

## **RIIO-ED2 Sector Methodology Decision: Annex 2 Keeping bills low for consumers**

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The next electricity distribution price control (RIIO-ED2) will start on 1 April 2023. This is our decision on the methodology we will use to set this price control.

This document sets out our methodology decisions in several areas of the price control that are essential to keeping consumer bills low. This includes our approach to managing uncertainty, increasing competition, and ensuring the submission of high-quality company Business Plans. It also provides an update on our approach to cost assessment.

This document is an Annex to the RIIO-ED2 Sector Methodology Decision Overview Document and should be read alongside it.

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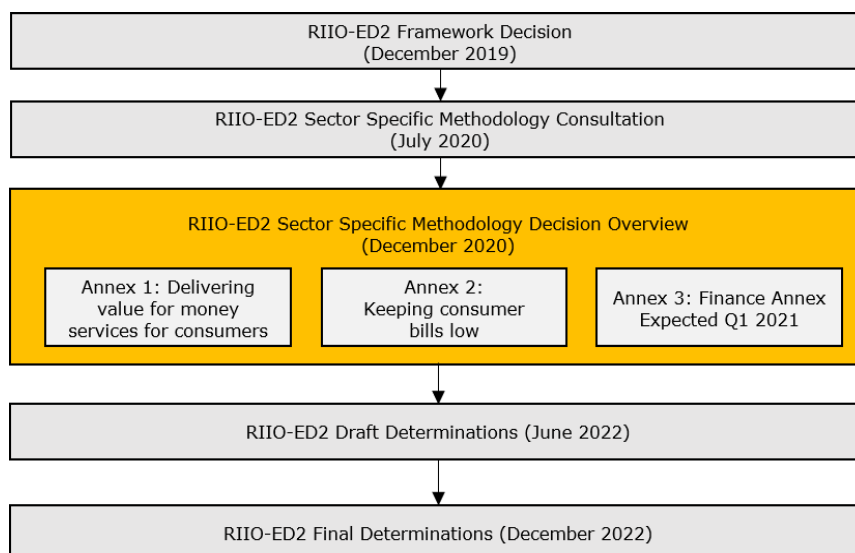
## 1. Introduction

### Chapter summary

This chapter provides a brief introduction to this annex and sets out the document structure.

- 1.1 In July 2020, we published our Sector Methodology Consultation which set out our proposed approach to the RIIO-ED2 price control. Annex 2 focused on the application of the RIIO-ED2 Framework Decision,<sup>1</sup> with a specific regard to how we will achieve the delivery of the required services and outputs while keeping bills low for consumers.
- 1.2 This document forms part of our decision on the sector methodology that we will apply to the RIIO-ED2 price control.
- 1.3 Figure 1 below sets out how this document fits in with the wider RIIO-ED2 Sector Methodology Decision.

**Figure 1: RIIO-ED2 Methodology Decision documents map**



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<sup>1</sup> <https://www.ofgem.gov.uk/publications-and-updates/riio-ed2-framework-decision>

## 2. Cost Assessment

### Chapter summary

In RIIO-ED2, a key objective is maintaining a high level of service quality for consumers whilst ensuring the costs of doing so are incurred efficiently. In our Consultation we set out proposals across a number of areas relating to our cost assessment process. In this chapter we summarise the responses received and our proposed approach. In most areas we are not making decisions at this stage and our cost assessment approach will continue to be developed through an ongoing programme of engagement ahead of the submission of the final DNO Business Plans in December 2021.

### Introduction

- 2.1 One of the core elements of RIIO-ED2 is to assess Distribution Network Operators' (DNOs') forecast total expenditure (totex) and develop our view of the efficient level of costs that will allow DNOs to carry out their activities and deliver an appropriate level of outputs for consumers.
- 2.2 For RIIO-ED2, we want the DNOs to be more efficient and we propose to set appropriate ongoing efficiency targets. We will challenge the DNOs to provide well-justified Business Plan submissions that represent value for money for consumers. This will ensure that they provide a secure and reliable supply of electricity at an efficient cost while making sure that any new assets they install meet customers' needs into the future, taking into account how those needs might change.
- 2.3 We have continued working with the cost assessment working group (CAWG), where DNOs and other stakeholders inform our cost assessment approach to RIIO-ED2. Our thinking on the approach to cost assessment set out in this document reflects developments in our own thinking, consideration of responses to our Consultation and views expressed by stakeholders through the CAWG. This programme of industry and stakeholder engagement will continue through 2021 to help inform any final decisions on our approach to cost assessment.
- 2.4 Full details of all RIIO-ED2 workings groups, including minutes and slide packs is available from our website.<sup>2</sup>

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<sup>2</sup> <https://www.ofgem.gov.uk/publications-and-updates/riio-ed2-working-groups>

2.5 The responses to our Consultation were predominately from the six DNO groups. The majority of other stakeholders opted to respond to the higher-level questions in the “RIIO-ED2 Sector Methodology Consultation – Overview” document.

## RIIO-ED2 approach to cost assessment

2.6 Cost assessment aims to develop our view of the efficient level of costs that will enable the DNOs to carry out their activities and deliver an appropriate level of outputs for consumers.

2.7 In our Consultation we proposed to build on the developments in RIIO-ED1 and continue to use a toolkit of methodologies and, where appropriate, incorporating the approaches taken to cost assessment across the RIIO-2 price controls for the transmission and gas distribution sectors.

2.8 In the Consultation we also set out our view on the key challenges for cost assessment in RIIO-ED2, including:

- **Importance of technology neutrality:** DNOs have an increasingly diverse set of tools at their disposal in terms of the solutions available to manage supply and demand on their local networks. Where flexibility and active network management offer genuine alternatives to traditional network reinforcement, it is increasingly important that our approach to cost assessment ensures technology neutrality.
- **Forecasting and scenario planning:** The uptake of electric vehicles and the installation of heat pumps, may vary significantly by region and by DNO. Is it important that our cost assessment approach can account and adjust for the different assumptions in forecasting and scenario planning.
- **Net Zero and the role of historical data:** The pace and scale of the energy system transition to support decarbonisation, the treatment of anticipatory investment, and the evolving role of the DNOs, challenge our ability to rely on historical costs for some strategic activities in our econometric analysis. These challenges will increase our reliance on data, and it is important that we are able to appropriately scrutinise and challenge forecast data.

2.9 In the following chapters we set out the range of methods that will shape our approach to assessing costs proposed by the DNOs for the RIIO-ED2 period, and the quality, robustness and objectivity of their associated justifications. We also

set out our intention to use a number of benchmarking approaches to inform our assessment of the efficiency of cost forecasts within the companies' business plans.

2.10 The RIIO-ED2 cost assessment toolkit will comprise:

- Econometric benchmarking
- Activity level analysis and modelling
- Individual project review
- Expert review
- Cost Benefit Analysis (CBA)
- Uncertainty Mechanisms

2.11 We intend to use totex benchmarking as well as more disaggregated benchmarking supported by technical/qualitative analysis as part of our toolkit for cost assessment.

2.12 We have not yet determined how we will combine the results of our benchmarking, or the weight we will assign to different elements of our analysis in our overall cost assessment. We will determine weights and the efficiency benchmark at a later stage, taking into consideration a range of factors, including data quality, the statistical properties of the models, and the extent to which the models capture additional information.

2.13 We intend to utilise the full suite of data available, including historical data from the DPCR5 (April 2010 to March 2015) and RIIO-ED1 price controls, as well as forecast data for RIIO-ED2, in our cost assessment. We recognise the importance of historical data in being able to challenge Business Plans in RIIO-ED2.

2.14 We will continue to develop elements of our toolkit ahead of the Business Plan submissions during 2021. We will endeavour to circulate our models ahead of submissions of the business plans, although we intend to undertake further analysis/development once the plans are submitted.



## Totex modelling

### Our updated thinking

2.15 Our latest thinking is to take a holistic approach to aggregated econometric analysis in RIIO-ED2, building on the approach in RIIO-ED1 that used both top-down and bottom-up regression models. We consider that using totex approaches side by side will provide useful validation for the results of each approach.

### Our Consultation position

2.16 For RIIO-ED2, we proposed that totex modelling would remain a key component of our toolbox approach to assessing comparative efficiency. We proposed to draw on learning from RIIO-ED1; developments from RIIO-T2 and GD2 and to consider responses to our Consultation in developing our specific totex modelling approach for RIIO-ED2.

2.17 We defined totex as the sum of opex and capex, where opex excluded the costs outside of the DNOs control (eg license fee) and capex was measured as capital expenditure as opposed to capital consumption (analogous to depreciation).

### Responses to Consultation

2.18 Respondents largely supported the use of totex benchmarking as part of our toolkit, although there were differences of opinion regarding the weight that should be placed on this relative to other models. One DNO did not believe that totex benchmarking should play an important part of the RIIO-ED2 toolkit.

2.19 Supporters of totex reiterated its advantages; in particular, that a totex approach would encourage DNOs to adopt the lowest cost interventions to deliver a set of outputs. It was noted that one of the key strengths of totex benchmarking is that it avoids the distortions of more granular modelling that can incentivise DNOs to favour a higher cost business model over another.

2.20 Limitations for the use of totex benchmarking were identified by respondents, with a particular focus on:

- cost drivers – some respondents felt that the totex model uses high level cost drivers without direct and clear relation to total costs

- lack of transparency – totex modelling is at an aggregated level and there is an inherent inability to determine a narrative as to why companies may be deemed by Ofgem as inefficient
- determination of efficient costs – it was argued that given the simplicity of the model, inefficiency could be due to un-modelled factors.

2.21 Respondents were generally not supportive of the level at which the efficiency benchmark was set in RIIO-GD2. There was clear support for using the upper quartile for totex benchmarking as in RIIO-ED1. Respondents noted that the efficiency benchmark used should be determined following completion of a benchmarking exercise and be informed by the robustness of the models developed, and that this should be decided by independent validation of the models Ofgem uses.

2.22 Respondents generally argued that both historical and forecast data should play a role in RIIO-ED2. One respondent noted that the relationship between drivers and costs is likely to change in the future, meaning that the use of forecast data in regression equations could reveal structural changes in the factors driving DNOs' expenditure requirements during the RIIO-ED2 period. If historical costs are unrepresentative of future drivers of cost and the drivers will not reflect the need for accelerated expenditure, this approach may not grant companies sufficient RIIO-ED2 allowances, unless Ofgem makes separate off-model adjustments

2.23 Some respondents were concerned that the wide range of normalisation adjustments applied to the data in the RIIO-ED1 totex model may distort the results of the model.

### **Reasons for our updated thinking**

2.24 We consider that totex benchmarking is an important tool for the assessment of relative efficiency. Totex benchmarking offers two main advantages over more disaggregated approaches; (i) it captures cross-activity trade-offs relatively well, and (ii) it is not affected by cost categorisation issues. It provides a good measure of the efficiency for the overall costs of a DNO, relative to a set of explanatory variables.

2.25 Our intention to use two totex benchmarking models, as in RIIO-ED1, to address concerns related to the use of high-level cost drivers and believe it is a more holistic approach. We consider that examining a totex model which relies

primarily on exogenous cost drivers, alongside a model that uses a composite scale variable composed of lower-level cost drivers, can provide a useful sensitivity check and add credibility to the models' outcome.

- 2.26 We will develop our thinking on the appropriate efficiency benchmark for RIIO-ED2 and expect to set out the criteria and target in our Draft Determinations.
- 2.27 Our intention is that we will make as few normalising adjustments as possible prior to benchmarking. However, our decision will ultimately be guided by the quality of the data submitted by the DNOs and we will carry out normalisation adjustments where necessary. Our approach to Regional and Company Specific Factors is detailed further in Chapter 3.
- 2.28 We are placing the onus firmly on the DNOs to justify, through robust and transparent evidence, that a regional or company specific adjustment is warranted. Further detail on our latest thinking on regional and company specific adjustments can be found in Chapter 3.

## **Middle-up modelling and other approaches to aggregating costs**

### **Our updated thinking**

- 2.29 We will continue to develop our thinking on the use of middle modelling and other approaches to aggregating costs, in the run up to Draft and Final Determinations for RIIO-ED2 in 2022. Specifically, we will consider the level of aggregation to utilise for a potential middle-up approach, and the identification of complementary costs and cost-drivers.

### **Our Consultation position**

- 2.30 We set out our view that middle models could help to overcome some of the disadvantages of either top-down totex modelling or bottom-up disaggregating modelling, and that they could provide a different perspective on cost analysis.
- 2.31 We proposed to utilise the criteria developed by CEPA<sup>3</sup> for RIIO-GD2, in considering suitable levels of aggregated costs, or cost pools:

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<sup>3</sup> <https://www.cepa.co.uk/news-insights/view/ofgem-consult-on-cost-assessment-tools-techniques>

- **complementarity:** Is there a strong technical/economic reason to believe that activities or groups of expenditure are complementary and should be benchmarked together and a consistent set of cost drivers can be identified?
- **cost trade-offs:** Can DNOs make trade-offs in expenditure between the different activities/areas included in the cost pool, and so benchmarking those activities/costs together will help avoid biased relative efficiency results or unintended managerial incentives for the DNOs?
- **cost boundary complexity:** How complex is the boundary of cost reporting data that needs to be defined to benchmark the identified cost pool/activity (eg how well defined is the group of costs within Ofgem's regulatory reporting templates)?
- **risk of inaccurate/biased models:** Is there too much 'noise' in the data to be confident that including certain types of expenditure within aggregated regressions could lead to inaccurate model results, or coefficient estimates that are difficult to interpret using engineering/economic logic?

2.32 In addition to the top-down and middle-up approaches discussed, we also highlighted the totex and opex plus approach that CEPA developed for RIIO-GD2. This option included totex modelling but with more disaggregated regression-based modelling undertaken for pooled opex and other costs, where clear complementarities and trade-offs for pooling exist.

### Responses to Consultation

2.33 Respondents supported the opportunity to further develop middle-up models, and largely agreed with the criteria developed by CEPA for developing cost pools. The majority of respondents agreed that development of middle models and cost pools, could help to resolve some of the limitations of totex modelling.

2.34 On the criteria for developing cost pools, one DNO agreed that complementary costs, and costs that can be traded off against one another, should be grouped in the same cost pool. They also argued that there should be an additional criterion to capture the effect on incentives towards efficiency.

2.35 Another DNO respondent recommended the inclusion of an additional criterion to ensure comprehensive coverage of costs at any one level of aggregation. This recommendation is based on observations of Ofwat's recent PR19 approach to

cost assessment and their development of 'cost pool' based models, and would ensure comprehensive capture of trade-offs and cost boundary complexities across activities and costs at any one level of aggregation. This DNO respondent added that while they agreed with the development of cost pools, that they be considered as part of a balanced examination of models at all levels of aggregation.

- 2.36 There was some support for the totex and opex plus approach from DNO respondents, so long as it met the criteria outlined and provided intuitive results that make economic sense, with strong explanatory reasoning. One DNO provided examples of opex activities where they thought that there were clear trade-offs: (i) the relationship between inspections and maintenance expenditure, and fault expenditure, (ii) the relationship between contractor expenditure and business support and capital costs, and (iii) the relationship between indirect and capital costs.
- 2.37 Several DNO respondents however were clearly not in support of the inclusion of a totex and opex plus approach in RIIO-ED2. One DNO argued that this approach amounted to a totex model with several exclusions, which would lead to cost boundaries and distortions.

### **Reasons for our updated thinking**

- 2.38 Our view, consistent with most respondents, is that there is potential value in developing middle models for use in RIIO-ED2, and that this could provide an important tool for the assessment of relative efficiency. As discussed, it is our view that middle models and the pooling of complementary costs, can help to overcome some of the disadvantages of either top-down totex modelling or bottom-up disaggregating modelling, and can provide a different perspective on cost analysis.

## **Disaggregated modelling**

### **Our updated thinking**

- 2.39 Our latest thinking is to use disaggregated modelling or bottom-up benchmarking as part of our toolkit for cost assessment in RIIO-ED2. We will develop the RIIO-ED1 approach through the CAWG, ahead of Draft Determinations, to address the

challenge of robustness and aggregation of the models taking forward the developments put forward in response to our Consultation.

- 2.40 Decisions and updated thinking associated with the specific elements of the RIIO-ED1 approach to disaggregated modelling is discussed in more detail in Chapter 5.

### **Our Consultation position**

- 2.41 We proposed in our Consultation that any disaggregated modelling approach considered for RIIO-ED2, would be based on the RIIO-ED1 approach. We intend to use disaggregated modelling or bottom-up benchmarking as part of our toolkit for cost assessment in RIIO-ED2.
- 2.42 We explained that in RIIO-ED1, it was our view that the bottom-up, activity-level analysis, allowed us to take into account a greater number of potential factors to explain costs.
- 2.43 We noted our intention to develop the RIIO-ED1 approach through the CAWG ahead of Draft Determinations. This was intended to address the challenge of robustness and aggregation of the models taking forward the developments put forward in response to this Consultation.

### **Responses to Consultation**

- 2.44 Respondents largely supported the use of disaggregated benchmarking as part of our toolkit but to varying levels as to how it should be used in setting allowances and to what weighting should be applied.
- 2.45 One DNO respondent argued that bottom-up, activity-level, disaggregated modelling was essential, and provided the most reliable and robust results out of all the cost assessment approaches considered in the toolkit, and as such, should be given the largest weighting in our analysis. While another DNO respondent argued that the use of disaggregated modelling should be limited to providing a cross check to aggregated approaches to benchmarking in RIIO-ED2.
- 2.46 One DNO respondent supported the use of bottom-up modelling alongside totex approaches, specifically in areas where a separate output was applied (eg NARM), or where the DNOs proposed novel, stakeholder-supported investment.

- 2.47 One DNO respondent, while recognising the benefits of using disaggregated, granular data to encourage cost reductions and aid transparency, believed there were significant risks in using disaggregated modelling. Specifically, the micro-management of specific activities at the expense of others, setting an unachievable 'package' of cost allowances that cannot accommodate trade-offs, and complex modelling that cannot react to late adjustments in the setting of the price control.
- 2.48 Several DNO respondents noted concern over the robustness of some of the disaggregated modelling for some cost categories, highlighting the need for further development for RIIO-ED2. One DNO commented on limitations of the RIIO-ED1 models, which included the use of too many complex models, often applied to very small costs pots and the proportion of models that involved little or no scrutiny on volumes. They also argued that the complex suits of models were difficult to run, or to scrutinise for errors.
- 2.49 On robustness, another DNO respondent detailed their concerns on the RIIO-ED1 disaggregated modelling for some cost categories, including tree cutting, faults, inspection and maintenance, business support costs, and Closely Associated Indirects (CAI). They discussed in detail the statistical issues associated with these disaggregated cost categories, such as poor model fit, and failure of important diagnostic tests.
- 2.50 One DNO respondent argued of the importance of disaggregated modelling in relation to the assessment of the Business Plan Incentive (BPI) and the Totex Incentive Mechanism (TIM). Adding that assessment of inefficient disaggregated costs is required in the categorisation of High and Lower-Confidence costs, critical for the calculation of the BPI and TIM. One respondent argued that the use of disaggregated benchmarking should be limited to providing a cross check to aggregated approaches to benchmarking in RIIO-ED2.

### **Reasons for our updated thinking**

- 2.51 It is our view that disaggregated modelling provides a useful tool for benchmarking DNOs. Consistent with the majority of respondents, we recognise that disaggregated modelling allows a less constrained specification of the relationship between cost and cost drivers and can be useful for cost areas with specific outputs associated with them.

## Combining the result of our econometric analysis

### Our updated thinking

2.52 We have not yet determined how we will combine the results of our econometric analysis, whether we will assign weights to different elements of our analysis in our overall cost assessment, or at what level we will set the efficiency benchmark. We will determine our approach for combining our analysis, the possible weights and the efficiency benchmark at a later stage, taking into consideration a range of factors, including data quality, the statistical properties of the models, and the extent to which the models capture additional information.

### Our Consultation position

2.53 We set out the RIIO-ED1 approaches at both fast-track and slow-track for combining our top-down and middle-up modelling with our more disaggregated analysis, to inform our views on DNOs' Business Plans and to set final totex allowances.

2.54 At fast-track the analysis was weighted at 12.5% for the top-down and middle-up modelling, and 75% for our disaggregated analysis. At slow-track, we had greater confidence in the totex models and gave them greater weight, applying a 25% weighting to each and a 50% weighting to our disaggregated modelling. In RIIO-ED1, at slow-track, it was our view that these approaches deserved equal weighting in our cost assessment.

2.55 We also discussed the setting of the efficiency challenge at RIIO-ED1, and the RIIO-GD2 approach at Draft Determinations. In RIIO-ED1, we benchmarked the efficient level of totex for each DNO using the upper quartile (UQ) of the combined outputs from the three models. In RIIO-GD2 Draft Determinations, the efficiency challenge was set at the 85<sup>th</sup> percentile. In RIIO-GD2, Final Determinations, the efficiency challenge was set at the 75<sup>th</sup> percentile in the first year of RIIO-GD2, followed by a glide path to the 85<sup>th</sup> percentile, which will be the benchmark in the last two years of RIIO-GD2.

### Responses to our Consultation

2.56 Several respondents commented that in combining the results of different models, the relative proportions of the weightings applied should appropriately



reflect the degree of confidence that can be given to the results produced by each approach. One DNO respondent noted that the aggregated models (ie top-down and middle model) that will be used in RIIO-ED2 are not sufficiently developed to a point that the degree of confidence in the results that these approaches produce can be established at present.

- 2.57 Two DNO respondents argued that a high weight should be placed on totex modelling approach, equal to or higher than the 50% weight placed on totex models at RIIO-ED1, with one of the DNO respondent recognising that the RIIO-GD2 Draft Determinations showed that a 100% weight is possible.
- 2.58 In opposition to this viewpoint, one DNO respondent argued that there are several significant advantages with the bottom-up, activity-level, disaggregated approach that mean that it produces significantly more reliable and robust results than the aggregated modelling approaches. In recognition of this, they believed disaggregated modelling should be assigned a weighting that is greater than the combined weighting applied to the aggregated models (ie top-down and middle model).
- 2.59 Another DNO respondent noted their preference for Ofgem not to rely on a single cost model for any item, recognising that aggregation of multiple models within cost pools will be required. The DNO respondent again noted preference that this combination is done on a straight average weighting depending on the number of models included (ie three models would each be given equal weighting of ~33%). Any deviation away from equal weighting by Ofgem should be clearly signposted, justified and evidenced as to why this decision has been taken.
- 2.60 One DNO respondent argued that rather than simply weighting together alternative methods, Ofgem could use top-down regression modelling to define allowances for most expenditure categories and use disaggregated modelling in targeted areas. For instance, while totex modelling can be useful for identifying levels of efficient costs for DNOs' business as usual activities, they will not capture the acceleration of expenditures required to achieve Net Zero.
- 2.61 Another DNO argued that it was possible to have a distinction between costs and the methods of how they are assessed (ie the use of cost pools). In this situation there would be no need to consider the method of aggregation between cost items or pools as it would be simply an addition. They noted that this approach can be observed in PR19 where base costs and enhancement costs were

- assessed, broadly speaking, on a totex basis and a disaggregated basis respectively and then combined to give a totex allowance for the period.
- 2.62 Several DNO respondents argued that to the extent Ofgem wants comfort that the proposed allowances are achievable by the companies in question, it can always maintain some form of disaggregated analysis, limiting its role to that of a cross check.
- 2.63 One DNO discussed the increased weighting that was applied to the aggregated models in the RIIO-ED1 slow-track cost assessment, compared to fast-track. They argued that consideration needs to be given to the fact that, for slow-track, companies resubmitted their RIIO-ED1 Business Plans with the benefit of the insights into relative efficiency provided by the disaggregated modelling used in the fast-track cost assessment. For RIIO-ED2, there is no opportunity for companies to revise their submissions based upon revealed efficiencies and therefore confidence levels in the results from the regressions in aggregated models would be expected to be lower than at RIIO-ED1 slow-track.
- 2.64 Several DNOs presented an alternative approach to weighting factors, where the totex allowances for each company would be defined as the maximum of the modelled costs, with an upper quartile adjustment applied to the modelled costs. They argued that this approach would prevent errors in one model that understate efficient costs for a company, affecting its allowances, while protecting customers from exaggerated costs through the upper quartile adjustment. One DNO noted that this approach was used in Germany and that there may be merit in exploring the concept further.
- 2.65 As previously highlighted, the majority of DNO respondents were critical of the approach taken in RIIO-GD2, at Draft Determinations, in setting the efficiency benchmark at the 85<sup>th</sup> percentile. Respondents argued that the move to an 85<sup>th</sup> percentile suggests a level of modelling accuracy that is unlikely to be supported by the statistical robustness of Ofgem's econometric modelling. All DNO respondents supported the benchmark for RIIO-ED2 being set at the Upper Quartile (UQ), arguing that this approach is in line with previous practice and supported by extensive regulatory precedent. Several respondents commented on historic levels of outperformance and supported the use of an 85<sup>th</sup> percentile for the efficiency benchmark in RIIO-ED2.

## Reasons for our updated thinking

- 2.66 As discussed in the previous sections, is it our intention to take a holistic approach to aggregated econometric analysis in RIIO-ED2, building on the approach in RIIO-ED1 that used both top-down and bottom-up regression models. We do not think that it is appropriate to determine the efficiency benchmark, weightings, or the methodology for combining results of our models, until our suite of models are sufficiently developed.
- 2.67 We will continue to develop our approach in the run up to Draft Determinations, informed by appropriate consideration of stakeholder feedback.

## Model specification

### Estimation techniques

#### Our updated thinking

- 2.68 Throughout our cost assessment process, we will analyse and assess the relative merits of different estimation techniques. This will include the Ordinary Least Squares (OLS) approach, that was used in RIIO-ED1 and RIIO-GD2 price controls.

#### Our Consultation position

- 2.69 There is a wide variety of models that we could use in our regression analysis. In line with our approach in RIIO-ED1 and RIIO-GD2, we proposed to use Ordinary Least Squares (OLS) models for our RIIO-ED2 cost assessment

#### Responses to our Consultation

- 2.70 The majority of DNO respondents supported exploration of more sophisticated model estimations options, where the data available supports it, and it has discernible benefit to the assessment process. One DNO added that while the choice between these alternatives may not be clear-cut in small samples, standard statistical tests should be performed to indicate whether alternative approaches may be more robust than OLS.
- 2.71 Several DNO respondents added that whichever approach Ofgem uses, it is important to ensure there is a process in place for demonstrating the statistical

validity of the models, and ensuring that modelled costs and efficiency gaps are not unduly influenced by the choice of estimation technique.

- 2.72 Several DNO respondents noted the key disadvantage of the Ordinary Least Square (OLS) approaches is the inability to distinguish between inefficiency and noise.
- 2.73 One DNO respondent noted Ofgem's decision not to utilise Stochastic Frontier Analysis (SFA) in previous price controls. The DNO added that a major downside of SFA is the subjective judgment required is arguably greater than Ordinary Least Squares (OLS) methods, as it requires assumptions on the statistical distribution and form of the inefficiency, data error and omitted factors. Adding that with the small cross-sectional samples (14 DNOs), the results could be unstable and sensitive to methodological choices, meaning this approach would not be appropriate for RIIO-ED2.

#### Reasons for our updated thinking

- 2.74 We recognise that there are advantages and disadvantages to the different available estimation techniques. While we think there are key benefits to the OLS approach, we also understand the potential drawbacks. We also recognise the additional data available for RIIO-ED2 cost assessment may support use of alternative estimation techniques to previous price controls.

### **Functional Form**

#### Our updated thinking

- 2.75 Throughout our cost assessment process, we will analyse and assess the relative merits of different functional forms. This will include the Cobb-Douglas functional form, that was used in RIIO-ED1 and RIIO-GD2 price controls.

#### Our Consultation position

- 2.76 Our Consultation position was to continue to use the Cobb-Douglas functional form based on its simple and attractive mathematical properties.

### Responses to our Consultation

- 2.77 The majority of DNO respondents, while supporting use of Cobb-Douglas functional form, did not think that Ofgem should preclude any other functional forms at this stage. Instead, Ofgem should assess the validity of the models, as part of their analysis, and where appropriate consider alternative functional forms.
- 2.78 One DNO respondent thought that it was reasonable to use the relatively simple Cobb-Douglas functional form as the main basis for Ofgem's analysis, and not, for instance, use the more complex translog model specification used by Ofwat at PR14. They added that the Cobb-Douglas functional form works well with small sample sizes and, unlike the translog model, allows for the inclusion of more independent cost drivers.
- 2.79 The same DNO respondent commented that Ofgem could also consider applying statistical tests to help it choose between linear and logarithmic models, ie the Box-Cox test.
- 2.80 One DNO argued that the Cobb-Douglas functional form was not suitable for cost areas such as Indirects. They added that a more reliable approach to setting allowances in this area would be to base them on current levels of expenditure, with adjustments for appropriate changes in capex due to changing workload requirements.

### Reasons for our updated thinking

- 2.81 While we have not seen any evidence to suggest that the Cobb-Douglas function form is not fit-for-purpose, we recognise that we should not preclude alternatives at this stage. Through the testing and analysis of our models, we may find that the Cobb-Douglas function does not hold, resulting in the need to consider an alternative functional form.

### **Criteria for selecting regression models**

#### Our updated thinking

- 2.82 We think that the selection criteria consulted on represents a sensible and robust approach to testing the suitability of regressions models. We will continue to develop our model selection criteria considering the inclusion of additional

criteria, and quantifying measurable tests or thresholds that, where appropriate, can be applied to our criteria.

#### Our Consultation position

2.83 We proposed the following three main criteria in selecting suitable regression models:

- **economic/technical rationale** – Do the model specifications and results have a clear economic/technical rationale?
- **transparency** – Including the data used, the results and ease of interpretation for stakeholders
- **robustness** – Does the model pass statistical tests? Is the model sensitive to the underlying assumptions?

#### Responses to our Consultation

2.84 The majority of DNO respondents were in support of our proposed criteria for selecting regressions models and the order in which the selection criteria was set.

2.85 On the economic/technical rationale criteria, several DNO respondents commented that they agreed that the model specifications and results should have a clear economic/technical rationale, be intuitive, and make engineering sense.

2.86 On transparency, several DNO respondents noted that transparency in data used, results, and ease of interpretation was key in generating understanding amongst stakeholders. One DNO added that transparency should not preclude complexity, in that models can be transparent and complex at the same time. In the interests of transparency all models should be published early in the process, along with all the information needed to fully understand, interpret, and recreate them.

2.87 On robustness, several DNO respondents agreed that this was key to understand sensitivities and that a regression model should be robust to statistical tests, changes in the sample and model specification, with the ability to explain existing costs and future forecasts. One DNO added that Ofgem should not be blinded by statistical testing, and that a varied cost assessment toolkit considering a variety of models, methods and techniques that make economic and engineering sense are more important than overfitting models to suffice statistical testing criteria.

- 2.88 One DNO respondent, in broad agreement with the model selection criteria proposed, believed that it was important to consider whether individual companies were outliers, and consider the stability of its modelled costs for individual companies to changes in model specification.
- 2.89 One DNO respondent believed that Ofgem should include "Promoting efficiency" and "Proportionate resource costs" to the model selection criteria. On promoting efficiency, they argued that it was important that the chosen econometric modelling promoted efficiency and created the right incentives. The DNO respondent also argued that it was important that the chosen modelling had proportionate resourcing cost.
- 2.90 One DNO suggested the tests for the robustness criteria could include  $R^2$  value greater than 80 per cent, and explanatory variables included in the regression model must have a statistically significant impact on costs at the 5 per cent level. The DNO added that failure of a candidate model to fulfil the criteria should lead to the dismissal / re-specification of the model, with the selection criteria then reapplied in an iterative fashion until all criteria are fulfilled. Another DNO respondent suggested that justification criteria might include a  $R^2$  value greater than 75 per cent.

#### Reasons for our updated thinking

- 2.91 We recognise comments from respondents on our model selection criteria, specifically the importance of ordering the criteria in terms of priority, the value in considering what incentives are created from our chosen econometric models, the resource costs, and the added transparency in quantifying values or materiality thresholds.

### 3. Regional and Company Specific Factors

#### Chapter summary

This chapter sets out our updated thinking for the treatment of Regional and Company Specific factors as part of our RIIO-ED2 Cost Assessment methodology.

#### Our updated thinking

**Table 1: Regional and Company Specific Factors**

Regional and Company Specific Factors	
Purpose	Regional and Company Specific Factors are adjustments made to a DNO's cost allowances to reflect specific factors that might mean that the efficient level of costs is higher in some regions or companies than in others.
Updated thinking	<p>We intend to set a high evidential bar for the acceptance of Regional and Company Specific Factor submissions.</p> <p>We have updated our criteria for Regional and Company Specific Factor adjustments:</p> <ul style="list-style-type: none"> <li>• The Regional or Company Specific Factor in question is clearly defined.</li> <li>• This factor, and the subsequent costs it drives, are beyond the control of an efficient company (having taken all the feasible measures to mitigate the costs).</li> </ul> <p>We still consider that the onus is on DNOs to justify their case for any proposed adjustments. We do not intend to subject Regional Factor submissions to the Business Plan Incentive.</p> <p>We intend to adopt the following criteria for our assessment of Company Specific Factors:</p> <ul style="list-style-type: none"> <li>• Is the cost impact of the Company Specific Factor material in nature? <ul style="list-style-type: none"> <li>○ We consider that a material cost impact will be more than 0.5% of a DNO's gross unnormalised total expenditure. DNOs should use this 'soft' materiality threshold as a guide when submitting a Company Specific Factor.</li> <li>○ DNOs should clearly explain the rationale for how they have grouped costs together. Unrelated cost categories should not be grouped together simply to exceed the materiality threshold.</li> </ul> </li> <li>• Is the Company Specific Factor unique in nature? <ul style="list-style-type: none"> <li>○ The Company Specific Factor should be limited to a single DNO or a small number of DNOs. Only claims that reflect a material asymmetry between DNOs are justified.</li> </ul> </li> </ul>



<ul style="list-style-type: none"><li>• Is the Company Specific Factor outside the control of an efficient company?<ul style="list-style-type: none"><li>○ DNOs should demonstrate that, where possible, they have mitigated the additional costs associated with the Company Specific Factor.</li></ul></li><li>• Is the cost related to the Company Specific Factor excluded from our other adjustments, such as Regional Factors or as part of our approach to cost assessment?<ul style="list-style-type: none"><li>○ If the cost is accounted for by other adjustments, we will consider whether there is any remainder that is not, and whether the remainder passes our materiality test.</li></ul></li></ul> <p>We will continue to update our thinking on how we will apply any Regional and Company Specific Factor adjustments, as we develop our approach to cost assessment ahead of Draft Determinations.</p>
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## Our Consultation position

3.1 We proposed to adjust companies' cost data to ensure our comparison of DNOs is conducted on a like-for-like basis.

3.2 In RIIO-ED1, Regional and Company Specific Factors comprised of regional labour costs, sparsity, and urbanity. We outlined our proposal for a high evidential bar for accepting any regional and company specific factor claims. We also outlined that we will not expect to consider claims that are not sufficiently material to warrant an adjustment.

3.3 We also proposed the following criteria to determine what costs should be appropriately adjusted:

- the Regional or Company Specific factor in question is clearly defined;
- this factor, and the subsequent costs it drives, are beyond the control of an efficient company; and
- the company (or a small number of companies) are impacted by a significant amount, and in a materiality different way to others.

3.4 Furthermore, we outlined the following three approaches to take account of Regional and Company Specific Factors within the cost assessment framework:

- Pre-modelling adjustment: the data is adjusted ahead of our modelling, as we have done previously in RIIO.

- Within-modelling adjustment: the Regional Factor is controlled for through the explanatory variables included in our models.
- Post-modelling adjustment: our models are based on unadjusted data; however special cost factor adjustments would be applied prior to us determining the expenditure allowance.

## Responses to Consultation

- 3.5 Those who responded to our proposed criteria for assessing Regional and Company Specific Factors generally agreed on the proposed criteria and one respondent suggested that Ofgem should consider whether factors are controlled for in econometric models. One respondent stated that the RIIO-ED1 requirements should still stand in RIIO-ED2. Two DNOs commented that they do not want a predetermined materiality value and this should be relative to the size of the company.
- 3.6 One DNO recommended that regional and company specific factor submissions should be subject to the Business Plan Incentive (BPI). The DNO further explained that if these submissions are deemed to be found as low confidence – there should be a disallowance penalty applied. One respondent agreed with a high bar but wanted further clarity within the Business Plan Guidance and another DNO further noted that this would avoid misalignment of expectations between Ofgem and DNOs.
- 3.7 One respondent disagreed with our position in the Consultation that this would affect a small number of companies and stated that there should be a clear distinction between regional and company specific factors.
- 3.8 Most stakeholders broadly agreed with the approaches outlined to account for regional and company specific cost factors. Several DNOs supported the use of pre-modelling adjustments to account for Regional Factors. One respondent supports the approaches used for RIIO-ED1 to control regional labour, density and sparsity and recommended Ofgem use a Gini Index to capture costs of running a dispersed network. One DNO recommended that Ofgem should not be making a regional adjustment where the data does not demonstrate an economic and statistical relationship.
- 3.9 There was a mix of responses for the use of within-modelling adjustments where one DNO said that this method of modelling is not necessarily the appropriate

method for applying company specific factors. Another respondent stated that the cost driver submitted is unlikely to offer significant explanatory power within statistical analysis.

- 3.10 Finally, there was a broad range of views on the applicability of post-modelling adjustments. One respondent stressed that post modelling adjustments should not be pursued by Ofgem as this may skew the coefficients. This is because the models will not be able to control the company specific factor prior to regression analysis. In contrast, one DNO suggested that post modelling adjustments would be a suitable approach to address costs that are not within efficiency controls.

## Reasons for our updated thinking

- 3.11 Our intention to set a high evidential bar for Regional and Company Specific Factor submissions is supported by regulatory precedents.<sup>4</sup> We also believe that this will focus efforts on high materiality issues and improve normalisations within the cost assessment process, ensuring comparability when adjusting historical and forecast data in benchmarking.
- 3.12 We will not dismiss the use of post-modelling adjustments at this stage. As commented on by respondents, a post-modelling approach may be the only feasible approach depending on the quality of data received. We also think that a post-modelling approach would increase transparency in terms of the size of the adjustment made within the associated model.
- 3.13 We recognise that Company Specific submissions are relative to each DNO and that a pre-determined value (ie "hard" materiality threshold) would not be appropriate. We intend to make a balanced assessment and consider smaller adjustments if warranted when other criteria are met.
- 3.14 We do not think that it would be appropriate to subject Regional Factor claims to the Business Plan Incentive, where these adjustments are already accounted for in our cost assessment, as this could risk double penalising DNOs. We will continue to develop our thinking as we develop our approach to cost assessment.

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<sup>4</sup> Ofgem RIIO-2 tools for cost assessment Consultation: Annex Tools for Cost Assessment – Annex 1 Available [here](#)  
Ofgem RIIO strategy decisions for the RIIO-ED1 electricity price control tools for cost assessment: Supplementary annex to RIIO-ED1 overview paper: Available [here](#)

## Next Steps

- 3.15 DNOs expressed views in applying symmetrical or asymmetrical approaches to Regional and Company Specific Factors (eg upward and downward adjustments fully offsetting each other in a symmetrical approach). We will continue to work with DNOs on these approaches and on the appropriate metrics that should be used to account for labour, density and sparsity adjustments. We intend to undertake further analysis and compare model performance in the lead up to Draft Determinations.

## 4. Real Price Effects and Ongoing Efficiency

### Chapter summary

This chapter outlines our approach to assessing both Real Price Effects (RPEs) and ongoing efficiency in RIIO-ED2.

## Real Price Effects

### Our decision

Table 2: Real Price Effects

Purpose	To account for the differences between our general inflation measure and certain input price indices that reflect the external pressure on companies' costs. We refer to these differences as Real Price Effects (RPEs).
Decision	<p>We have decided to index RPEs in RIIO-ED2, as opposed to setting an ex ante allowance.</p> <p>We will adopt our proposal to set a high materiality threshold and a high evidence bar for RPEs. For our materiality assessment, we will consider the size of the cost categories subject to input price variations and the impact of these variations on DNOs' total costs.</p> <p>We will compare a wide range of indices to ensure that we accurately measure DNOs' variation in input prices. Doing so, we will consider whether these indices are under DNOs' management control, and their interactions with other areas of the price control such as regional factors.</p> <p>We will further develop our proposal to use a notional cost structure and its appropriate cost input and expenditure categories through the Cost Assessment Working Group and set our decision for Consultation in our Draft Determination.</p>

### Our Consultation position

4.1 In RIIO-ED1, we set ex ante allowances for RPEs based on forecasts of input price variations. In our Consultation, we reiterated<sup>5</sup> our proposal to index DNOs' uncertain costs where possible. We set out our view that the indexation of cost allowances where feasible and appropriate would help us reduce the forecast risk associated with setting ex ante allowances.

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<sup>5</sup> Indexation was initially proposed in our August 2019 RIIO-ED2 Open letter. See: [https://www.ofgem.gov.uk/system/files/docs/2019/08/open\\_letter\\_consultation\\_on\\_the\\_riio-ed2\\_price\\_control.pdf](https://www.ofgem.gov.uk/system/files/docs/2019/08/open_letter_consultation_on_the_riio-ed2_price_control.pdf)

- 4.2 We also proposed to place strong emphasis on the materiality of RPE claims, and to impose a high evidential bar to ensure their appropriateness. We considered these principles are important, as they will challenge DNOs to focus on key risk areas, and to produce robust evidence of why general consumer price inflation is not an adequate proxy for specific input prices.
- 4.3 Similar to the approach taken for RIIO-ED1 and to what was subsequently decided in the RIIO-GD2 Final Determinations<sup>6</sup>, we proposed using a notional cost structure to set DNOs' RPE adjustment in RIIO-ED2. This would avoid using each DNO's actual cost structure, which might reward DNOs with potentially inefficient cost structures. Our proposal was to use the same input and expenditure categories used in RIIO-ED1.

### **Responses to our Consultation**

- 4.4 We received nine responses relating to RPEs, including six from DNOs.
- 4.5 We received mixed responses on our proposal to index RPEs instead of providing an ex ante allowance. Four DNOs were of the view that indexing RPEs would expose them to a greater risk. Unexpected fluctuations in revenues due to the volatility of RPE indices could result in greater costs by consumers. Some DNOs also argued that indexing RPEs yearly would not accurately reflect their actual input price variations, as their costs do not adjust to these variations in the short term. Another DNO pointed out that indexing revenues to indices based on the wider economy, exposes DNOs to additional risks, citing COVID-19's impact on labour costs.
- 4.6 Three stakeholders, including two DNOs, agreed with our proposal to index RPEs. One respondent pointed out the risk of forecasting RPEs inaccurately in setting ex ante allowances for RPEs, which is mitigated by RPE indexation. According to this respondent, lower RPE outturn values than originally forecasted led to £0.9bn profit in RIIO-1 for transmission and gas distribution network companies.
- 4.7 We received mixed responses on our proposal to set a high materiality threshold for RPEs. Some respondents agreed with our proposal to set a high materiality threshold. Others disagreed and argued that setting a high threshold would leave out smaller cost categories exposed to input price variations. One respondent

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<sup>6</sup> RIIO-2 Final Determinations – Core Document, page 67  
[https://www.ofgem.gov.uk/system/files/docs/2020/12/final\\_determinations\\_-\\_core\\_document.pdf](https://www.ofgem.gov.uk/system/files/docs/2020/12/final_determinations_-_core_document.pdf)

highlighted that to mitigate this issue, setting the appropriate disaggregation of cost categories would be necessary before setting a materiality threshold.

- 4.8 In response to our Consultation, two DNOs agreed with our proposal to use a notional cost structure for setting RPEs. Two DNOs were in favour of aligning expenditure categories with the cost areas in the Regulatory Reporting Pack (RRP). However, two other DNOs flagged that expenditure categories could be expanded, to include energy costs or costs associated with the Distribution System Operator (DSO) transition in RIIO-ED2, for instance.
- 4.9 One DNO suggested to use a single 'labour' input category instead of separating 'specialist' from 'generalist' labour, pointing out the lack of definition for 'specialist' and 'generalist' labour. Through bilateral engagement this DNO also pointed out that an additional '100% revenue pool' expenditure category might be necessary for wider alignment with the rest of the price control.
- 4.10 We also received feedback on the selection of RPE indices. One respondent highlighted the importance of selecting indices which fall outside of DNOs' management control. Another respondent advocated for Ofgem to compare a wide range of indices in the index selection process. It was also flagged that there could be interactions between RPE indices and regional factors, which should be considered to avoid distortions.

### **Reasons for our decision**

- 4.11 We have decided to index real price effects in RIIO-ED2. We believe it will better reflect actual costs faced by DNOs and protect consumers against the risk of inaccurate forecasting associated with setting an ex ante allowance for RPEs. This is because indexing RPEs reduces the potential for out-performance or under-performance of RPEs due to forecasting errors. Ex ante allowances for RPEs may also cause windfall gains or losses for DNOs due to factors outside of their control, for example due to the cost of labour or materials.
- 4.12 Indexing RPEs may induce unexpected fluctuations in DNOs' revenues when indexes are reflected into DNOs' allowances more regularly<sup>7</sup> than DNOs' actual

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<sup>7</sup> For example, with a yearly 'true-up' such as for GD2/T2. See RIIO-2 Final Determinations – Core Document, page 66-67: [https://www.ofgem.gov.uk/system/files/docs/2020/12/final\\_determinations\\_-\\_core\\_document.pdf](https://www.ofgem.gov.uk/system/files/docs/2020/12/final_determinations_-_core_document.pdf)

cost movements, as flagged in the Consultation responses. However, we think that DNOs could mitigate this issue with contracting practices.

- 4.13 We have decided to apply a high materiality threshold to RPEs. We recognise that there is a trade-off between mitigating the entirety of DNOs' input price variations and reducing the complexity of the price control as well as the resources needed to design and update the index mechanism. The latter is important to focus our RPE assessment on significant and robust claims for which meaningful indices are available.
- 4.14 While considering this trade-off, we will expect to index input prices which have a material effect on totex. This includes assessing whether the proposed cost categories to be indexed represent a high share of totex, and/or whether input price variations have a material impact on totex. In the case of costs which are below the set threshold, we think that the annual variations could be managed by the companies. To test the materiality, we will consider the appropriate aggregation of the cost categories.

## Ongoing Efficiency

### Our updated thinking

**Table 3: Ongoing Efficiency**

Purpose	To set the ongoing efficiency improvements that we would expect for a notional efficient DNO in RIIO-ED2.  We refer to ongoing efficiency (OE) assumptions as the reduction in the volume of inputs required to produce a given volume of output.
Updated thinking	As a starting point, we intend to use a wide range of evidence for setting our ongoing efficiency assumption in RIIO-ED2, including a growth accounting approach using the EU KLEMS8 database. We will also assess the suitability of other data sources to inform our analysis.  When setting our ongoing efficiency assumption, we will consider the feedback received on the key aspects of our ongoing efficiency methodology in response to our Consultation <sup>9</sup> , outlined in this section.  We expect DNOs to submit ambitious ongoing efficiency assumptions in their Business Plans, alongside thorough justification for their proposal. Ongoing efficiency assumptions should not be embedded in the costs

<sup>8</sup> See EU KLEMS growth and productivity data [here](#).

<sup>9</sup> RIIO-2 Sector Specific Methodology Consultation <https://www.ofgem.gov.uk/publications-and-updates/riio-ed2-sector-specific-methodology-Consultation>



	submitted in the Business Plan Data Templates but reported separately in the relevant table.
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### **Our Consultation position**

- 4.15 For RIIO-ED1, we accepted the ongoing efficiency assumption proposals submitted by DNOs in their Business Plans, as they were in line with our view of the savings an efficient company could make.
- 4.16 In the RIIO-ED2 Consultation, we set out our expectation for network companies to provide forecasts of their ongoing efficiency assumptions as part of their Business Plans, and to clearly demonstrate how these forecasts compare to what they have delivered previously.
- 4.17 To inform our RIIO-ED2 ongoing efficiency challenge, we outlined the key methodological considerations and the following sources of evidence:
- growth accounting analysis, including the use of the EU KLEMs database
  - historical performance of the DNOs, including the potential to make use of the companies' historical data
  - forward-looking productivity forecasts for the UK economy
  - wider evidence on the scope for productivity improvements, eg as a result of innovation funding received by the DNOs during RIIO-1.
- 4.18 We proposed to use the growth accounting approach as our primary source of evidence to inform our RIIO-ED2 ongoing efficiency assumption. It is a well-established methodology and would be consistent with the approach undertaken in gas distribution and transmission for RIIO-2.
- 4.19 We proposed the DNOs should report ongoing efficiency assumptions separately in the Business Plan Data Templates (BPDTs), as opposed to embedding these assumptions in submitted costs. This would increase transparency and improve our ability to assess DNOs' costs.

### **Responses to our Consultation**

- 4.20 We received nine responses relating to ongoing efficiency, including six from DNOs.

- 4.21 We received responses on the key methodological considerations for different sources of evidence outlined in the Consultation, to determine the RIIO-ED2 ongoing efficiency assumption.
- 4.22 The responses received were broadly supportive of our proposal to use a growth accounting approach as a key source of evidence. Stakeholders provided comments on a range of methodological aspects of this approach. These comments fall in three main areas: the data source and timeframe, the sectors we would use as comparator to electricity distribution and the metrics capturing productivity.
- 4.23 On data, some DNOs suggested to focus on recent productivity estimates. One of the reasons for that was that the 2008 financial crisis marked a structural break in productivity, and so data prior to this date would create an upward bias in our ongoing efficiency assumption. Another reason was that it would allow us to capture the effects of COVID-19 on productivity. Regarding our proposal to use the EU KLEMS datasets, one DNO agreed with our approach, but also advocated for a thorough assessment of the suitability of other datasets.
- 4.24 On comparator sectors, we received responses recommending the selection of a “narrow” set of sectors, focusing on those which are most similar to the electricity distribution industry. Some of the recommendations included putting more weight on the “electricity, gas, steam and air conditioning supply” sector of the EU KLEMS dataset, and on the construction sector. One stakeholder also suggested that the efficiency gains achieved in the competitive segments of the energy sector could inform Ofgem’s ongoing efficiency assumption.
- 4.25 We also received comments on the appropriate criteria for selecting comparator sectors. One DNO pointed out that different input mixes could result in similar outputs, and so it would not be appropriate to select comparator sectors for electricity distribution based on the similarity of input mixes. One DNO also highlighted that as RIIO seeks to mimic competitive settings, we could consider the extent of competition when selecting comparator sectors, to match the level of competition we would like to mimic in RIIO-ED2.
- 4.26 On productivity metrics, one DNO commented that using total factor productivity (TFP) metrics would mitigate any distortions linked to capital substitution effects. Another DNO said that, if used, labour productivity metrics should only apply to the relevant cost categories of DNO expenditure (ie labour costs), and not to total

- costs. It said this is to ensure that ongoing efficiency assumptions based on labour productivity are not applied to non-labour costs.
- 4.27 We received responses from three DNOs arguing that a greater weight should be given to the Gross Output (GO) measure compared to Value Added (VA). Additionally, one DNO advocated that a VA productivity metric should only be applied to the value-added portion of DNOs' expenditure. Inversely, they said that for internal consistency, an ongoing efficiency assumption applicable to the entire DNO cost base should be based on a GO value.
- 4.28 Beyond the growth accounting approach to setting an ongoing efficiency assumption, two DNOs supported that more weight should be placed on forward looking productivity forecasts, such as the ones provided by the Bank of England (BoE) or Office for Budget Responsibility (OBR). They argued that COVID-19 and Brexit will impact future productivity, which should be accounted for in our ongoing efficiency assumption.
- 4.29 Two DNOs argued that historical productivity of Electricity Distribution sector should not be used to inform the RIIO-ED2 ongoing efficiency assumption. Some of the responses stated that past performance improvements in the electricity sector are not accurate indicators of future improvements.
- 4.30 One DNO pointed out that the RIIO-ED1 framework had strong efficiency incentives, but that this would be reduced in the RIIO-ED2. Another DNO said that using historical performance data could create adverse incentives for network companies to not seek productivities savings greater than they have achieved historically, due to the potentially more stretching challenge in the future. In contrast, another stakeholder argued that our RIIO-ED2 ongoing efficiency assumption should reflect prior efficiency which has been evidenced with the underspend in RIIO-ED1.
- 4.31 We received responses from five DNOs arguing against the use of past innovation funding to inform the RIIO-ED2 ongoing efficiency challenge. DNOs said that previous innovation funding was not focused on efficiency gains, and so it would not translate into greater efficiency in RIIO-ED2. One respondent said that toughening the ongoing efficiency challenge based on past innovation would disincentivise future innovation, as it limits its potential rewards.

- 4.32 Two DNOs said that using a growth accounting approach with EU KLEMS data already included innovation efficiencies from competitive sectors. Additionally, they said that the cost assessment process would already account for efficiency improvements in technologies and processes incentivised by the price control in RIIO-ED1. These DNOs argued that, as a result, adding a further challenge for past innovation to the ongoing efficiency assumption would double count innovation. Lastly, some respondents thought there was no established quantitative relationship between innovation funding and productivity.
- 4.33 We also received a range of comments on other aspects of the ongoing efficiency challenge. One respondent suggested assessing the efficiency incentives driven by the RIIO-ED2 framework to inform our ongoing efficiency assumption. Another respondent recommended accounting for the efficiency gains from DNOs' transition to smarter systems, citing a list of smart system benefits identified by DNOs in RIIO-ED1.<sup>10</sup>
- 4.34 Lastly, one DNO argued that the move from RPI to CPIH general inflation measures in RIIO-ED2 would already imply a 1% ongoing efficiency challenge, as CPIH moves slower than RPI. As a result, the respondent recommended simplifying the price control by assuming that RPEs and ongoing efficiency net off and removing these elements in RIIO-ED2.

### **Reasons for our updated thinking**

- 4.35 We consider that a growth accounting approach to ongoing efficiency using the EU KLEMS database is a useful source of information on productivity trends in the UK. This approach is well-established and benefits from a strong regulatory precedent. We have reflected upon responses to our Consultation, and we will look at how we might continue to use the EU KLEMS dataset. This does not, however, preclude the analysis of other information in relation to productivity.
- 4.36 We will consider whether past innovation funding awarded in previous price controls could lead to further efficiencies beyond those in competitive sectors in RIIO-ED2 and investigate the appropriate methodology for capturing this effect quantitatively in our ongoing efficiency assumption.

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<sup>10</sup> RIIO-ED1 Draft Determinations Expenditure assessment, page 103  
[https://www.ofgem.gov.uk/sites/default/files/docs/2014/07/riio-ed1\\_draft\\_determination\\_expenditure\\_assessment.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2014/07/riio-ed1_draft_determination_expenditure_assessment.pdf)

- 4.37 We expect companies to include an assumption for ongoing efficiency within their Business Plans and to evidence how this assumption has been derived. Ongoing efficiency assumptions should not be embedded in Business Plan Data Templates costs but reported separately in the relevant table. This is to provide greater transparency on which costs ongoing efficiency assumptions are applied to. For the avoidance of doubt, catch-up efficiency should remain embedded in the costs in the Business Plan Data Templates.

## 5. Disaggregated Cost Assessment

### Chapter summary

This chapter details our latest thinking on our approach to assessing the disaggregated elements of the price control as identified in Chapter 2.

### Introduction

- 5.1 Network investment in the electricity distribution networks, as described in our Consultation, relates to the direct investments made to maintain or improve network reliability, in order to comply with the relevant legislation and industry standards and obligations. There are two key parts to this, load related expenditure (LRE), and non-load related expenditure (NLRE).
- 5.2 LRE relates to investments made in order to expand the current network capacity or to connect it with new generation or demand sources. While NLRE covers the majority of spend associated with asset management activities.
- 5.3 We also categorise costs into non-operational capex, which includes costs incurred from activities that are unrelated to core activities, network operating costs (NOCs), which cover the costs incurred in maintaining and operating the networks, and indirect operating costs which are split between two categories. Those costs that support the operational activities of the DNO (Closely Associated Indirect costs (CAIs)) and those costs which required to support the overall business (Business Support Costs (BSCs)).
- 5.4 As discussed in Chapter 2, we intend to use top-down, totex benchmarking as well as bottom-up, activity-level, disaggregated benchmarking supported by technical/qualitative analysis as part of our toolkit for cost assessment in RIIO-ED2.
- 5.5 We will continue our review of RIIO-ED1 disaggregated modelling approach as a starting point in developing our approach for RIIO-ED2, while taking into account any lessons learned and developments in our thinking.
- 5.6 In the following sections we provide our latest thinking, a summary of some of the key Consultation responses, and where appropriate, the next steps for the development of our approach to cost assessment in RIIO-ED2.

## Load related expenditure

### Overview

- 5.7 In RIIO-ED1, LRE accounted for £3,110m or 11% of total allowances. LRE refers to reinforcement expenditure, Transmission Connection Point (TCP) charges, connections and High Value Projects (HVPs).
- 5.8 In our Consultation we set out some of the key questions requiring consideration in the setting of LRE allowances in the context of the transition to Net Zero, specifically on the forecasting of future demand and the assessment of network impacts. Chapter 4 of the Overview document provides a summary of key responses in this area and sets out our updated approach to forecasting and strategic investment in Net Zero.
- 5.9 On flexibility, it was our view that this presented a significant opportunity to reduce network costs and lower bills for consumers and we noted and recognised that this should be reflected in the allowances that we set in RIIO-ED2. We also set out our requirements that DNOs transparently and robustly identify and assess options to resolve network needs, using competition where cost effective. We proposed the use of Engineering Justification Papers (EJPs) and CBAs, where appropriate, in providing the rationale and justification for why a solution, flexibility or network-based, was selected against alternative options. We provide our updated thinking and a summary of key responses in this area in the following sections.
- 5.10 On Load Indices (LIs), we outlined our ambitions to develop this area further to better enable the assessment of the risks that networks are likely to face in facilitating decarbonisation, and for use in setting robust network outputs. We provide our updated thinking and a summary of key responses in this area in the following sections.

### Our updated thinking

- 5.11 As discussed, our approach to LRE in RIIO-ED2 will be one of the key challenges of the price control. Underinvestment in networks now could put the Net Zero targets at risk, while not applying the necessary control measures could be costly for consumers, in terms of investment in assets that are either underutilised or not used at all. In Chapter 4 of the Overview Document, we have set outlined our

approach and methodology to ensure that sufficient investment is made in order to meet future demand and to protect consumers' interests.

- 5.12 It is also our view that there will be a requirement for some ex ante totex allowance for LRE. We will review and develop our RIIO-ED1 approach together with the CAWG, ahead of Draft Determinations, and in line with our decisions as set out in the Overview document, to address the challenges in assessing LRE and setting allowances.
- 5.13 On flexibility, we will continue to develop our approach to assessing costs of flexible and network-based solutions evenly for RIIO-ED2. Following this principle, we will ensure that the fixed costs of procuring flexibility are treated consistently with the fixed costs associated with network-based solutions.
- 5.14 On LIs, we will continue to develop our proposals in this area, aiming to enhance the reporting of network utilisation and risk metrics and for use in setting outputs. We will ensure development of this area is in alignment with our decisions detailed in Chapter 4 of the Overview Document.

### **Our Consultation position**

- 5.15 On flexibility, we proposed to compare the costs and benefits of traditional network-based solutions with those offered by flexible solutions on a like-for-like basis when assessing the DNOs' proposal. To do so, we suggested accounting for the option value of flexibility when deferring reinforcement decisions which face significant load-growth uncertainty.
- 5.16 We also proposed to require a strong justification for why a particular solution, flexibility or network-based, is submitted in the Business Plan and how this compares to alternatives. This included the rationale evidenced in the EJPs and CBAs, where appropriate, and stakeholder review through the CEGs.
- 5.17 On LIs, we identified areas which should be used as a basis for developing the methodology. This included a revision of current methodology, improving commonality of reporting, and expanding the methodology, where appropriate. We proposed to review the levels and width of the LI bandings as they are sensitive to small increases in demand and are set close to the capacity limits. We also proposed to continue developing our thinking on how network risk associated



with drivers other than demand were dealt with and incorporated within the LI methodology.

- 5.18 In line with our proposed approach to establishing the LRE requirements to meet forecast demand, we proposed to explore the options for extending the LI methodology to cover all voltage levels.

## Responses to Consultation

### Flexibility

- 5.19 All respondents agreed with our principle to compare flexibility solutions and network-based solutions on a like-for-like basis in our cost assessment. To do so, five respondents suggested different aspects for us to consider, including:
- option-value of reinforcement-deferral with flexibility
  - cost of carbon emissions
  - whole system impacts of each solution (eg on the transmission network)
  - flexibility market liquidity costs (eg the cost stimulating liquidity, or the additional cost of illiquid markets)
  - costs of operating flexibility markets and tendering for flexibility solutions
  - cost of over-procuring flexibility to mitigate risks of under-delivery
  - value of faster connections and faster roll-out of low carbon generation with flexibility
- 5.20 However, two respondents warned that the detailed analysis of each investment decision would be very resource intensive. Two DNOs highlighted the importance of setting the right incentives with our benchmarking approach as a result. One suggested using a totex benchmarking approach while the other advocated for a common unit cost approach when comparing flexible and network-based solutions.
- 5.21 Respondents were broadly supportive of treating the fixed costs of procuring flexibility equally to the fixed costs associated with network-based solutions, including other forms of procurement. Three DNOs suggested classifying these costs in the CAIs cost category, with one DNO also suggesting the BSCs and Non-Operational Capex categories, depending on the nature of the fixed costs.

### Load Indices

- 5.22 Most respondents were broadly supportive of the use of LIs as a measure DNOs' performance against the assumptions made in setting their allowances, and as a view of the utilisation and drivers for primary network reinforcement.
- 5.23 One DNO argued that the RIIO-ED1 rationale remained "that given the number of factors that contribute to level of network utilisation, setting outputs for LIs in RIIO-ED1 would not provide a robust way to measure DNOs performance over the price control". Meaning that it would not be appropriate to use LIs to set outputs in RIIO-ED2, and that much like they operate in RIIO-ED1, should be used to inform the efficiency of LRE.
- 5.24 The majority of respondents noted that while the proposals in this area were at an early stage, they would support the development of appropriate utilisation and risk metrics, through the Safety, Resilience and Reliability Working Group (SRRWG). Development of the metric should include a review of risk bandings and weightings, consistency of application, and expansion of the methodology, to enable producing more meaningful information on network utilisation.

### **Reasons for our updated thinking**

- 5.25 On flexibility, we recognise the role that this could play in driving down the cost of future network reinforcement. We think that it is important that, where flexibility is presented as an alternative to traditional network reinforcements, our cost assessment approach robustly and transparently identifies the solution that provides best value for consumers.
- 5.26 On LIs, we think that there is a scope to develop this metric ahead of RIIO-ED2 and we believe there is a merit in doing so. Enhanced information on network utilisation and the drivers of LRE will better enable assessment of efficiency of LRE undertaken in anticipation of future demand, specifically at lower voltages.
- 5.27 We recognise that timelines for the proposed developments of LIs require a careful consideration. We will continue to work with the DNOs, and other stakeholders, through the SRRWG.

## Non-load related expenditure

### Overview

5.28 In RIIO-ED1, NLRE accounted for £9,844m or 34% of total allowances. NLRE refers to all capital investment associated with maintaining the health of the existing asset base and rectifying the likelihood and consequences of asset failure. This includes:

- asset replacement
- refurbishment
- civil works
- diversions
- operational IT & telecoms
- legal & safety
- overhead line clearances
- NLRE other

5.29 In our Consultation we set out our view that, as a starting point, we would build on our RIIO-ED1 disaggregated modelling approach in developing our approach for RIIO-ED2. We also set out some key questions relating to Network Asset Risk Metric (NARM) reporting and the treatment of incremental costs.

5.30 In Chapter 8 of Annex 1, we set out in detail, our decisions on NARM in RIIO-ED2. In the sections below, we provide a summary of key responses on this area and set out our updated approach to NLRE.

### Our updated thinking

5.31 We will continue to review and develop our RIIO-ED1 approach together with the CAWG, ahead of Draft Determinations, to address the challenges in assessing NLRE and setting allowances.

5.32 We have worked with the DNOs and other stakeholders, through the SRRWG, to develop the NARM reporting requirements. Developments in this area are reflected in detail in our updated BPDT Guidance.

## **Our Consultation position**

- 5.33 On NARM, we were clear in our ambition to simplify the reporting requirements and workbook structure, incorporating all of the proposed developments to the NARM framework, as set out in Annex 1, and enhance the reporting to deliver additional insights and granularity of risk movements.
- 5.34 In our Consultation, we identified the following options for the reporting and treatment of incremental costs in RIIO-ED2:
- Option 1 – Report the core costs against the primary investment driver and report the additional incremental costs in a memo table or secondary table together with any benefit volumes as reportable
  - Option 2 – Report total costs against the primary investment driver, with a supporting memo table(s) setting out the incremental costs
  - Option 3 – Report total costs only, ignoring the requirements incremental cost reporting.

## **Responses to our Consultation**

### NLRE in general

- 5.35 We received mixed comments on the development of RIIO-ED1 approaches for the purposes of cost assessment and setting of allowances for NLRE in RIIO-ED2.
- 5.36 On the use of NARM in cost assessment, it was argued that developments in this area, as detailed in Annex 1, should enable greater use of this metric and provide cost-benefit justification for NARM related asset replacement and refurbishment activities. Some respondents supported the proposals to simplify the workbooks associated with NARM deliverables. It was suggested that some consideration should be given to the process by which any adjustments to future volumes arising from the application of the Asset Replacement modelling and/or scrutiny of CBAs/EJPs are reflected into the NARM targets. Otherwise there will be a mismatch between the risk targets and the volumes allowed to achieve them. A re-statement process would seem to be required to support this and aid transparency.
- 5.37 One respondent was critical of the RIIO-ED1 approach to assessing NLRE, arguing that it would not provide sufficient scrutiny of these costs. On our age-based replacement modelling, and use of NARM in cost assessment, it was argued that

the approach would give higher allowances to the DNOs with older asset bases, creating an incentive for short term deferrals from RIIO-ED1. On the other cost categories making up the rest of NLRE, it was noted that many of the costs received no volume scrutiny.

- 5.38 On refurbishment it was noted that there has already been significant developments on the RIIO-ED1 cost assessment approach, with new and/or redefined assets and activities within the scope of refurbishment and also the split of refurbishment costs and volumes to those that contribute to improvements in Health Index. In addition, the respondent expressed concerns over RIIO-ED1 unit cost assessment due to the lack of a consistent 'unit' across each category.
- 5.39 On diversions, one DNO's detailed analysis showed large variations in the unit costs reported by different companies. They argued that given the wide variance, as a remedy, Ofgem would either need to rely more heavily on totex modelling, or apply more technical and qualitative assessment of both unit costs and volumes to conduct a reasonable assessment of DNOs expenditure in this area. As activity levels are influenced by customers and external factors, one respondent argued that volumes should be accepted as submitted.
- 5.40 For Operational IT, it was noted that this area will be impacted by transition to DSO costs. Several respondents commented that costs in this area will differ significantly in timing and nature and will be unique to each DNO's digitalisation strategies. Consequently, it was proposed that the cost assessment in this area should be driven largely by qualitative assessment as opposed to quantitative assessment.
- 5.41 On Civil Works, several DNO commented on the need to review the RIIO-ED1 approach. It was argued that given the approach used a cost of work by substation site, it lacked a definable unit, which led to significant variances in costs between DNOs. One DNO proposed further disaggregation of this model to account for variation in scope of activity.

#### Treatment of incremental costs

- 5.42 While there was some recognition of the importance and benefit of clearer reporting of core and incremental costs, respondents were mixed in their views on how these costs should be treated, and on the options proposed in our Consultation.

- 5.43 One DNO, who did not support the proposals to measure or report incremental costs, supported Option 3, the reporting of total costs only. They added that reporting the “incremental” cost would depend on all DNOs adopting the same counterfactual for what they would have put in place, arguing that the lack of consistency in the data would render this exercise valueless.
- 5.44 One respondent said that none the options proposed were appropriate. They argued that any approach that does not retain the full cost of the activity undertaken within the reporting against the primary investment driver, leads to cost assessment based upon notional costs, which may be unrealistic and cannot be demonstrated as being reliable. They added that this had the potential to distort cost assessment outcomes.
- 5.45 Some respondents supported Option 1, where DNOs would report both incremental costs and benefits delivered for reasons unrelated to the investment driver. One DNO stressed the need to issue a careful guidance to DNOs on how such benefits should be calculated, and how DNOs should isolate which costs and benefits are incremental compared to the counterfactual where DNOs incur the minimum level of expenditure required to deliver against the primary investment driver.
- 5.46 Two DNO respondents supported Option 2, which includes the addition of a memo table to capture any incremental costs. It was argued that this approach was equivalent to the current treatment of losses expenditure within the RIIO-ED1 RIGs, where incremental costs are reported alongside the main cost driver and included in a memo table to give a consolidated view of total losses expenditure.
- 5.47 More generally, one respondent supported the need for a different perspective for RIIO-ED2, recognising that the oversizing of assets as regular asset replacement takes place should be an appropriate way of enabling strategic investments, and supporting the transition to Net Zero.

### **Reasons for our updating thinking**

- 5.48 As noted, it is our intention to continue to review and develop our RIIO-ED1 approach to cost assessment, through the CAWG, ahead of Draft Determinations. We recognise some of the concerns raised with respect to specific elements of our RIIO-ED1 approach to disaggregated modelling in assessing NLRE and setting efficient allowances.

- 5.49 As demonstrated through developments in the NARM reporting, detailed in our updated BPDT Guidance, we will take into account lessons learned and developments in our thinking to focus the development of specific elements of our suite of disaggregated models.

## **Non-operational capital expenditure**

### **Our updated thinking**

- 5.50 We will continue to review and develop our RIIO-ED1 approach, to address the challenges in assessing non-operational capital expenditure and setting allowances.
- 5.51 Throughout the cost assessment process, we will analyse and assess different approaches to assessing non-operational capex. We recognise that there are a variety of models and approaches that we could use and we will continue to engage with DNOs and stakeholders through the CAWG.

### **Our Consultation position**

- 5.52 In our Consultation, we did not propose any material developments to the cost reporting or assessment of this area in RIIO-ED2.

### **Responses to the Consultation**

- 5.53 All DNOs responded to this question, with two supportive of our approach. One DNO considered the RIIO-ED1 disaggregated models for non-operational capex simple, transparent and not overly distorting, and among the better models.
- 5.54 One DNO argued that the approach at RIIO-ED1 was too simplistic. It considered that these cost categories cannot be explained individually by MEAV, and that DNOs may make different cost allocation choices depending on the proportion of certain activities they choose to outsource.
- 5.55 DNOs provided a variety of comments on specific non-operational capex areas. One DNO suggested that non-operational IT & Telecoms should be assessed alongside operational IT & Telecoms at RIIO-ED2, as at RIIO-ED1, with a 75% weighting applied to qualitative assessment and 25% to quantitative assessment.

Another DNO disagreed, arguing that a 100% qualitative weighting should be applied, as in RIIO-T2.

- 5.56 On non-operational vehicles and transport, two DNOs agreed that these costs should continue to be assessed together with CAI Vehicles & Transport. Two DNOs considered that this area and that of non-operational capex property would benefit from more of a qualitative assessment and using EJPs, as per the RIIO-T2 approach. A number of DNOs highlighted that Ofgem will need to consider how to accommodate the impacts of the transition to low carbon on vehicles and transport, as well as on property. One DNO suggested that expenditure on business support property management should be assessed alongside property.
- 5.57 One DNO suggested reintroducing some form of quantitative assessment for Small Tools, Equipment, Plant and Machinery (STEPM). One DNO broadly agreed with maintaining the RIIO-ED1 approach but argued that MEAV is an over-simplistic method.

### **Reasons for our updated thinking**

- 5.58 We recognise some of the concerns raised on the cost drivers and ratio of qualitative to quantitative assessment employed in the RIIO-ED1 approach to disaggregated modelling on non-operational capital expenditure. As noted, it is our intention to continue to review and develop our RIIO-ED1 approach to cost assessment, together with the CAWG, ahead of Draft Determinations.

## **Network operating costs**

### **Our updated thinking**

- 5.59 Throughout the cost assessment process, we will review different approaches to assessing Network Operating Costs (NOCs). We recognise that there are a variety of models and approaches that we could use in assessing NOCs and we will continue to engage with DNOs and stakeholders on our approach through the CAWG.

### **Our Consultation position**

- 5.60 In our Consultation, we did not propose any material developments to the cost reporting or assessment of this area in RIIO-ED2.



## Responses to the Consultation

- 5.61 All DNOs responded on this area, with three broadly in agreement with our proposed approach. Of these, one DNO highlighted that NOCs costs were likely to grow with maintenance requirements for new smart devices and monitoring equipment. One DNO considered that we should review the approach to assessing regional or company specific factors and cost drivers in some NOCs areas to ensure they are still reflective of the current cost base.
- 5.62 Two DNOs did not support our approach. One DNO stated that several of the NOCs categories show wide variation in costs that it has not been able to explain through unit cost or econometric models. It suggested that totex modelling should be used to set allowances for BAU activities, while disaggregated modelling could be used to address the limitations of the high-level totex modelling, for instance to assess the costs of targeted programmes of work to expand the system to achieve Net Zero. One DNO considered that at RIIO-ED1 it had been very difficult to assess systematic patterns in the model results, as each model could comprise a high number of benchmarks.
- 5.63 DNOs provided a range of comments on individual models. On faults, one DNO considered that a more forward-looking view of expected volumes is required for RIIO-ED2, so that investment undertaken in RIIO-ED1 to reduce faults can be acknowledged in the assessment approach. It argued that Ofgem should consider cost assessment on a line-by-line basis as opposed to bundled, as was done in the assessment of LV and HV OHL faults. Another DNO said that the RIIO-ED1 fault model did not achieve good outcomes, in the way it applied regression analysis to some categories, unit cost and volume analysis to many others, and made extensive use of qualitative assessment.
- 5.64 One DNO considered that the use of a unit cost derived from a blend of median and DNO own value for Occurrences Not-Incentivised (ONIs) should be an approach considered for other cost assessment areas in RIIO-ED2.
- 5.65 One DNO suggested 1 in 20 severe weather events should be added as a pass-through cost if they occur, given the uncertainty and difficulty of using historical disaggregated data to predict future storm events.
- 5.66 One DNO asked for clarity on how we undertook the volume assessment based on MEAV in RIIO-ED1 for inspections and maintenance. It suggested that we

consider separate cost assessment for inspections and repair and maintenance activities. Another DNO echoed this view. It agreed with the approach taken in RIIO-ED1 for inspections and maintenance but considered MEAV as an oversimplistic method and suggested that alternatives should be looked at in the Cost Assessment Working Group. One DNO highlighted inspection and maintenance costs as often the most effective means of ensuring longevity of assets, setting out their concern if Ofgem's approach presumed a 'race to the bottom' as these cost categories often facilitate cost reductions in other parts of the cost base.

- 5.67 On tree cutting, One DNO considered that we should be mindful of the impact that the move to LiDAR technology might have on where and how DNOs report tree cutting activities and costs. This DNO highlighted a number of concerns with the RIIO-ED1 ENATs 43-8 regression model, including its view that bundling activities across voltage levels means all DNOs are likely to have received an allowance that does not reflect true efficient costs had a more disaggregate approach been taken, a point another DNO agreed with. One DNO considered that the use of spans cut as a workload driver undermines incentives towards cost minimisation, given that it is directly under company control.

### **Reasons for our updated thinking**

- 5.68 The majority of DNOs were in support of the use of the RIIO-ED1 suite of disaggregated models as a starting point for the development of our approach in assessing NOCs in RIIO-ED2. In their responses, DNOs suggested specific improvements that they thought should be made to individual models. We will consider all suggestions as we continue to review and develop our RIIO-ED1 approach to cost assessment, together with the CAWG, ahead of Draft Determinations.

## **Closely associated indirect costs (CAI)**

### **Our updated thinking**

- 5.69 Throughout the cost assessment process, we will analyse and assess different approaches to assessing Closely Associated Indirect Costs (CAIs). We recognise that there are a variety of models and approaches that we could use in assessing CAIs and we will continue to engage with DNOs and stakeholders on our approach through the CAWG.

## **Our Consultation position**

5.70 In the Consultation, we summarised the cost categories falling into CAIs in RIIO-ED1. We also outlined that to reflect DSO in the BPDTs, we would require changes to the CAIs and to develop the reporting of DSO related costs.

## **Responses to the Consultation**

5.71 Six DNOs and two stakeholders provided responses to the proposal to maintain the RIIO-ED1 approach for assessing CAIs in RIIO-ED2.

5.72 Respondents broadly agreed with maintaining the RIIO-ED1 approach for assessing CAI's in RIIO-ED2 but included a number of considerations for Ofgem.

5.73 Two DNOs noted the need to fully consider expected DSO costs in RIIO-ED2 and requested clarification to the assessment. Another DNO acknowledged the development of reporting DSO related costs but cautioned on the proposal to maintain RIIO-ED1 approaches, particularly around Core CAI costs. One respondent agreed with the proposal of separating DSO costs while another DNO suggested it will not be possible for Ofgem to observe historical relationships between DNOs CAIs due to DNOs taking on new responsibilities and not being aware of any cost drivers available to Ofgem that could capture these new requirements.

5.74 One DNO commented that they were broadly supportive of maintaining the RIIO-ED1 approach relating to Wayleaves and suggested that substation rents are reported and assessed separately in this area. Another respondent also supported Wayleaves remaining in the same cost category in RIIO-ED2 however they stated that changes are required to the way in which wayleave costs are assessed so that allowances reflect the real future cost to DNOs.

5.75 One DNO suggested that an additional Net Zero cost driver should be introduced for Vehicles and Transport as there will be an increase in costs due to the transition towards Net Zero vehicles. Another DNO suggested that the RIIO-ED1 approach of assessing CAI Vehicles and Transport costs alongside non-operational capex be retained.

5.76 On operational training including workforce renewal, one DNO recommended that the collection of data needs to be considered if the RIIO-ED1 approach is retained. The DNO further commented that a number of factors need to be

considered for streetworks, noting in particular that streetworks is not definitionally solely a CAI cost.

- 5.77 One DNO outlined their analysis to improve the RIIO-ED1 model and identified several cost drivers for CAI which controlled for sale, workload and environmental factors. The DNO concluded that it is not straightforward to identify a reasonable alternative and suggested that given the challenges of modelling CAI costs in isolation, it may be more appropriate to conduct benchmarking to assess the efficiency of DNO's expenditure at a totex level. One DNO noted that the RIIO-ED1 assessment of CAIs had advantages of simplicity and transparency using a top-down regression analysis approach but commented that they do not support the continued use of RIIO-ED1 disaggregated models.
- 5.78 A number of DNOs commented that CAIs needs further discussion and development in the CAWG to assess CAI expenditure in RIIO-ED2.

### **Reasons for our updated thinking**

- 5.79 We recognise some of the concerns on the RIIO-ED1 approach to CAI. As noted, it is our intention to continue to review and develop our RIIO-ED1 approach to cost assessment, together with the CAWG, ahead of Draft Determinations.
- 5.80 We have been working with the DNOs to develop commonality in the reporting of DSO costs and activities to align with historical and forecast reporting in the BPDTs.

## **Business support costs**

### **Our updated thinking**

- 5.81 Throughout the cost assessment process, we will analyse and assess different approaches to assessing Business Support Costs (BSCs). There are a variety of models and approaches that we could use in assessing BSCs outlined in our Consultation and we will continue to engage with DNOs and other stakeholders on our approach through the CAWG.

### **Our Consultation position**

- 5.82 In our Consultation, we outlined cost categories falling into BSCs and outlined RIIO-ED1 cost assessment method using MEAV as a cost driver.
- 5.83 We also outlined the different approaches taken in RIIO-GD2 and RIIO-T2 in assessing BSCs. BSCs were included in totex econometric model and MEAV as the cost driver in the RIIO-GD2 approach and a combination of both CSV and statistical adjustment approach was taken in RIIO-T2.

### **Responses to the Consultation**

- 5.84 Six DNOs and one stakeholder provided responses to the approaches presented for the treatment of BSCs in RIIO-ED2.
- 5.85 One DNO supported a consistent used in RIIO-ED1 in pooling of suitable BSC sub-categories. Another DNO suggested there are problems with the modelling approach of BSC in RIIO-ED1 which would make it inappropriate for use at RIIO-ED2.
- 5.86 One DNO favoured the totex Approach using MEAV as a cost driver with potential review of asset additions to reflect any increase of volumes as per Core CAI's. Another DNO supported the inclusion of MEAV as a cost driver within an econometric model.
- 5.87 One stakeholder commented they have no strong opinion on the alternative approaches but would wish to see ongoing efficiency improvements being incentivised. One DNO recommended that Ofgem should benchmark BSCs through regression analysis, using exogenous cost drivers that influence the scale of the business (eg customer numbers). Another DNO commented that they continued to support maintaining a group level of analysis for BSCs.
- 5.88 A number of DNOs questioned the appropriateness of discussing RIIO-GD2 BSCs in the RIIO-ED2 context. One DNO outlined that BSCs RIIO-GD2 Draft Determinations were included within the totex modelling approach and not considered at business support level and suggested that any pooling of costs for benchmarking purposes needs to be assessed on a like-for-like basis.
- 5.89 Another respondent acknowledged that there are some comparisons from other sectors did not believe that this would be sufficient to allow meaningful cost

assessment conclusions and noted that volume of companies available for benchmarking is significantly higher in RIIO-ED2 than in RIIO-T2. One DNO outlined their analysis to improve the RIIO-ED1 model and identified a number of possible cost drivers controlling for scale for RIIO-ED2. The DNO concluded that it is not straightforward to identify a better model and therefore more appropriate conduct benchmarking at a totex level with the exception for cost items which are not comparable across companies.

### **Reasons for our updated thinking**

5.90 Whilst we think there are benefits to pooling costs from other sectors, we recognise that the data and assessment needs to be comparable for benchmarking purposes. We will determine our approach taking a number of factors into consideration such as the comparability of data, appropriate cost drivers and statistical tests.

## 6. Cost Benefit Analysis and Engineering Justification Papers

### Chapter summary

In this chapter, we set out our updated thinking on the application of CBA in the appraisal of potential investment decisions. We also set out our approach to the preparation of EJPs within the DNO Business Plans. For both these areas further information on the approach will be set out in the updated business plan guidance to be published in January 2021.

## Cost Benefit Analysis

### Our updated thinking

6.1 CBA is an important decision support tool as part of the justification for investment needs in RIIO-ED2, enabling the DNOs to demonstrate the proposals included in their business plan provide the optimum solution which demonstrates best value for consumers. We will continue to work with the DNOs to develop and agree the scope for the application of CBA in RIIO-ED2, updating the business plan guidance and templates as required.

### Our Consultation position

6.2 In our Consultation, we outlined the role of CBA in demonstrating that due diligence has been followed in the appraisal of potential investment decisions and proposed using the approach taken for the setting of the RIIO-ED1 as a starting point for the development of the tool for RIIO-ED2. We set out the general principles and application of CBAs expected for RIIO-ED2 and invited views on our proposed approach.

### Responses to Consultation

- 6.3 Overall, respondents agreed with our proposed approach to CBA assessment. There were a number of areas suggested by respondents for further clarification and guidance.
- 6.4 One DNO noted that it was disappointed that we did not consult on expanding the representative basket of benefits, variation of fixed factors and use of

probabilistic assessment techniques. It identified that the expansion of benefits was important in order to demonstrate customer, stakeholder and wider community benefits effectively and transparently. Another DNO noted the ongoing development of societal benefits in the ED-2 CBA template should continue by looking at other parameters which are appropriate in the context of the electricity distribution sector.

- 6.5 One DNO noted that CBAs have a valid role as part of the cost assessment tool kit. However, if they offer a route out of other forms of cost assessment, this could “distort” the base costs which are used to set benchmarks, and would also provide an incentive for excessive provision of CBAs stressing that this would not be a good outcome.
- 6.6 Three DNOs expressed an interest to work with Ofgem to co-develop changes to the current CBA template to ensure that it is fit for purpose for RIIO-ED2.

### **Reasons for updated thinking**

- 6.7 In order for us to properly assess and compare the different business plans we require the DNOs to adopt a common CBA framework to facilitate cross-DNO comparisons of asset investment plans. We believe that enhancing the CBA approach for RIIO-ED2 will improve the quality of decisions made and therefore drive additional consumer benefits.

### **Next steps**

- 6.8 We will continue to work with DNOs, through the CAWG, to produce the updated template and guidance, this will include updated definitions, evidence and data requirements and the interaction with the other elements of the toolbox including NARM and EJPs for justifying investments.
- 6.9 Further detail on our requirements will be published in the updated Business Planning Guidance due to be published in early 2021.



## Engineering Justification Papers

### Our updated thinking

- 6.10 We will require DNOs to produce EJPs, as part of a wider toolkit, to justify investment decisions in their Business Plan submissions.
- 6.11 To minimise duplication of effort for the production of EJPs we intend to adopt the following core principles:
- EJPS will be part of the toolbox approach to justifying and assessing proposed investments and preferences for chosen strategies. This toolbox will also include econometric analysis, NARM and assessment of the narrative presented in the overall Business Plan
  - EJPs will be required for high materiality investment programs. They are required to allow scrutiny and challenge of Business Plan proposals. They are essential where investment proposals and volumes are significantly different from RIIO-ED1 EJPs. They should not duplicate existing information and can cover a portfolio of assets or CBAs
  - the submissions should be concise with EJPs providing additional information, to support the needs cases, costs & project timings where this may not be immediately apparent from consulting the Business Plan, Business Plan Data Tables, CBA or NARM documentation alone.
  - the submissions should provide clarity on the licensee's decision-making process. The EJPs should have a supporting narrative on data. This should detail what data is held, how it has been used and how the data and supporting analysis supports the investment decision.
- 6.12 In support of the production of EJPs we intend to adopt the following criteria to produce EJPs:
- **High Value Investments:** Where the investment proposal forecast cost exceeds a materiality threshold an EJP shall be required. This shall cover high value asset health investments, significant network capacity increase projects and aggregated programmes with common investment drivers such as LCT adoption.
  - **Significant Volume Change:** For asset categories where there is material change in proposed volumes when compared to previous price

control periods and the investment proposal forecast cost exceeds a de-minimis cost, an EJP shall be required.

- **Complexity:** Where there is a non-trivial needs case, a complex solution is proposed, or the proposed solutions costs and volumes are not suitable for econometric assessment. A DNO may choose to produce an EJP to enhance transparency and provide additional evidence.
- **Optionality:** Where a network operator proposal requires significant investment beyond the minimum do nothing/do minimum base case required to meet statutory requirements. A DNO may choose to produce an EJP to enhance transparency and provide additional evidence.
- **Novelty:** For new areas of investment or novel benchmarking of costs. A DNO may choose to produce an EJP to enhance transparency and provide additional evidence.

### **Our Consultation position**

6.13 We proposed to extend the engineering justification framework developed for the gas distribution and transmission RIIO-2 price controls to RIIO-ED2. This included the requirement for DNOs to produce EJPs which set out the need, options, scope, costs and benefits for major projects or aggregated investment programmes aimed at improving asset health of existing equipment or providing increased capacity on the network. We also proposed a series of principles to guide the production of EJPs to focus the submission on the most material areas and minimise duplication with other areas of the DNO business plans.

### **Responses to Consultation**

6.14 All six DNOs provided substantive responses to our Consultation, other respondents were supportive of our proposals but did not provide specific comments.

6.15 All DNOs considered that it was appropriate that the requirement for EJPs was retained to support RIIO-ED2 Business Plan submissions.

6.16 One DNO considered that for high value asset health, significant network capacity increase projects and aggregated programmes of work EJPs could provide a clear indication of the need case for and the full scope of the planned activities.

- 6.17 All DNOs raised concerns around the potential for duplication of material in other areas of the business plan stating that requirement for EJPs needs to be suitably focussed to ensure that EJPs are only produced where there is a material need for supporting evidence in addition to the information that will already be provided through Business Plan Data Tables, narrative etc.
- 6.18 Respondents stated that the criteria for when EJPs are required needs to be clear, to ensure DNOs provide the additional justification where Ofgem expects to receive it. This includes the provision of updated guidance and setting of materiality thresholds.

### **Reasons for updated thinking**

- 6.19 In line with our Consultation position, and supported by respondents, we have decided to include the use of EJPs alongside CBA as a key component of our toolbox approach for justifying investment needs in RIIO-ED2. We believe that EJPs provide the appropriate vehicle for transparent and robust justification and rationale behind specific investment decisions.
- 6.20 We also recognise concerns from respondents around the potential duplication of material and resulting resource burden. We think that the development of clear guidance on where EJPs are required to support investment justification will provide the required clarity and will help to focus justification efforts on the most significant and material elements of the price control.

### **Next steps**

- 6.21 We will continue to work with DNOs, through the CAWG and SRRWG, to produce updated guidance on the production of EJPs, this will include updated definitions, evidence and data requirements and the interaction with the other elements of the toolbox including NARM and CBAs for justifying investments.
- 6.22 Further detail on our requirements will be published in the updated Business Planning Guidance due to be published in early 2021.

## 7. Data Assurance and Compliance

### Chapter summary

In this chapter, we set out our methodology decisions on data assurance and compliance for RIIO-ED2.

### Our updated thinking

7.1 We intend to adopt our proposal in the RIIO-ED2 Consultation to require DNOs to have appropriate systems, processes, and procedures in place to meet Data Assurance and Compliance requirements for RIIO-ED2. We expect DNOs to use the current Data and Assurance Guidance for the RIIO-ED2 Business Plan submissions.

### Our Consultation summary

7.2 In our Consultation we proposed that each DNO would be required to have appropriate systems, processes, and procedures in place to meet Data Assurance and Compliance requirements for RIIO-ED2. We also outlined that it is upon DNOs to provide Ofgem with data that is complete, accurate and place the onus on Licensees to ensure the integrity of the Data submitted. We proposed to record for each submission if it was received on time and if it was complete and accurate and noted that this record will be used to take the appropriate action against poorly performing DNOs.

7.3 The Consultation also outlined our intention to bring together all data assurance requirements under one licence condition to place greater focus on the importance of data assurance. Furthermore, we proposed to review the Data Assurance and Guidance (DAG) for RIIO-ED2 and for RIIO-2 in general.

7.4 In relation to modernising energy data, we noted that we will look at opportunities to modernise and improve the data processed and exchanged between Ofgem and DNOs. We highlighted the Regulatory Instructions and Guidance (RIGs) as an example of a data use case to improve data processing exchanges.

## Responses to our Consultation

- 7.5 Respondents generally agreed that there should be a level of data assurance in relation to accurate, complete, and timely information. Additionally, one stakeholder welcomed that Ofgem will specify a minimum data assurance activity for particular submissions where required and another agreed that the level of data assurance activity should be proportionate to the type of submission. A couple of respondents agreed with the principle of placing greater focus and importance of data in RIIO-ED2 and the opportunity to discuss use of annual reports and value added to the annual iteration process.
- 7.6 One DNO highlighted that the RIIO-ED1 licence requirements are thorough and there could be a risk that RIIO-ED2 requirement activities and methods become too onerous.
- 7.7 Overall, stakeholders were broadly supportive of improving data exchanges and processes. One respondent recommended that Ofgem implements recommendations from the Energy Data Taskforce (EDTF) and that a similar agile assessment and feedback loop to that used in relation to the network companies publishing their Digitalisation Strategy and Action Plan will be key for RIIO-ED2.
- 7.8 Some respondents highlighted a number of areas to consider:
- A couple of DNOs stressed the importance of defining the proposed improvements for RIIO-ED2 as early as possible to facilitate consistency across network companies.
  - Lessons can be learnt when large changes are implemented at short notice creating issues for both the regulator and licensees.
  - When new activities are introduced, there is a risk this results in different interpretations being taken about requirements and needs and stressed the need to communicate about and improve these areas as a priority.
- 7.9 Some DNOs suggested that the focus should not be on data exchanges and new processes but rather non-technology principles such as improving data quality and consistency. One DNO further outlined that they do not want to rush to implement technology solutions without knowing how these processes could improve customer services and creation of metadata should be the key focus.

### **Reasons for our updated thinking**

- 7.10 As proposed in the Consultation, we will continue to work with DNOs on data processes and modernisation through bilateral engagements and working groups. We also recognise the need for Ofgem to respond to the Energy Data Task Force recommendations and to take advantage of digitalisation opportunities, including our approach to exchanging data with network companies and wider stakeholders.
- 7.11 We expect that, although the RIIO-1 licence requirements are thorough, wider improvements to best practice uses of data will mean that there will be ongoing opportunities to improve how Ofgem and network companies exchange data. As proposed in the Consultation, we intend to review the current DAG for RIIO-ED2 and for RIIO-2 in general, aligning to Data Best Practice as set out in the Modernising Energy Data Section (Chapter 5) of the Overview Document. We believe that improving data exchange and processes will reduce the burden and onerousness for Ofgem and DNOs.

## 8. Uncertainty Mechanisms

### Chapter summary

In this chapter, we confirm the specific uncertainty mechanisms we will include in RIIO-ED2 to ensure the price control can adapt to a range of different future scenarios. Additional uncertainty mechanisms can also be proposed by the DNOs as part of their Business Plans.

### Introduction

- 8.1 Forecasting costs and outputs with confidence for the duration of a price control is challenging. Uncertainty around the investment needed in the networks to facilitate net zero (or other decarbonisation) targets adds to this challenge, particularly for RIIO-ED2.
- 8.2 The suite of uncertainty mechanisms we will include for RIIO-ED2 cover several uncertain areas that we identified in our July Consultation:
- uncertainty mechanisms to support substantive changes in external policy
  - uncertainty mechanisms to align allowances with delivery
  - uncertainty mechanisms for risks outside of the DNOs' control.
- 8.3 Uncertainty mechanisms allow us to make adjustments to a network company's allowance in response to changing developments during the price control period. There are five main types of uncertainty mechanism that we are using for RIIO-ED2:
- **volume drivers** to adjust allowances in line with the actual volume of work delivered, where the volume of certain types of work that will be required over the price control is uncertain (but where the cost of each unit is stable)
  - **re-opener mechanisms** to decide, within a price control period, on additional allowances to deliver a project or activity once there is more certainty on the needs case, project scope or quantities, or cost
  - **pass-through mechanisms** to adjust allowances for costs incurred by the DNO over which they have limited control and that, in general, we consider the full cost of which should be recoverable (eg business rates)

- **indexation** to provide network companies and consumers some protection against the risk that outturn prices are different to those that were forecasted when setting the price control, eg general price inflation or cost pressures.
- **Use-it-or-lose-it allowance** to adjust allowances where the need for work has been identified, but the specific nature of work or costs are uncertain.

8.4 The use of uncertainty mechanisms is important to avoid damaging incentives on the DNOs to be efficient, unnecessarily exposing DNOs to risks outside of their control, or exposing consumers to material forecasting risks at price control review.

8.5 In this chapter, we outline the range of uncertainty mechanisms we expect to apply in RIIO-ED2. Further background detail on each of these mechanisms was outlined in our Consultation.

8.6 We will consult on further details of each mechanism, such as the relevant application windows and materiality thresholds, at Draft Determinations in 2022.

## Uncertainty mechanisms in RIIO-ED2

8.7 Table 4 sets out a summary of the uncertainty mechanisms that will be used in RIIO-ED2. Some of these are cross-sector in nature, applying to some or all of the other RIIO-2 price controls, while others are specific to RIIO-ED2.

8.8 At this stage we may not have identified every potential mechanism that might be in the interests of consumers for inclusion. For example, we will need to consider the need for any additional uncertainty mechanisms that may arise as a result of the Access Significant Code Review (Access SCR) or changes in data or digital requirements. Similarly, we will be exploring the tools we could use to change the price control to reflect outcomes of our work considering alternative DSO governance arrangements.

8.9 The DNOs may also suggest additional uncertainty mechanisms as part of their business plans. Any additional uncertainty mechanisms proposed by the DNOs in business plans must be clear on the mechanism being proposed, the area of uncertainty it is expected to address, and must be justified in terms of their ability to better manage risk and deliver benefits to consumers.



**Table 4: Summary of the uncertainty mechanisms for RIIO-ED2**

Name	Type of mechanism	Comparison to RIIO-1	Reference
<b>Cross-sector mechanisms</b>			
Ofgem licence fee	Pass-through	No change proposed	Chapter 8
Business rates	Pass-through	No change proposed	Chapter 8
Inflation indexation of RAV and allowed return	Indexation	Change proposed for RIIO-ED2	Further detail on RIIO-ED2 application will be set out in the 2021 Finance Annex
Cost of debt indexation	Indexation	Change proposed for RIIO-ED2	Further detail on RIIO-ED2 application will be set out in the 2021 Finance Annex
Cost of equity indexation	Indexation	New for RIIO-ED2	Further detail on RIIO-ED2 application will be set out in the 2021 Finance Annex
Real Price Effects	Indexation	Revised for RIIO-ED2	Chapter 4
Tax review	Re-opener	New for RIIO-ED2	Further detail on RIIO-ED2 application will be set out in the 2021 Finance Annex
Pensions adjustment	Pass-through	Revised for RIIO-ED2	Chapter 8
Enhanced Physical Site security	Baseline allowance and/or re-opener	No change proposed	Annex 1, Chapter 8
Cyber resilience	Baseline allowance and/or re-opener	New for RIIO-ED2	Annex 1, Chapter 8
Net Zero	Re-opener	New for RIIO-ED2	Overview, Chapter 4
Coordinated Adjustment Mechanism (CAM)	Re-opener	New for RIIO-ED2	Overview, Chapter 5
<b>Specific to RIIO-ED2</b>			
Strategic investment/Load related expenditure	Dependent on Model for strategic investment: could include volume drivers and/or re-opener	New/reformed for RIIO-ED2	Overview, Chapter 4
Street works costs	Re-opener	No change	Chapter 8
Rail Electrification	Re-opener	Reform for RIIO-ED2	Chapter 8
Electricity System Restoration (Black Start)	Re-opener	New for RIIO-ED2	Annex 1, Chapter 8

Name	Type of mechanism	Comparison to RIIO-1	Reference
Miscellaneous pass-through	Pass-through	No change	Chapter 8
Smart Meter interventions	Volume driver	No change	Chapter 8
Environmental legislation	Re-opener	New for RIIO-ED2	Annex 1, Chapter 9

8.10 Supporting information and our decision on the Net Zero re-opener, CAM, Distribution System Operation (DSO) and options for strategic investment are presented in the Overview Document.

### Uncertainty mechanisms to support substantial changes in external policy

8.11 A number of uncertainty mechanisms will help support DNOs following material changes in government policy that may lead to large changes in allowed revenues during the RIIO-ED2 period.

8.12 Information on such mechanisms relating to environmental legislation, Electricity System Restoration (black start), cyber and physical site security is provided in Annex 1.

### Tax review

**Table 5: Tax Review**

Tax Review	
Purpose	Enable us to formally review and, if necessary, to adjust the companies' tax allowance during RIIO-ED2.
Decision	We will introduce a tax review uncertainty mechanism.

### *Our Consultation position*

8.13 We proposed to align our approach to tax with the other RIIO-2 sectors by introducing the tax review uncertainty mechanism.

### *Responses to our Consultation*

8.14 There were mixed views on the tax review; some respondents agreed in principle with the introduction of a tax review whilst others raised concerns about the balance of the mechanism.

- 8.15 One DNO respondent noted that an additional review process could result in disproportionate cost and administrative burden if undertaken too frequently, and another suggested that a materiality threshold should be applied before determining whether to undertake a review.
- 8.16 A consumer body welcomed the proposal for a review mechanism to check company tax allowances, noting that an efficient process should first seek a resolution through engagement with a formal review as a backstop.

*Reasons for our decision*

- 8.17 Having considered the concerns raised in response to our Consultation we note that they were broadly in line with the responses received to our Draft Determinations for the gas and transmission price controls.<sup>11</sup>
- 8.18 Stakeholders have not raised any issues that would indicate a need for a departure from the cross-sectoral approach to the tax review for RIIO-ED2. This is in line with our understanding and expectation that the treatment of network companies by HMRC for corporation tax purposes does not differ on a sector-by-sector basis.
- 8.19 We refer stakeholders to our Final Determinations Finance Annex (Chapter 7)<sup>12</sup> in which we summarise the stakeholder responses received and set out our decision on and our rationale for introducing a tax review in the transmission and gas distribution sectors.
- 8.20 We consider a tax review uncertainty mechanism will enable us to establish whether the notional tax allowance remains appropriate, if any information comes to light during RIIO-ED2, which could indicate otherwise.
- 8.21 As noted in our Final Determinations, we intend to continue working with network companies to document the process and develop the submission templates and guidance required in time for their first regulatory submission.
- 8.22 We agree that efforts taken to achieve this should be proportionate and should not place any unnecessary regulatory burden on networks at the expense of the consumer.

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<sup>11</sup> Our proposal to introduce a tax review is set out at Chapter 7 of our Draft Determinations: [https://www.ofgem.gov.uk/system/files/docs/2020/07/draft\\_determinations\\_-\\_finance.pdf](https://www.ofgem.gov.uk/system/files/docs/2020/07/draft_determinations_-_finance.pdf)

<sup>12</sup> [https://www.ofgem.gov.uk/system/files/docs/2020/12/final\\_determinations\\_-\\_finance\\_annex.pdf](https://www.ofgem.gov.uk/system/files/docs/2020/12/final_determinations_-_finance_annex.pdf)

## Uncertainty mechanisms to align allowances with delivery

### Rail electrification

**Table 6: Rail electrification**

Rail electrification	
Purpose	To ensure that DNOs are funded efficiently for additional efficient costs diverting lines associated with the GB rail electrification programme.
Decision	To retain the RIIO-ED1 re-opener for the cost of diverting lines associated with the electrification of rail lines in GB.

#### *Our Consultation position*

8.23 We proposed to retain the RIIO-ED1 re-opener that allows DNOs to recover the costs of diverting electricity lines, as a result of Network Rail’s electrification programme, other than those costs that are recoverable from a third party.

#### *Responses to our Consultation*

8.24 Broadly, respondents supported the retention of a re-opener covering diversions as a result of Network Rail’s electrification programme. One respondent did not agree with the proposal to expand the re-opener’s scope to also cover projects that do not have a connection with Network Rail, noting that it may allow DNOs to recover funding from consumers that could be recovered through other means. This respondent also suggested the mechanism should include the ability to return funding to consumers if it is decided that third parties should fund the works.

#### *Reasons for our decision*

8.25 We believe that, given there remains a strong policy commitment from Government to rail electrification through to 2024 (which is expected to continue through the next railway control period into 2029), there continues to be a degree of uncertainty around the detailed implementation of electrification projects.

8.26 We therefore believe that we should retain the RIIO-ED1 re-opener for RIIO-ED2, and expand it to include both costs associated with Network Rail electrification projects and costs associated with projects from companies that may not have a connection with Network Rail.

## Uncertainty mechanisms for areas outside of DNOs' control

Table 7: Pass Through Mechanisms

DNO pass through mechanisms	
Purpose	Where DNOs have costs that are substantially outside their control we use pass-through mechanisms. For these items, any change in the DNOs' costs are recovered fully from customers.
Decision	We will retain the pass-through items in line with the RIIO-ED1 arrangements.

### Our Consultation position

8.27 We proposed to retain the pass-through items listed below in line with the RIIO-ED1 arrangements:

- **Ofgem licence fee** - To recover the actual cost of Ofgem licence fees
- **Business rates** - An adjustment of the up-front allowance to the actual costs incurred, subject to the relevant valuation agency revaluing any of the licensee's assets for the purposes of setting business rates and the DNO demonstrating that it has taken appropriate actions to minimise the valuations
- **Transmission connection point charges** - Charges from a transmission licensee for the connections between the DNO's network and the transmission system for assets installed prior to the RIIO-ED2 price control, refurbishment or any work not resulting from a DNO requirement
- **Smart Meter IT costs** - Efficient information technology costs to enable the DNO to use smart meter data on its network
- **Pension deficit repair mechanism** - To reset allowances for the established pension deficit following a reasonableness review
- **Ring fence costs** - Costs incurred directly from complying with additional regulatory requirements relating to modifications to the ring fence conditions in network operator licences
- **Data Communications Company (DCC) fixed costs** - Costs/fees that will be charged to the DNOs for use of the DCC services. These are called Smart Meter Communications Licensee costs in the licence.

### Responses to our Consultation

8.28 Respondents supported our proposal to retain the pass-through items that were identified in the Consultation.

### Reasons for our decision

8.29 Where DNOs have costs that are fully outside their control, pass-through mechanisms are used to fully recover any changes in DNOs' costs from consumers. This only takes place for specific cost areas, and we believe that the RIIO-ED1 scenarios will also apply in RIIO-ED2. We therefore consider it appropriate to retain the RIIO-ED1 arrangements for RIIO-ED2.

## **RIIO-ED1 Uncertainty Mechanisms for removal in RIIO-ED2**

8.30 This section sets out the RIIO-ED1 uncertainty mechanisms that we will remove for RIIO-ED2.

**Table 8: Uncertainty mechanisms we propose to remove for RIIO-ED2**

Name	Type of mechanism at ED1	Proposed treatment of costs for ED2
Load Related Expenditure	Re-opener	Dependent on model for strategic investment
High Value Projects	Re-opener	Dependent on model for strategic investment
Link Boxes	Re-opener	NA
Subsea Cables	Re-opener	NA
Innovation Rollout Mechanism	Re-opener	NA

### Load-Related Expenditure (LRE) and High Value Projects

#### *Our Consultation position*

8.31 Given the significant uncertainty surrounding the likely investment requirements needed to meet new sources of demand during RIIO-ED2, especially for transport and heat purposes, we consulted on a range of potential approaches to strategic investment. Some of these included the use of uncertainty mechanisms; however, we proposed that neither the LRE nor the HVPs mechanism would be retained in their current form.

#### *Responses to our Consultation*

8.32 The majority of respondents agreed with our proposals to remove the LRE and HVP re-openers in their current form, noting that there was a need for both to be

reconsidered within the structure of RIIO-ED2. Several respondents sought further engagement with Ofgem on how the HVP re-opener could be developed. One respondent disagreed with our proposals, outlining that there was scope for both mechanisms to be retained in their current form within the structure of RIIO-ED2.

#### *Reasons for our decision*

8.33 We do not consider the RIIO-ED1 LRE or HVP uncertainty mechanisms to be fit for purpose for RIIO-ED2, and will consider how they (or their alternatives) should be structured in line with the wider strategic approach to investment and supporting pathways to Net Zero in RIIO-ED2.

#### Link Boxes

##### *Our Consultation position*

8.34 Link box safety became a high profile issue due to a small number of incidents involving explosions under pavements as a result of water ingress.<sup>13</sup> We included a re-opener in RIIO-ED1 to provide network companies with additional funding to mitigate the risk of link box failure. We recognise that this risk has been addressed in RIIO-ED1, and we therefore proposed to remove this mechanism for RIIO-ED2.

##### *Responses to our Consultation*

8.35 All respondents agreed that the link box re-opener should be removed for RIIO-ED2.

##### *Reasons for our decision*

8.36 As outlined in our Consultation, we recognise that DNOs have addressed the risk of link box failure within RIIO-ED1. We therefore consider that we do not need a re-opener for link boxes in RIIO-ED2 and have removed this re-opener.

#### Subsea cables

##### *Our Consultation position*

8.37 We included a re-opener in RIIO-ED1 to provide Scottish Hydro Electric Power Distribution (SSEH) with additional funding to protect subsea cables should, it be

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<sup>13</sup> Link boxes are switching points used by the distribution networks.

required to do so following the publication of the National Marine Plan (NMP) in 2015.

#### *Responses to our Consultation*

8.38 The majority of respondents supported the removal of the Subsea cable re-opener. One respondent noted that the decision to remove this uncertainty mechanism may be premature as further costs could be incurred beyond the original expectation of the re-opener. However, that same respondent noted that this re-opener was bespoke to SSEH in RIIO-ED1, and should continue to be treated as such for RIIO-ED2, meaning it is the responsibility of DNOs to justify the proposal and design of such mechanisms within their business plans.

#### *Reasons for our decision*

8.39 Since the risk of SSEH being required to implement protection for subsea cables as a result of the NMP has been addressed in RIIO-ED1, we will remove this mechanism for RIIO-ED2 and instead ask SSEH to include future protection costs within their business plan as ex ante costs. We expect DNOs to justify any bespoke uncertainty mechanisms they may wish to include within their business plans for RIIO-ED2.

#### Innovation Rollout Mechanism

##### *Our Consultation position*

8.40 We provided a re-opener for network companies to rollout proven innovation in RIIO-ED1, known as the Innovation Rollout Mechanism (IRM). Our Framework Decision for RIIO-ED2, published in December 2019, confirmed that this mechanism was to be removed from the innovation programme.

##### *Responses to our Consultation*

8.41 Respondents agreed with the removal of the IRM, since wider changes to the arrangements for innovation are being made.

##### *Reasons for our decision*

8.42 As set out in the Framework Decision, the Innovation Rollout Mechanism will be removed from the innovation programme for RIIO-ED2.



## Approach to common design parameters for re-openers

- 8.43 When deciding whether to accept any uncertainty mechanisms proposed by companies' in their business plans, we will build on our approach to assessment from RIIO-ED1, and the recent Final Determinations for the RIIO-2 price controls for transmission and gas distribution.
- 8.44 In the RIIO-2 Final Determinations for transmission and gas distribution, we decided that we would apply a set of common design parameters that would apply as the default position for re-openers, noting that they would not necessarily apply to all re-openers. We consider these parameters should also apply to RIIO-ED2, since the framework for re-openers (and the nature of the uncertainties they are designed to address) is broadly comparable.

**Table 9: Common Design Parameters**

Common design parameters for re-openers	
Purpose	To provide clarity on the parameters and process relating to re-openers. Re-openers provide the opportunity for network companies to request amendments in allowances, outputs, or delivery dates during the price control, when there is more certainty.
Benefits	Protects both consumers and network companies from uncertainty around requirements, unknown and emerging risks/threats, new regulatory requirements, and technology changes.

### Our Consultation position

- 8.45 In line with the RIIO-2 proposals for the transmission and gas distribution sectors, we proposed to use re-opener mechanisms, where appropriate, to set or adjust allowances once there is more certainty on price and quantity. We also proposed common design parameters for re-openers, noting that there may be circumstances where this approach is not suitable and, in these circumstances, we would explain why it may be more appropriate to take a different approach.
- 8.46 We proposed that the Authority may make changes to outputs or expenditure allowances using re-openers. For the avoidance of doubt, allowances may be increased or decreased.

**Table 10: Re-opener Parameters**

Re-opener parameters	Consultation position
Re-opener application windows	Bring forward re-opener application windows from May to January. Reduce re-opener application window from one month to one week (ie last week of January).
Application requirements	Provide additional detail and guidance where possible in licence conditions and guidance.
Authority triggered re-opener	Authority can trigger a re-opener at any time during price control.
Materiality threshold	For each individual re-opener application, set a materiality threshold such that we will only adjust allowances if the changes to allowances resulting from our assessment, multiplied by the TIM incentive rate applicable to that licensee, exceeds a threshold of 1% of annual average base revenues (as set out in Final Determinations). Allow for aggregation of some re-openers.

### Responses to our Consultation

- 8.47 There were mixed views on the re-opener application windows. Several respondents supported moving the application window earlier in the process, though some believed January was too early in the year to be able to account for latest performance. One respondent proposed an additional window to allow DNOs to submit updated information, and three others did not support moving the application window from May. Several respondents agreed with the proposal to shorten the application window, noting that most DNOs provide their submissions in the final few days of the window. Most respondents recognised the importance of ensuring a decision on re-openers can be made in time for the Annual Iteration Process, but noted that allowing extra time for Ofgem to make the decision could affect its ability to make agile or timely decisions. There was broad support for the proposal to provide additional detail and guidance.
- 8.48 In relation to the Authority triggered re-opener, there were mixed views across respondents. Several respondents supported the principle of Ofgem being able to trigger a re-opener but noted that this should apply in specific circumstances and/or with dedicated windows. Most respondents, with the exception of a consumer body and a supplier, did not support the idea of Ofgem being able to trigger a re-opener at any point, with some noting that this could have implications on investor confidence.
- 8.49 Most respondents supported the use of materiality thresholds in relation to uncertainty mechanisms, but there were mixed views on how these should be

applied. Some respondents favour the application of a materiality threshold on a case-by-case basis, with several citing the example of the cyber resilience re-opener in the transmission and gas distribution price controls. There were mixed views on the proposal to allow the aggregation of some re-openers, with one respondent noting that aggregation should be supported by underlying rationale on the areas that are being aggregated.

## Reasons for our decision

### Application windows

- 8.50 We consider it appropriate for the relevant Regulatory Year(s) in which the re-opener application window is open, to be decided for each individual re-opener mechanism. We believe that reducing the application window from one month to one week will provide Ofgem and DNOs further certainty on when applications will be submitted, which will allow relevant parties to better plan their resources. As outlined in our Consultation, we will ensure the parameters of the application window(s) are clearly defined.<sup>14</sup>
- 8.51 We believe that bringing the re-opener application windows forward from May to January will allow a longer lead-time for Ofgem to clarify questions or gather further information from licensees. It will also ensure that informed and robust decisions can be made in time for that year's Annual Iteration Process (AIP). In line with the approach taken in the transmission and gas distribution price controls, the application window in the first year of the price control will be in the last week of April 2023, lasting one week.

### Application Requirements

- 8.52 We will provide additional information in licence conditions and in guidance on the level of detail and evidence required in re-opener applications, as well as the requirements or obligations on network companies when submitting their re-opener applications.<sup>15</sup>
- 8.53 We believe it is reasonable that applications should be submitted in accordance with these requirements, and that any applications that do not meet these

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<sup>14</sup> In RIIO-ED1, the parameters of application window(s) are set out in the Special Licence Conditions. This approach will continue in RIIO-ED2, specifying the relevant windows in the RIIO-ED2 licence.

<sup>15</sup> For example, this may include a requirement on network companies to publish their re-opener application publicly or provide assurance of its completeness.

requirements should be rejected on that basis. This will provide network companies with a strong incentive to ensure their applications are prepared in a way that provides us with the information we require to be able to make timely decisions.

- 8.54 We will consult on the guidance we produce and any subsequent amendments before it comes into effect.

#### Authority Triggered Re-openers

- 8.55 In line with the approach taken in the transmission and gas distribution price controls, we will make a decision on whether there should be an Authority-triggered re-opener on a case by case basis. Where the Authority trigger is included, this will be subject to the same scope and materiality threshold that applies to an application made by a licensee.

- 8.56 We believe that it is important to include the option for an Authority trigger for some re-openers, particularly where the re-opener may be triggered by changes that reduce a network company's workload.

#### *Materiality Threshold*

- 8.57 We consider that a materiality threshold ensures network companies manage non-material variations in expenditure and mitigates the regulatory burden for Ofgem that is associated with assessing myriad small cost claims from the network companies.
- 8.58 For each re-opener, the default position will be that adjustments to allowances will only be considered if the changes to allowances resulting from our assessment exceed a predetermined threshold. At this stage, we consider that a materiality threshold of around 1% of annual average base revenues (after application of the relevant totex efficiency incentive rate) would be an appropriate starting position. However, we are not making a decision on the threshold level at this stage and will consult on this through the Draft Determinations. At this stage, we also consider that we will apply the same threshold to individual re-openers triggered by the Authority, but again we will consult on this through the Draft Determinations.
- 8.59 We have decided not to include an aggregation process for re-openers to meet the materiality threshold. We recognise that there may be circumstances in which

a number of individual re-openers may fail to meet the proposed common materiality threshold,<sup>16</sup> but cumulatively may have a material impact. However, we consider that there should be a high bar for any adjustments to allowed revenues through the re-opener process, and allowing re-openers to be aggregated may increase the risk of adjustments being made to allowed revenues that should otherwise be managed by network companies. We also believe that allowing re-openers to be aggregated could reduce the effectiveness of the materiality threshold in driving network companies to manage their allowances in the most efficient way.

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<sup>16</sup> 1% of annual average base revenue as set in Final Determinations.

## 9. Increasing competition

### Chapter summary

Competition in the design and delivery of energy networks is a central aspect of RIIO-ED2. It has a key role to play in driving innovative solutions and efficient delivery that can help us meet decarbonisation targets at the lowest possible cost to consumers.

In our RIIO-ED2 Framework Decision, we confirmed our intention to increase the use of competition where it is in the interests of consumers. This chapter sets out our approach to native, early and late competition in the RIIO-ED2 price control.

### Introduction

- 9.1 In RIIO-ED2 we are looking to expand the use of competition where it is in consumers' interest. Our focus has been on the expansion of late model competition, the introduction of early model competition, and a refinement of how we consider and incentivise the competitive processes already incentivised by the totex incentive mechanism, which we have previously termed 'native competition'.
- 9.2 In our Consultation, we sought views on early and late forms of competition, on the specific delivery models of late competition, and on the optimal way to identify and repackage projects for late model competition.
- 9.3 We published our Late Model Competition Impact Assessment for the electricity distribution sector alongside the Consultation document and sought stakeholder views on its assessment.<sup>17</sup>
- 9.4 We received responses from 18 stakeholders to our competition questions, with eight of those responses coming from network companies. Network companies said that a large proportion of work they undertake is already subject to some form of competitive process and largely disagreed with the introduction of new forms of competition. Engagement on native competition questions was high, with only half as many responding to the early and late model competition questions.

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<sup>17</sup> See [https://www.ofgem.gov.uk/system/files/docs/2020/08/ed2\\_ssmc\\_late\\_competition\\_ia\\_0.pdf](https://www.ofgem.gov.uk/system/files/docs/2020/08/ed2_ssmc_late_competition_ia_0.pdf)

## Native competition

### Our decision

**Table 11: Native competition**

Purpose	Native competition is the status quo model for competition, and concerns how a network company may aim to minimise its costs through competitive processes and procurement.
Decision	We will not require DNOs to produce a competition plan as part of their business plans as we did for the transmission and gas sectors.

### Our Consultation position

- 9.5 The status quo model for competition is native competition, incentivised by the totex incentive mechanism. Here, the regulator sets a cost allowance to meet an identified system need (eg a network constraint). A network operator then faces incentives to minimise the costs associated with meeting that system need, including using competitive processes and procurement where appropriate to find the most efficient solution. Any savings are ultimately shared with the consumer under the totex incentive mechanism.
- 9.6 In our Consultation, we asked stakeholders for their views on whether they agreed with our proposals to not replicate the approach to native competition adopted in the other sectors by assessing a commitment to our native competition best practices principles within their business plans, and instead focus on delivery through our flexibility and DSO incentive proposals.<sup>18</sup>

### Responses to Consultation

- 9.7 Eighteen stakeholders specifically addressed our Consultation question on whether our flexibility proposals sufficiently incentivised native competition. DNOs were generally satisfied with Ofgem's approach and supported the proposal to not require a competition plan.

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<sup>18</sup> Please see Chapter 5 of this annex for our latest thinking on flexibility.

- 9.8 Suppliers generally considered that for DNOs to seriously consider flexibility they would require a network utilisation incentive. These stakeholders also proposed other initiatives to increase flexibility considerations when DNOs make decisions.
- 9.9 Two non-network stakeholders proposed that Ofgem should keep monitoring the costs and benefits of the DSO and one stakeholder proposed that we ensure that network companies continue to perform against the expectations for increased consideration of flexibility.

### Reasons for our decision

- 9.10 We have decided to adopt our Consultation proposal to not require DNOs to produce a competition plan as part of their Business Plan.
- 9.11 We do not think there is any value added by introducing a requirement to adhere to the best practice principles for native competition as we consider that these are already sufficiently covered through our flexibility and DSO proposals.

## Early model competition

### Our decision

**Table 12: Early model competition**

Purpose	Early competitions have the potential to allow economic and efficient non-network solutions to compete with traditional network solutions to resolve network needs.
Decision	We will await the ESO's Early Competition Plan (ECP) in 2021 before carrying out further development or making final decisions on early competition in electricity distribution.  We have asked DNOs to flag projects over £50m in their business plans that may be suitable to undergo early competition.

### Our Consultation position

- 9.12 In our Consultation, we set out how early competitions could produce benefits for consumers by revealing new or innovative ways of solving network problems (such as network constraints) and avoiding expensive reinforcement costs (for instance, by using flexibility providers or utilising other non-network solutions). Even where traditional build solutions are the only realistic option, early



competitions can play a role in revealing the best ways of designing, constructing, financing, operating, or maintaining network assets.

- 9.13 We noted that there might be similarities with some of the activities included in DSO functions within the ED sector, although we considered that in many cases early competition would go beyond these. We sought views from stakeholders on these issues.
- 9.14 We further said we would consider the ESO's Early Competition Plan<sup>19</sup> for transmission and gas, due to be published in the first half of 2021, including any aspects concerning the role of the ESO and the viability of the proposed model of early competition in the electricity distribution sector.
- 9.15 Finally, we proposed carrying out an impact assessment on the potential effect of early competition on the electricity distribution sector after the publication of the ESO's Early Competition Plan.

## Responses to Consultation

### Similarities between DNO early competition roles and existing DSO functions

- 9.16 We received 10 responses to the specific question addressing the roles of DNOs in early competition.
- 9.17 Most network companies said that there are similarities between the activities of the DSO function and those required for early competition. Two network companies stated that the DNO was better suited to run early competitions than the ESO, which would require a duplication of resources.
- 9.18 Consumer representatives and suppliers stated there were similarities between DNO early competition roles and existing DSO functions that would predispose DNOs to running early competition. However, two stakeholders noted that, while in theory the DNOs are best placed, they may have conflicting priorities. This viewpoint was echoed by another consumer representative that suggested far greater transparency and separability of the DSO function within the DNO. One respondent highlighted that industry would be highly dependent on the provision of timely information from DNOs.

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<sup>19</sup> For more information or to see the most recent publications from the ESO, please visit <https://www.nationalgrideso.com/future-energy/projects/early-competition-plan>

### Approach to our early competition proposals

9.19 Network companies provided a range of responses when commenting on our early competition proposals. Some were not convinced that early competition was needed in addition to the native competition that already exists; others noted that Ofgem should wait for the ECP to be published and then develop next steps considering its findings and two supported our position on early competition in principle.

### Role of the ESO in early competition

9.20 Noting the earlier concerns around potential conflicts of interest in terms of designing and running early competitions, one respondent proposed a possible role for the ESO in early competition similar to its role in capacity markets. This was supported by another respondent that emphasised the inherent conflict of a company running and competing in the same competition and encouraged the involvement of a third party.

### **Reasons for our decision**

9.21 We remain of the view that there is a strong likelihood that early competition could produce benefits to consumers in the electricity distribution sector.

9.22 We have decided to consider the ESO's Early Competition Plan following its publication in the first half of 2021 as we proposed in our Consultation.

9.23 We have also decided to carry out an IA on the potential effect of early competition in the electricity distribution sector after the publication of the ESO's Early Competition Plan.

9.24 We have decided that DNOs must flag projects over £50m in value in their business plans, which we consider may potentially be suitable for early competition. We think it is appropriate to take this approach, which aligns with the approach taken in the transmission and gas sectors,<sup>20</sup> to ensure that we are best placed to be able to progress with early competitions in RIIO-ED2, pending any further decisions to be made.

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<sup>20</sup> Please see Chapter 10, paragraph 10.115 of our RIIO-2 Sector Specific Methodology Decision Document, available here: [https://www.ofgem.gov.uk/system/files/docs/2019/05/riio-2\\_sector\\_specific\\_methodology\\_decision\\_-\\_core\\_30.5.19.pdf](https://www.ofgem.gov.uk/system/files/docs/2019/05/riio-2_sector_specific_methodology_decision_-_core_30.5.19.pdf)

9.25 DNOs are invited to further indicate to us in their Business Plans any of these projects that they consider might not be suitable for early competition, eg where there is not a reasonable likelihood of contestability (by which we mean whether or not there are different potential solutions to a network problem). This aligns to what we asked network companies to produce in the other sectors.

## Late model competition

### Our decision

**Table 13: Late model competition**

Purpose	Late competitions can reduce the costs of project construction and operation and introducing innovation into project delivery, as well as new sources of labour and capital.
Decision	<p>We have decided to continue the development of all three proposed late competition models: Competitively Appointed Distribution Owner (CADO), Special Purpose Vehicle (SPV) and Competition Proxy Model (CPM).</p> <p>We confirm the criteria for assessing projects that may be suitable for late model competition in the electricity distribution sector (new, separable, high-value).</p> <p>We will continue to consider appropriate processes for identifying suitable candidate projects for late competition, and on ways of repackaging projects, where appropriate.</p>

### Our Consultation position

9.26 In our Consultation, we set out how we consider late competitions can produce benefits to consumers by reducing the cost of project construction and operation and introducing innovation into project delivery, as well as new sources of labour and capital.

9.27 We set out three proposed models of late competition (CADO, SPV, CPM)<sup>21</sup> and three high level criteria used for identifying suitable projects (new, separable, high-value), developed in the context of the electricity transmission sector, that we considered could be applied to the distribution sector. We sought stakeholder views on these models and their applicability to the electricity distribution sector.

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<sup>21</sup> Please see Chapter 12, paragraph 12.28 of our ED2 Sector Specific Methodology Consultation for an overview of these models:  
[https://www.ofgem.gov.uk/system/files/docs/2020/07/ed2\\_ssmc\\_annex\\_2\\_keeping\\_bills\\_low\\_0.pdf](https://www.ofgem.gov.uk/system/files/docs/2020/07/ed2_ssmc_annex_2_keeping_bills_low_0.pdf)

- 9.28 We published our Late Competition IA for the electricity distribution sector (based on a previous competition IA published as part of the RIIO-2 process for transmission and gas distribution) alongside the Consultation and sought views from stakeholders on this.
- 9.29 For identifying projects suitable for late model competition, to produce a forward looking project pipeline, we sought views on options including extending the NOA to the 132kV network, assessing a project's suitability for late model competition when assessing the needs case of the project, and utilising or amending other existing network planning processes such as the DNO's Distribution Future Energy Scenarios (DFES).
- 9.30 Finally, we proposed the repackaging of projects, where appropriate, when considering whether they meet the criteria for late competition.

## **Responses to Consultation**

### Impact assessment and possible benefits

- 9.31 We received seven responses on our late competition impact assessment (IA). DNOs were largely critical of the IA, with many citing a lack of quantified benefits and incorrect or optimistic costs.
- 9.32 Network companies differed on whether they expected there to be any benefits from late model competition. Generally, network companies were sceptical, and responses ranged from suggesting there would be no benefits to those who could see limited benefits.
- 9.33 One other stakeholder commented on the impact assessment and agreed that late competition would not introduce any significant additional tender or financing cost.

### Late competition models

- 9.34 Network companies were generally critical of the late competition models proposed by Ofgem. Some network companies believed that the benefits of CPM and SPV could be realised in RIIO-ED2 without the introduction of late model competition. Further, one network company argued that CPM is unnecessary in distribution when compared to transmission, as real competition already exists between DNOs.

- 9.35 Several network companies considered that the implementation of the CADO model would require changes in the legal framework. One company commented that the SPV model is not lawful because it would require DNOs to outsource license obligations.
- 9.36 Two companies said that the CPM is not well developed and Ofgem's decision not to apply it in a recent network project indicates that it is not a viable model. One company also noted that a PFI approach masks a fundamental misalignment between the incentives of a project finance project and those delivered by a distribution company.
- 9.37 One non-network respondent was broadly supportive and it considered the CADO/CATO model offers the best opportunity for realising the benefits from competition, as it requires bidders to offer solutions with the widest possible scope - covering equipment design, procurement, financing, construction, and operation. The tender process would also be run independently of the DNO, thereby eliminating potential conflicts. A respondent representing consumers was generally supportive of the proposals if they provided benefits to consumers.

#### Project Identification

- 9.38 All respondents agreed that in the first instance the DNO was best placed to flag projects suitable for late model competition.
- 9.39 DNOs generally supported the proposed criteria (new, high value and separable) for identifying projects for late model competition. They also agreed that they were best placed to highlight relevant projects in their business plans.
- 9.40 One network company disagreed with the wording of the criteria, arguing that it would not be appropriate if competition was applied to assets which are integral to the distribution network, regardless of whether the criteria are met.
- 9.41 Two network companies highlighted that distribution networks have a different design to transmission networks, and this could lead to difficulties in meaningfully applying the 'separable' criterion.
- 9.42 One network company considered the £100 million threshold for competition was a starting point but may prove to be too low.

9.43 Conversely three non-network respondents considered that a lower value threshold for late model competitions may be more appropriate. One commented that the threshold could be based on project sizes that are currently targeted by IDNO/ICP developers.

#### Project Repackaging

9.44 DNOs provided a range of responses on Consultation questions associated with repackaging projects.

9.45 One network company considered that project repackaging should be focused on net consumer benefits and would require bespoke assessments.

9.46 A different network company considered that repackaged projects would be unlikely to yield many benefits since the fragmentation would result in several low value opportunities for investors. It also considered that the fragmentation of network assets could cause integrity concerns.

9.47 A further network company considered that repackaging could result in delays. In particular, they expressed concern that this could affect EV charging delivery.

9.48 Additionally, distribution network companies proposed that Ofgem consider the following factors in considering packaging:

- Geographical dispersion of smaller projects, and scope, which can vary significantly
- Coordination of numerous network outages at different sites
- Risk of delays
- Volume and prioritisation of work which is typically developed to manage risks and costs
- Variation in drivers behind different interventions
- How to consistently monitor and report on projects if they are provided by a range of third parties

9.49 Some DNOs requested clarity on the expected benefits of project repackaging compared to the existing arrangements (which incentivise cost efficient and benchmarking), guidelines on how companies should package projects, and examples of the types of projects which would be repackaged.

- 9.50 Respondents representing the views of consumers were supportive of the range of options for packaging projects. One noted that the size of the packages should be determined by investor and business appetite.

## **Reasons for our decision**

### Impact assessment and possible benefits

- 9.51 We do not consider it is necessary to republish our impact assessment for late model competition at this time, and having considered the Consultation responses we are of the position that there is no new information available that would materially impact the IA.
- 9.52 As stated in our July IA,<sup>22</sup> we will carry out project specific cost-benefit assessments for projects that are identified as suitable candidates to undergo a late competition model process.

### Late competition models

- 9.53 We have decided to implement our proposal of using the criteria for late competition developed in the context of the transmission and gas sectors (new, separable, high-value) in the electricity distribution sector. Having considered Consultation responses we have decided that these are appropriate criteria for electricity distribution. We do not think that there are any material reasons why these criteria should be different across the sectors.
- 9.54 We have decided that DNOs must flag projects over the £100m high-value criterion in their Business Plans. DNOs must further provide their assessment of these flagged projects against the separable and new criteria. This decision aligns to what we asked network companies to produce in the other sectors.
- 9.55 As proposed in the Consultation we, have decided to continue to develop all three models of late competition (CADO, SPV, and CPM) for potential use in RIIO-ED2. As proposed in the Consultation we, have decided to continue to develop all three models of late competition (CADO, SPV, and CPM) for potential use in RIIO-ED2. For the avoidance of doubt, this is not a decision that all models will be implemented in RIIO-ED2, which will be done on a case by case basis.

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<sup>22</sup> Please see paragraph 5.9 of the RIIO-ED2 SSMC Late Competition IA, available at: [https://www.ofgem.gov.uk/system/files/docs/2020/08/ed2\\_ssmc\\_late\\_competition\\_ia\\_0.pdf](https://www.ofgem.gov.uk/system/files/docs/2020/08/ed2_ssmc_late_competition_ia_0.pdf)

#### Project Identification

9.56 We have decided to carry out further work to decide on which specific, or mix of, processes are most appropriate to identify a pipeline of suitable candidate projects for late model competition.

#### Project Repackaging

9.57 We have decided to carry out further work to consider potential mechanisms and principles for project packaging that may be applied in RIIO-ED2. This will need to be informed by the approaches for identifying projects to ensure that the processes align. We are not making a decision at this time on whether or how to utilise project packaging in late competition for RIIO-ED2.



## 10. Incentivising ambitious business plans and their delivery

### Chapter summary

In this chapter, we describe our approach to incentivising the submission of high-quality and ambitious business plans from the DNOs for RIIO-ED2 and the delivery of efficient expenditure.

**Table 14: Totex Incentive Mechanism and Business Plan Incentive**

Purpose	To incentivise the delivery of efficient expenditure and the submission of high-quality and ambitious DNO business plans
Decisions	<p>We will set TIM incentive rates for RIIO-ED2 based on our level of confidence in our ability to independently set a cost allowances. Each DNO's TIM incentive rate will be determined by the balance of high-and-lower confidence baseline costs within its totex allowance as measured by the Confidence Dependent Incentive Rate (CDIR).</p> <p>We will introduce the Business Plan Incentive with absolute rewards and penalties.</p>

### Introduction

- 10.1 The Totex Incentive Mechanism (TIM) is designed to encourage companies to improve efficiency in the delivery of Business Plans. It is intended to ensure that the benefits of these efficiencies are shared with consumers while providing some protection to companies arising from overspending, as these overspends are also shared with consumers. We set an incentive rate (the TIM incentive rate), which determines the proportion of underspend that can be retained, and the proportion of overspend that is borne by the company. In our Consultation, we proposed the methodology for implementing the Confidence Dependent Incentive Rate (CDIR) as a means of setting the TIM incentive rate.
- 10.2 We also need to ensure that companies are encouraged to prepare high-quality, ambitious business plans for RIIO-ED2. In our Consultation, we proposed the implementation of the Business Plan Incentive (BPI) for this purpose.

10.3 The rest of this chapter sets out our decisions and reasoning in these two areas.

## Confidence Dependent Incentive Rate (CDIR)

### Our decision

10.4 For RIIO-ED2 the TIM incentive rate will be determined using the CDIR approach.

10.5 The TIM incentive rate will be based on a metric of confidence, calculated as the ratio of high-confidence baseline costs to totex, where our independent baseline for high-confidence baseline costs is the numerator and the company's overall totex allowance is the denominator. High-confidence baseline costs are those costs where we have a high level of confidence in our ability to independently set a cost allowance.

10.6 A single TIM incentive rate for each company will be calculated based on the balance of high-confidence and lower-confidence baseline costs included in final totex allowances. The rate will remain the same for the whole RIIO-ED2 period.

10.7 Our baseline for setting cost allowances should be constructed from information that is substantially independent of company forecasts. Where either we already have this information, or companies can provide such independent baseline information, they will receive a higher TIM incentive rate. Therefore, if companies wish to do so, they will be able to submit information in support of a view that certain costs should be classified as high-confidence baseline costs and Ofgem will assess this information. We consider that the following types of information may be relevant to Ofgem's consideration of whether certain costs should be classified as high-confidence baseline costs:

- realised actual costs in RIIO-ED1
- evidence that cost forecasts have been arrived at via a competitive process or other market testing
- other independent benchmarking (eg industry or international benchmarks)
- costs where we are able to determine a unit cost allowance with a high degree of confidence and where an appropriate volume driver or other uncertainty mechanism will be implemented and applied to a volume drawn from a baseline scenario volume

- 10.8 This is not an exhaustive list and we will take into account other evidence that companies may propose that meet the test of serving as an independent benchmark. We will therefore not determine which costs are high-confidence until after we have received business plans.
- 10.9 We intend to assign high-confidence baseline costs with a 50% incentive rate and other costs with a 15% incentive rate.<sup>23</sup>
- 10.10 Our assessment of business plans for the purpose of the BPI will be carried out and rewards or penalties applied at the level of the company, rather than the level of the licensee.

### **Our Consultation position**

- 10.11 We have decided to implement the proposal that we set out in our Consultation. The Consultation position was therefore the same as the arrangement described in the 'our decision' section above.

### **Responses to Consultation**

- 10.12 Responses to our Consultation were mixed. All of the respondents that are not DNOs expressed support for the proposals. DNO respondents were either not supportive of the proposals or did not explicitly state whether or not they were supportive of the proposals but requested further clarity on aspects of the proposal.
- 10.13 One DNO said that it had a concern "around the blended nature of the sharing factor and how this interacts with highly ambitious and innovative business plans".
- 10.14 Another DNO said that it did not agree with the proposal as sharing factors should instead be set based on the efficiency of proposed costs.
- 10.15 Another DNO requested further clarity around the types of evidence Ofgem will accept in its consideration of whether certain costs should be classified as high-confidence baseline costs.

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<sup>23</sup> The TIM efficiency incentive rates referred to in this section are the effective incentive rates (after paying tax) faced by network companies.

10.16 On the proposed incentive rate range (50% attributed to high-confidence baseline costs and 15% attributed to lower-confidence baseline costs), one DNO said that Ofgem should consider sharing factors in excess of 50%. Conversely, the RIIO-2 Challenge Group commented that a number of companies in the Transmission and Gas Distribution sectors had provided weak justifications for their proposed expenditure and that Ofgem should consider reducing the rate attributed to lower-confidence baseline costs from 15% to zero “so that companies would be incentivised to provide stronger evidence to justify their plan”.

### **Reasons for decision**

10.17 A TIM incentive rate determined by Ofgem via CDIR approach would reflect our level of confidence in our ability to set cost allowances for different types of activity, without being influenced by companies’ submissions.

10.18 If we have lower confidence in our ability to set costs independently, then subsequent variations in actual expenditure against budgets may only be partly attributable to improvements or deterioration in efficiency. Errors in setting allowances, along with inflated cost submissions may also be factors. The greater the proportion of such lower-confidence baseline costs contained in a company’s business plan, the lower the proportion of cost overruns or saving the company will be exposed to. We believe that this way of treating uncertain costs is fair to both companies and consumers.

10.19 The inverse is true in relation to high-confidence baseline costs, where Ofgem is more likely to be able to set cost allowances nearer to the outturn level of cost. Equally, if companies are able to underspend against allowances in these areas, it is more likely that such underspends will arise from improved efficiency, rather than inaccuracies in the setting of allowances at the price control.

10.20 Where we determine that certain costs are lower-confidence baseline costs, this means that we have not identified a relevant independent benchmark in respect of these costs. This does not in itself imply that the DNO has failed to provide sufficient justification that the cost should be included in totex allowances (indeed, insufficiently justified costs would not be included in totex allowances). It is instead a recognition that there is a higher level of certainty surrounding certain costs and a lower level of certainty surrounding other costs. Under the approach we will use in RIIO-ED2, we actively seek to address this issue and to

mitigate the negative effects on both consumers and companies of setting allowances where there is less certainty in the efficient level of cost.

- 10.21 Some respondents to our Consultation requested further detail on the types of evidence that we would consider in our assessment of whether certain costs are high-confidence baseline costs. We have set out above the types of evidence that we believe may be relevant to this decision. As stated above, the list is not exhaustive, and we do not intend to set out an exhaustive list of all potentially relevant types of evidence. This is because DNOs may be able to provide relevant evidence of a type that we are not currently aware of.
- 10.22 Alongside the use of the CDIR approach in RIIO-ED2 we will also undertake a rigorous cost-assessment process. We will use all of the tools at our disposal in order to set realistic and challenging cost allowances.
- 10.23 In relation to the incentive rate range, for the upper end, we believe 50% is appropriate. There is regulatory precedent for setting an incentive rate of 50%. For example, several companies in RIIO-1 have been assigned incentive rates at or around this level and Ofwat's cost sharing mechanism is centred on a rate of 50% (ie where Ofwat's view and the company view of totex are 100% aligned). In addition, the CMA determined in regulatory appeals made by Bristol Water plc<sup>24</sup> and Northern Ireland Electricity Limited<sup>25</sup> that the relevant rate should be 50%.
- 10.24 For the lower end of the range, our analysis indicates that, in RIIO-1, a company would need a combination of a 10-15% incentive rate and perceive its 'true' cost of equity to be significantly lower than the allowed cost of equity in order to marginally prefer not to underspend. In reality, our expectation is that the TIM incentive rates that will apply in RIIO-ED2 will be higher than the minimum of 15%. This is because a weighted average incentive rate of 15% would only be achievable if a business plan contained no costs assessed to be high-confidence baseline costs. We consider this to be an unlikely outcome.

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<sup>24</sup> Bristol Water plc. A reference under section 12(3)(a) of the Water Industry Act 1991 Report, Competition and Markets Authority Final Determination, 6 October 2015, paragraph 3.54(c)

<sup>25</sup> Northern Ireland Electricity Limited Price Determination. A reference under Article 15 of the Electricity (Northern Ireland) Order 1992, Final Determination, 26 March 2014, Paragraph 5.93.

10.25 The 15-50% range is also the range that we have used in the calculation of rates in the gas distribution and transmission sectors. We note that the TIM incentive rates applicable in RIIO-T2 and RIIO-GD2 are significantly higher than 15%.

## Business Plan Incentive

### Our decision

10.26 We have decided to implement the BPI in RIIO-ED2 using the methodology set out below.

10.27 Business plans will be assessed in the following way:

- **Stage 1:** We will carry out a qualitative assessment of business plans in order to ensure that they meet a set of minimum requirements. The assessment will result in either a pass or fail rating for each business plan. The minimum requirements will be set out in the Business Plan Guidance and seek to ensure that business plans are sufficiently complete and of sufficiently high quality to enable Ofgem to set the price control effectively. If Ofgem were to find that a plan has failed Stage 1, an upfront penalty of 0.5% of allowed totex will be levied on the company. Where this is the case, the company will not be eligible for any reward under stages 2 or 4 of the BPI but could still be penalised under Stage 3.
- **Stage 2:** We will carry out an assessment of what additional value the business plan offers to consumers, beyond the minimum requirements the plan offers and beyond the functions typically undertaken by an energy network company as business as usual. In their CVP proposals, companies should demonstrate the additional value that these will generate for consumers. Where a reward is given, it will be reflective of this additional value. The reward may be linked to delivery where relevant.<sup>26, 27</sup>
- **Stage 3:** We will review the forecasts for costs assessed by Ofgem to be lower-confidence baseline costs included in companies' plans. Any such costs deemed to be poorly justified and removed by Ofgem from the companies' forecasts through this cost assessment process would be subject to a penalty. The size of the

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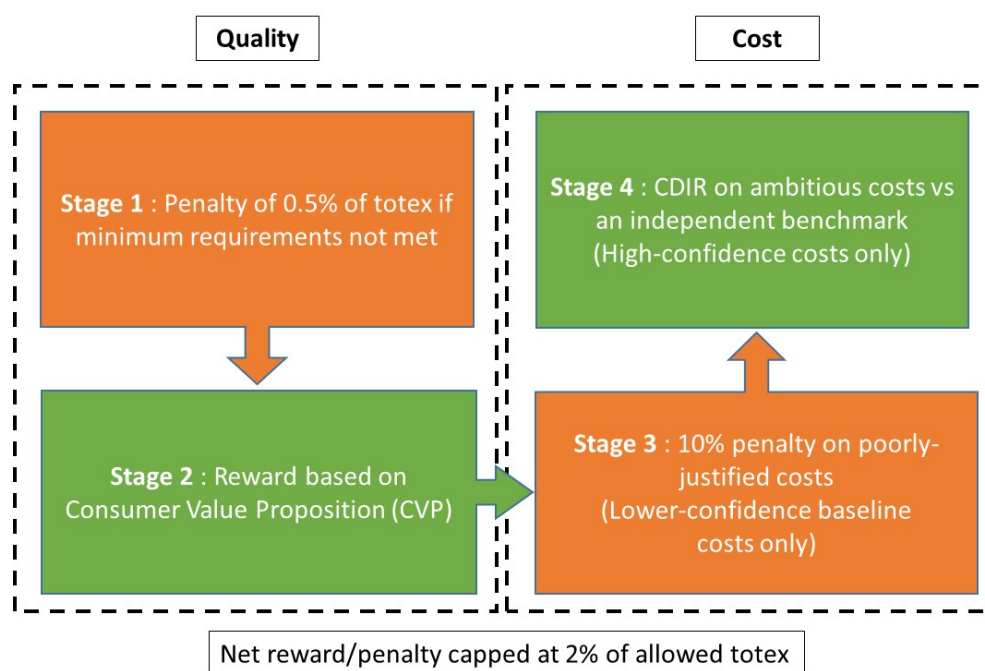
<sup>26</sup> Where the CVP proposal relates to something that is to be delivered within RIIO-ED2, we intend to put in place arrangements to claw back rewards under Stage 2 in the event of non-delivery or partial delivery.

<sup>27</sup> It may be the case that companies include additional costs in their forecasts associated with the delivery of CVP proposals. Where this is the case, any reward under the CVP will be based on the benefit that arises from the proposal net of these costs.

penalty would be 10% of the value of those poorly justified lower-confidence baseline costs removed by Ofgem from the companies' forecasts.

- **Stage 4:** We will review the cost forecasts for costs assessed to be high-confidence baseline costs included in companies' plans. An upfront reward would be available to companies that submit forecasts lower than a benchmark that Ofgem would otherwise have used in setting the allowance.<sup>28</sup>

Figure 2: The Business Plan Incentive



10.28 In relation to Stage 1, any decision that a business plan has failed Stage 1 would be taken after we have carried out an assessment of the materiality of any failures of individual minimum requirements. This materiality assessment would include the following considerations:

- The number of minimum requirements that have been failed.
- The extent to which our assessment of information to set the RIIO-ED2 price control has been impacted by the failure(s) in question (for example, due to missing or incomplete information).
- Any consumer detriment that may be expected as a result of the failure(s) in question.

<sup>28</sup> This benchmark could be derived from an econometric model. Where this is the case, the model is likely to include historical or forecast costs submitted by network companies. Such a benchmark would not be wholly independent of information provided by the network companies. However, Ofgem may still regard costs derived from a robust econometric model as high-confidence baseline costs. Notwithstanding this caveat, we refer to such benchmarks as 'independent benchmarks' in this chapter.

- Any other information relevant to an assessment of the materiality of the failure(s) in question.

10.29 In relation to Stage 2, we expect each CVP proposal to fall into one of the following categories:

- i) Proposals that demonstrate approaches to DSO activities that clearly go beyond the baseline expectations set out in our roles and principles for DSO (set out in Appendix 1 of the main RIIO-ED2 Methodology Decision document)
- ii) Proposals that demonstrate approaches to providing services to large connection customers that clearly go beyond our baseline expectations (set out in Appendix 2 to Annex 1 of the RIIO-ED2 Methodology Decision)
- iii) Proposals that demonstrate approaches to supporting vulnerable consumers that clearly go beyond our baseline expectations (set out in Appendix 3 to Annex 1 of the RIIO-ED2 Methodology Decision)
- iv) Proposals that clearly go beyond our baseline expectations of the Environmental Action Plans (set out in Appendix 4 to Annex 1 of the RIIO-ED2 Methodology Decision).
- v) Proposals that clearly go beyond the minimum requirements that we have set out for whole system approaches (to be set out in the Business Plan Guidance).

10.30 DNOs must, as a minimum requirement under BPI Stage 1, submit complete and quality business plan strategies and Environmental Action Plans (EAPs), demonstrating that the baseline expectations in each of these areas will be met in RIIO-ED2. Where DNOs strategies exceed the baseline expectations, these may be eligible for a reward under the CVP.

10.31 In relation to items i) – iii) in the list above, DNO performance will also be assessed against these baseline expectations, as part of separate ODIs relating to DSO, vulnerability, and major connections respectively.

10.32 We will assess the CVP proposals contained in DNOs' final business plans and consult on our proposed position in relation to those proposals in the Draft Determinations.

10.33 Where a CVP proposal relates to the delivery of something within the RIIO-ED2 period and is rewarded, Ofgem expects to determine the size of the reward by multiplying the net consumer value by the company's TIM incentive rate. This is



to help ensure that companies do not spend more in delivering the benefit than the value of that benefit to consumers.

10.34 In order to help ensure that DNOs' CVPs consist of high-quality proposals that can evidence clear additional value to consumers, we will set a minimum level of value to consumers per accepted CVP proposal as well as a limit on the number of proposals that may be brought forward.<sup>29</sup> The minimum value will be set at £3m per proposal<sup>30</sup> and the maximum number of proposals that may be included in each DNOs' plan will be 10.<sup>31</sup>

### Responses to Consultation

10.35 Responses to our overall Consultation position on the BPI were mixed. Respondents that are not DNOs generally expressed support for using the BPI as proposed in our Consultation.

10.36 A consumer representative body in Scotland said that it broadly agreed with the proposed design of the BPI but suggested that Ofgem must set out in the Draft Determinations how it has taken stakeholder views into consideration when making decisions. The RIIO-2 Challenge group said that the proposal was "an improvement on the original version used to incentivise RIIO-2 plans in other sector".

10.37 DNO respondents were generally not supportive of the proposals or requested further clarity on aspects of the proposals.

10.38 On our proposal to use the content of draft business plans in the setting of baseline expectations in a number of areas (and the potential for issuing rewards to DNOs under BPI Stage 2 where we incorporate proposals into an enhanced set of baseline expectations for the sector) DNOs were generally not supportive. Some DNOs commented that there may be insufficient time for Ofgem to review draft plans, revise baseline expectations and for DNOs to test proposals with local stakeholders before incorporating the effect of any such changes into their final business plans. One DNO commented that DNOs' plans will be based on the inputs from its local stakeholders and CEGs and that imposing new standards (on

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<sup>29</sup> That is, the value to consumers associated with the proposal must be at least this amount.

<sup>30</sup> We note above at footnote 27 that companies might include additional costs in their forecasts associated with the delivery of CVP proposals. The £3m level mentioned here refers to the 'gross' value to consumers, regardless of whether any such costs have been included in forecasts and, for the avoidance of doubt, prior to any application of the TIM incentive rate as described in paragraph 10.33.

<sup>31</sup> This limit applies where applicable at the DNO group level and not the licensee level.

the basis of the contents of other DNOs plans) may not be reflective of its own stakeholders' priorities. Other respondents were generally supportive of the suggestions.

10.39 A UK consumer representative body said that it supported the proposed limit on the areas that could be eligible for a CVP reward but suggested that we add another category to the five proposed in the Consultation: relating to a new overarching licence condition to treat customers fairly.

10.40 One DNO said that Ofgem should consider limiting the proposed number and value of projects further than indicated in the Consultation, to ensure that DNOs focus on only the strongest candidate proposals.

10.41 Another DNO suggested that the CVP proposal could be modified, with Ofgem assigning a grade to each CVP proposal in the business plan, with a percentage of revenue rewarded to each proposal based on the assigned grade.

## **Reasons for decision**

### **Stage 1**

10.42 In relation to Stage 1 of the BPI assessment, we consider that it is appropriate to put in place a penalty to ensure that companies are discouraged from submitting incomplete or poorly justified business plans. As the Stage 1 minimum requirements assessment would result in either a pass or a fail rating, a fixed penalty will apply to business plans that fail at Stage 1.

10.43 We believe that a penalty of 0.5% of allowed totex for failing Stage 1 of the assessment would provide a sufficient incentive for companies to apply the necessary effort to provide us with a business plan that is of an acceptable standard. We believe that all companies should be able to meet the minimum requirements, thereby avoiding a penalty for failing Stage 1 and becoming eligible for a potential reward under the reward stages of the BPI.

### **Stage 2**

10.44 In the Stage 2 assessment, Ofgem will consider how and to what extent business plans have demonstrated additional value to consumers and any reward determined by Ofgem will be commensurate with the level of additional value

offered. Where a reward is given, its size will therefore not be fixed but will scale to the level of additional consumer value that companies' CVP proposals offer.<sup>32</sup>

- 10.45 We believe that the CVP can be a powerful tool for driving and demonstrating ambition in companies' business plans. By aligning the areas in which companies develop CVP proposals with specific priority areas for RIIO-ED2, the service offered to consumers in these areas of activity can be enhanced.
- 10.46 DNOs will submit draft business plans to Ofgem and to the Challenge Group on 1st July 2021. In our Consultation, we said that there may be value in using these draft plans in the establishment of the final set of baseline expectations in RIIO-ED2. We said that there may be merit in reviewing the CVP proposals contained in draft business plans and, where appropriate, incorporating proposals into an enhanced set of baseline expectations for the sector. DNOs would then be able to ensure that these enhanced standards are incorporated into their final business plans.
- 10.47 Having reviewed responses to the Consultation, we have decided that we will not carry out a formal review of the CVP proposals contained in DNOs' draft business plans. For the reasons set out in paragraph 5.30 of the RIIO-ED2 Methodology Decision and paragraphs 5.66 and 6.41 of Annex 1 to the Decision, we do not intend to revise the baseline expectations based on a review of the draft business plans.
- 10.48 In the Consultation we proposed that, where companies' CVP proposals subsequently lead us to enhance the baseline expectations, these proposals may be rewarded via Stage 2 of the BPI. Given that we will not be reviewing DNOs' draft business plans with a view to revising the baseline expectations, there will be no stipulation that a CVP proposal must lead us to enhancing the baseline expectations for all DNOs in order to be eligible for a reward.
- 10.49 We will give a greater focus to the CVP element of the BPI by indicating the areas we expect proposals to fall in. Although views set out in Consultation responses on this point were mixed, we note that, in respect of each of the areas that will be eligible for consideration under Stage 2,<sup>33</sup> a set of baseline expectations or

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<sup>32</sup> By this we mean, proposals that offer greater value to consumers would be eligible to receive greater rewards than proposals that offered a less value.

<sup>33</sup> As set out in paragraph 10.29

other requirements has been established, against which CVP proposal can be assessed. This is less likely to be the case in other areas.

10.50 In our Consultation, we proposed that the aggregate value of CVP proposals contained in a business plans should not exceed £50m and that there should be a per-proposal cap of £10m. Having considered responses to the Consultation, we have decided not to implement these caps for RIIO-ED2. Although we believe that the caps proposed in the Consultation document may be broadly appropriate in many cases, expressing a cap as a monetary value may in effect mean that the strength of the incentive properties of the CVP will vary between DNOs.<sup>34</sup> Further, this proposal could potentially have had a distortive effect on the BPI more generally, as the BPI features an overall cap that is expressed as a proportion of allowed totex.

10.51 We considered one DNO's suggestion<sup>35</sup> that Ofgem could assign a grade to each CVP proposal in the business plan, with a predetermined percentage of revenue rewarded to each proposal based on the assigned grade. However, in our view this would weaken the link between the value of a proposal to consumers and the size of the associated reward, meaning that customers could end up 'overpaying' for the delivery of a CVP proposal.<sup>36</sup>

### **Stages 3 & 4**

10.52 We consider it appropriate to treat lower-confidence and high-confidence baseline costs differently from each other under the BPI for the reasons set out below. In relation to high-confidence baseline costs, in the absence of compelling evidence to the contrary, we will set allowances at the level of the relevant independent benchmark. Therefore, if a company expects these costs to decrease in RIIO-ED2, it may choose not to reveal this in its business plan forecast, and instead reveal the lower cost in-period, enjoying any benefit accrued under the TIM. As the information would not have been revealed at the time of the price control, Ofgem would be unable to use it in other parts of the RIIO-ED2 price control, such as the setting of allowances for other companies.

10.53 Conversely, if forecasts in such high-confidence categories are higher than the independent benchmark, it is not likely that Ofgem would both (a) accept that

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<sup>34</sup> For example, because £10m would represent a larger proportion of a smaller DNO's income compared to that of a larger DNO.

<sup>35</sup> See paragraph 10.41

<sup>36</sup> ie the reward could be larger than the consumer value attached to the proposal.

allowances should be higher than the independent benchmark and (b) deem that those costs should be high-confidence baseline costs. Therefore, it would not be necessary to apply a penalty to forecasts in high-confidence areas that are in excess of the relevant independent benchmark.

10.54 It may be the case, for example in areas of significant change, that historical costs are not a good predictor of future costs. In circumstances where Ofgem believes it has a good benchmark on which to base an allowance but where a company includes a forecast above this level, likely outcomes would be:

- Ofgem would set the allowance at the level of the benchmark and would deem the costs to be high-confidence baseline costs or
- Ofgem would deem the costs to be lower-confidence baseline costs and would set the allowance at our view of efficient cost. For example, this could be the case where, having reviewed the business plan, Ofgem reaches the view that the company's proposed cost is reasonable.

10.55 In relation to lower-confidence baseline costs, due to the absence of an independent benchmark, we are, by definition, more reliant on companies' forecasts in setting allowances than is the case for high-confidence baseline costs. We think it is appropriate to encourage companies to ensure that their forecasts of lower-confidence baseline costs clearly represent value-for-money to consumers and are thoroughly justified. To achieve this, companies will be subject to a penalty in proportion to the amount we deem to be poorly justified and that will be removed from the business plan in the setting of allowances for Final Determination.<sup>37</sup>

10.56 This should not discourage companies from being ambitious, or from including innovative and new approaches to improve network services. We fully realise that it is possible for companies to generate value for consumers by including such approaches (for example, by increasing automation to reduce operating costs), and through our cost assessment process we will not disadvantage companies that propose to make such trade-offs, provided they are well-justified. Indeed, these aspects of the plan may be considered in our assessment of the overall CVP at Stage 2 and could warrant a reward.

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<sup>37</sup> In some instances, cost forecasts may be made up of proposed unit costs and proposed volumes of activity. Ofgem would expect to consider both the justification for the unit cost and the volumes of activity in determining whether a penalty should apply.

- 10.57 The provision of the Stage 4 reward will be dependent on Ofgem using the information provided by the company to set allowances. In order to be eligible for a Stage 4 reward, the cost information must be useful to Ofgem in setting allowances. If it is not useful, it would not generate any benefit and therefore should not be rewarded. For example, Ofgem would still need to believe that proposed expenditure below the relevant independent benchmark was credible in order to incorporate it into cost allowances.
- 10.58 Additionally, as stated above, the metric of confidence for determining the CDIR is calculated as the ratio of high-confidence baseline costs to allowed totex, where our independent baseline for high-confidence baseline costs is the numerator and the company's overall allowed totex is the denominator. Where we use a company's forecast in the cost assessment process and the forecast is lower than the independent benchmark, we will set allowances at the level of the company's forecast. This means that a company that forecasts below the benchmark level will receive a higher CDIR than if it had forecast at the benchmark level.
- 10.59 We will set the reward rate for high-confidence costs that beat an independent benchmark at the same level as the TIM incentive rate. As this will be an upfront reward, companies would receive a time value of money benefit for revealing cost savings at the time of setting the price control and these rewards would also be excluded from Return Adjustment Mechanisms (RAMs).<sup>38</sup> These additional benefits reflect the added value we may get from information revealed in setting more accurate price controls for other companies.
- 10.60 One additional incentive to reveal ambition upfront (in addition to time value of money and exclusion from RAMs) is that this would reduce the company bid for totex relative to the independent benchmark, and therefore is likely to result in a higher incentive rate (compared to a company that bids at the level of the independent baseline).
- 10.61 The penalty rate for poorly justified lower-confidence costs will be 10%. Whereas rewards under the BPI are calculated with reference to the company's TIM incentive rate, we do not think there is a good rationale for calculating penalties under the BPI at the same rate. To an extent, the harm these disallowed costs could lead to has been corrected by their exclusion from allowances and companies will be subject to a penalty through the incentive rate if they

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<sup>38</sup> Further detail on RAMs will appear in the SSMD finance annex, to be published in 2021.

overspend this allowance. We do however want to discourage poorly justified costs where we have little independent information available to set allowances. We therefore consider a lower rate of 10% will provide a sufficient penalty for this purpose.

- 10.62 Certain Minimum Requirements under Stage 1 of the BPI may require cost-related information to be included as part of companies' business plans. However, Stages 1 and 3 serve distinct purposes. In relation to this information, at Stage 1, we will assess whether plans contain everything that we need to enable us to carry out a robust assessment. Stage 3 is specifically concerned with identifying and applying a penalty to any proposed Lower-Confidence Baseline costs that are poorly justified (and, as such, discouraging companies from proposing costs with poor justification).
- 10.63 Where Ofgem makes a decision that a business plan has successfully met the Minimum Requirements at Stage 1, this does not imply that Ofgem accepts all aspects of the plan (or relevant underlying evidence). Companies whose plans meet the minimum requirements will have the relevant aspects of their plans assessed at Stages 2, 3 and 4 of the BPI process. Companies that fail Stage 1 will have their plan assessed for a potential penalty at stage 3 and will not benefit from any reward under Stages 2 or 4.

### **Capping net rewards/penalties**

- 10.64 We have decided to incorporate a net cap on rewards and penalties under the BPI. We believe that by having a cap on net rewards and penalties under the BPI set at a level of  $\pm 2\%$  of allowed totex is reasonable and would provide a sufficiently powerful incentive, while not outweighing incentives on the core DNO role of delivering efficient costs within the RIIO-ED2 period.
- 10.65 However, where a company fails to pass Stage 1 of the BPI assessment, meaning that its business plan has omitted what we consider to be essential information, we think it would be appropriate to ensure that no reward can be earned by the company under stages 2 or 4 of the BPI.

### **Business Plan Guidance**

10.66 The RIIO-ED2 Business Plan Guidance, which will be updated and published shortly, will set out the information that companies' business plans will need to contain and how we will assess those plans.