data submissions to readily provide summary information for stakeholder facing reports.

Q32. How can we make the annual reports easier for stakeholders to understand and more meaningful to use?

- 6.178 This question is best answered by stakeholders. Ofgem needs to find out what information stakeholders want to know and to what purpose that data is to be used.
- 6.179 It may be the case that whilst Ofgem has made moves to obtain strategic insights into company performance, these reporting mechanisms are in their infancy and are not yet sufficiently embedded and robust to provide comparative explanations of variances.

Conclusions

- 6.180 All reporting should have a purpose. Ofgem should view reporting requirements through this lens.

Fair returns and financeability

Introduction

- 6.181 This section of the Consultation covers a number of critical areas: cost of debt, cost of equity, and financeability. Cost of equity and financeability are two related subjects over which we have particular concerns. We also cover, in brief, our concerns with Ofgem's proposals for restricting incentives for high returns, which we have already considered in section 5.

Cost of debt

Q33. What are your views on the policy objectives that we have defined with respect to the cost of debt?

- 6.182 The allowance for the cost of debt must:
- Provide incentives for companies to efficiently finance their debt;
 - Accurately capture the efficient cost of debt for companies as a whole in the relevant network sector, given their expected credit rating, capital requirements, maturity profiles, and issuing costs;
 - Not require undue intrusion by Ofgem into companies' individual financing decisions (such as would be necessary in cost pass-through).
- 6.183 Our view is that these conditions are best met by a well calibrated index modelling the cost of all embedded and new debt in the relevant sector (see answer to next question).

Q34. Which option might help to ensure that the approach to updating the cost of debt methodology delivers best value to consumers and why?

- 6.184 Our view is that a well calibrated external index for the overall cost of new and embedded debt best meets consumer interests.
- 6.185 A fixed embedded cost of debt allowance based on the industry average with new debt costs compensated by an index, or a cost of debt pass-through, are less likely to meet Ofgem's objectives, and are likely to be more costly and intrusive as they require an investigation of companies' actual costs, and may blunt incentives to minimise debt costs (notably in relation to the pass-through option).
- 6.186 However, the relative merits of the different options may be reversed if the RIIO-ED1 mechanisms is poorly calibrated and does not allow companies to recover efficient costs.

Cost of equity

Q35. Do you agree with our proposed methodology to estimate the cost of equity?

- 6.187 No. As we discuss in paragraph 5.54, and explained in the attached NERA report, CEPA has not properly addressed the evidence on Total Market Returns (TMR). Furthermore, in their analysis of asset Betas they have drawn incorrect conclusions based on the water sector (which is not directly comparable to the energy sector) and have not arrived at an appropriate Beta for National Grid's GB operations, since they have not adjusted for its lower risk US operations. As a result, the asset beta value they adopt is not consistent with empirical evidence from the UK electricity sector. They have, therefore, incorrectly judged both of the main components of the cost of equity.

Q36. Do you agree it would be desirable to index the cost of equity?

- 6.188 No, we do not. There is no reason to depart from Ofgem fixing a cost of equity allowance for the whole price period. The underlying cost of equity is not as volatile as CEPA's analysis purports, whilst basing an index on questionable estimates of forward looking dividend growth models would only result in potentially spurious volatility.

Do you have views on our proposal for indexation?

- 6.189 As stated above, we do not support the suggestion that there should be cost of equity indexation. However, our view is that, if cost of equity indexation is nevertheless to be introduced, it should be based on long run historical averages of total market returns.
- 6.190 This will have the added benefit of reducing spurious price volatility for consumers. Whilst indexing to historical data would presumably give a stable index, formalising a linkage to the output of a DGM could give unstable results. Annex E of the CEPA report lists numerous competing specifications of the DGM. CEPA state:

*"However, the DGM is sensitive to input assumptions which change based on prevailing forecasts, causing differing DGM results at different points of time."*⁸⁶

Financeability

- 6.191 As discussed at paragraphs 5.55-5.57, Ofgem's proposed 3-5% cost of equity is likely to create a financeability issue for companies in respect of debt issuance. Ofgem make three proposals for "resolving" these issues:

⁸⁶ CEPA, op. cit., p.112.

- Abolishing indexation of the RAV;
- Do nothing, and put the onus on the companies to inject equity;
- Introduce a revenue floor to ensure financeability of debt from a notionally geared company.

6.192 NERA have studied all three options and concluded that none are appropriate (see further Annex 2). We comment on each in turn in the following answers.

Q37. Do you consider there is merit in removing the indexation of the RAV and adopting a nominal return model in RIIO-2? What would be the benefits and drawbacks?

6.193 We see no reason to depart from indexation of the RAV. Real terms price regulation makes economic sense. If financeability is an issue, other means should be found of addressing the problem, without arbitrarily compromising economic principles.

6.194 As explained in the attached NERA report, whilst removing indexation from the RAV will help companies to finance at an artificially low cost of equity, it would depart from established regulatory practice, would lead to significant price increases, and would raise issues of inter-generational fairness with today's consumers subsidising future consumers.

Q38. Should the onus for ensuring financeability lie with the network operating companies in whole, or in part?

6.195 GEMA has a statutory duty to ensure financeability:

In performing their duties under subsections (1B) and (1C) The Secretary of State or the Authority shall have regard to

(a) ...

(b) the need to secure that licence holders are able to finance the activities which are the subject of obligations imposed by or under this Part the Utilities Act 2000 or Part 2 or 3 of the Energy Act 2004, Part 2 or 5 of the Energy Act 2008 or Section 4, Part 2, Sections 26 to 29 of the Energy Act 2010 or Part 2 of the Energy Act 2013.⁸⁷

6.196 Whilst companies and their shareholders must take responsibility for any aggressive (leveraged) financing structures that depart materially from the notional regulatory assumptions, Ofgem has a clear duty to ensure that all

⁸⁷ Electricity Act 1989, Section 3A(2).

reasonably efficient companies are financeable at the notional regulatory gearing levels.

- 6.197 The attached NERA report explains that if Ofgem effectively ignored the issue and placed the onus on companies, the fundamental integrity of the RAV model would be breached. Ofgem's proposed cost of equity is simply inconsistent with credit ratings assumed in the cost of debt indexation. It would also be inconsistent with GEMA's statutory duty.

Q39. Do you consider the introduction of a revenue floor, to protect the ability of companies to service debt, to have merit?

- 6.198 No. As NERA shows, a revenue floor ignores or defers the fundamental problem that Ofgem's proposed RAV is inconsistent with financeability of debt at the proposed target credit rating assumed in the debt indexation calculation.

Conclusion

- 6.199 None of Ofgem's proposed solutions to the financeability are appropriate. NERA shows that if Ofgem wishes to retain the integrity of the price control, the only logical responses are:
- Adopt a higher cost of equity (which would be consistent with NERA's critique of the CEPA estimates); or
 - Adjust the debt indexation metric to be based on an index for lower credit rated companies (e.g. BBB). This would increase the cost of debt allowance but could potentially restore the integrity of the RAV model under an (erroneously) low cost of equity. We do not recommend this as it increases the risk of DNOs facing financial distress.

Corporation tax

Q40. Do you agree that Ofgem should review the causes of any variances between tax allowances and taxes actually paid to HMRC (including the treatment of group tax relief)?

- 6.200 Ofgem should understand differences between the regulatory tax allowance and taxes actually paid to HMRC. The current methodology provides a means for setting the allowance for the price review period thus allowing network companies to fix their tariffs. However, if Ofgem were to move towards aligning the tax allowance more closely to the tax paid by each network company over shorter time horizons, there would need to be a mechanism that monitors and trues up any differences between the two.
- 6.201 Any true up mechanism would involve reconciliation between the allowances and taxes paid/returns submitted. The main areas that would cause a difference between the tax allowance and tax liability would be changes in the level and nature of capital expenditure which would impact the amounts allocated to the tax pools, and the level of taxable profits.

Which of the options described in this consultation may be worth investigating further to address any material variances?

- 6.202 Ofgem should consider further both Options A (review current notional tax allowance) and Option B (actual payments made to HMRC).
- 6.203 Option C ("Double-lock" – lowest of Options A and B) is unacceptable since it imposes only downside risk on the company. Ofgem should decide whether Option A or Option B is most suitable, and consistently remain with this approach rather than jumping between approaches according to which gives the lowest allowance. Doing otherwise would undermine investor confidence in the settlement process.

Other finance issues

Q41. Do you agree that we should move away from RPI for RIIO-2 (including for the indexation of the RAV if retained as a feature)?

- 6.204 We understand Ofgem's reason for wanting to move away from RPI indexation. However, a phased transition is essential in order to allow companies to maintain the correct hedge with existing RPI linked debt (see further paragraphs 5.62-5.64).

If yes, which of the two potential indices – CPI or CPIH – might be most suitable?

- 6.205 We believe that CPIH would be the more appropriate index to use.
- 6.206 The CPIH index is similar to the CPI index except that it also includes a measure of owner occupiers' housing costs, i.e. the costs associated with owning, maintaining and living in one's own home. However, unlike RPI, CPIH uses a method called "rental equivalence" which uses the rent paid for an equivalent house in the private sector as a proxy for housing costs of an owner. The CPI and CPIH indices are strongly correlated with a coefficient of correlation of 0.98 (measured on the annual average index changes).
- 6.207 In November 2016, the National Statistician announced that the ONS will make CPIH as its preferred measure of inflation from March 2017.⁸⁸ In particular, the National Statistician and the ONS consider "*CPIH has a number of desirable properties, most notably the inclusion of an element of owner occupiers' housing costs. It also addresses several flaws and limitations present in alternative*

⁸⁸ Office for National Statistics (November 2016), 'Statement on the future of consumer price inflation statistics in the UK', link: <https://www.ons.gov.uk/news/statementsandletters/statementonfutureofconsumerpriceinflationstatisticsintheuk>

measures.” In July 2017, the CPIH was re-designated as a national statistic by the National Statistician.⁸⁹

- 6.208 Following this, in December 2017, Ofwat⁹⁰ concluded in its final methodology for PR19 that CPIH is the more legitimate index for customers, given its inclusion of housing costs, which Ofwat considers as a significant expense for most household customers.

Is a phased transition between RPI and the chosen successor index necessary or desirable?

- 6.209 As stated above, a phased transition is essential in order to allow companies to maintain the correct hedge with existing RPI linked debt (see paragraphs 5.62 to 5.64).

Q42. In the light of our proposal not to amend, at a price control framework level, our policies for depreciation and asset lives set in RIIO-1 do you have any views or suggestions that you wish to put forward?

- 6.210 We have no changes to propose, since this issue has been covered extensively in RIIO-1 and the subsequent CMA appeal.

Q43. We propose to review the fast/slow money split at the business plan submission stage, do you have views that you wish to put forward at this stage?

- 6.211 We have no proposals at this stage, other than agreeing that the implication of IFRS16, relating to the accounting for leases, needs to be considered.

Q44. Do you think existing mechanisms for providing allowed revenue to compensate for the raising of notional equity are appropriate in principle and in practice?

- 6.212 We have no comments at this stage in relation to the electricity distribution networks. Since the RIIO-ED2 price control will not come into effect until April 2023, it is too early to comment on precise notional gearing assumptions.

Ensuring fair returns

Q45. What are your views on each of the options to ensure fair returns we have described in this consultation?

- 6.213 Under the heading “Ensuring fair returns” Ofgem has proposed five mechanisms for constraining (or supporting) company returns in the event of sector wide

⁸⁹ John Pullinger, National Statistician to Ed Humpherson, Director General for Regulation, Office for National Statistics (31 July 2017), link <https://www.statisticsauthority.gov.uk/wp-content/uploads/2017/07/CPIH-letter-from-Ed-Humpherson-to-John-Pullinger-final.pdf>

⁹⁰ Ofwat (13 December 2017), Delivering Water 2020: Our methodology for the 2019 price review Appendix 12: Aligning risk and return, p.95-97. Link: <https://www.ofwat.gov.uk/wp-content/uploads/2017/12/Appendix-12-Risk-and-return-CLEAN-12.12.2017-002.pdf>

outperformance. We have already discussed our concerns with such schemes in Section 5 (paragraphs 5.49-5.52).

- 6.214 The fundamental problem with all these proposals is the muting of incentives, either for high performing firms in isolation, or for the sector as a whole where relative measures are used. Many of them also expose companies to the risk that Ofgem may have made forecasting errors in the settlements of other individual companies. In addition, there is a high risk of unintended consequences from companies delaying efficiency initiatives in periods where they have already reached a trigger point.

Q46. Is RoRE a suitable metric to base return adjustments on? Are there other metrics that we should consider, and if so why?

- 6.215 As can be seen from our answer to Q45, we disagree with return adjustments. We also highlight in chapter 3, that Ofgem's current definition of RoRE currently excludes actual debt recovery costs.

Conclusions

- 6.216 Ofgem must take a holistic view of returns that companies can expect to achieve, taking account of the symmetry (or asymmetry) of the expected returns under the regulatory system and factor in over/under recovery of debt when assessing equity returns.

Next Steps

Q47. Do you have any views on the interlinkages and interactions outlined in this consultation and those that we will need to consider as we develop our sector-specific proposals?

- 6.217 RIIO-ED2 must form a consistent part of the overall RIIO-2 package. Ensuring all parties have appropriate incentives to work together for the benefit of the whole system must be a priority objective in the development of the RIIO-2 framework.
- 6.218 Within a consistent framework, however, the different roles of the transmission and distribution sectors must be recognised, and this will inevitably lead to differences in their regulatory treatment. Imposing uniformity for its own sake will result in sub-optimal outcomes for consumers.

Q48. Do you have any views on the issues highlighted that we will consider as we develop our sector-specific proposals?

- 6.219 Although RIIO-2 will provide a consistent overall framework, sector specific treatment will be critical. For example:

- Fast-tracking, requiring the comparison of business plans, is viable and attractive in the distribution network sector, even if it may be less suitable in other sectors (as we have discussed in paragraph 6.149);
- Competition for the market has been shown to be possible in the transmission sector, but further extension is unlikely to yield material consumer benefits in electricity distribution given existing competition from IDNOs (as we have discussed in paragraph 5.26).

Q49. Are there any sector-specific issues or policy areas that we should ensure we review and consider as we develop our sector-specific proposals?

6.220 We have no comments at this stage in relation to the electricity distribution networks given that the RIIO-ED2 price control will not come into effect until April 2023.

Q50. Do you have any views on our high-level proposals for timing of RIIO-2 implementation, and on our proposals for engagement going forward?

6.221 We have no comment on the timetable.

7 Annex 1: NERA Report on the Cost of Equity

7.1 See separate Annex.

8 Annex 2: NERA Report on Financeability

8.1 See separate Annex.