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for all gas and electricity customers

Strategy decision for the RIIO-ED1 electricity distribution price control

Uncertainty mechanisms

Supplementary annex to RIIO-ED1 overview paper

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Overview:

The next electricity distribution price control, RIIO-ED1, will be the first to reflect the new RIIO model. RIIO is designed to drive real benefits for consumers; providing network companies with strong incentives to step up and meet the challenges of delivering a low carbon, sustainable energy sector at a lower cost than would have been the case under our previous approach. RIIO puts sustainability alongside consumers at the heart of what network companies do. It also provides a transparent and predictable framework, with appropriate rewards for delivery.

In September 2012 we consulted on the key elements of the regulatory framework ("strategy") that the 14 electricity distribution companies (DNOs) will need to understand in order to develop their business plans. We are now setting out our decision on this strategy. This supplementary annex to the main decision document sets out our approach to uncertainty in RIIO-ED1. This document is aimed at those who want an in-depth understanding of our decisions. Stakeholders wanting a more accessible overview should refer to the main overview decision document

Associated documents

Strategy decision for RIIO-ED1 - Overview

<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1DecOverview.pdf>

Links to supplementary annexes

- Strategy decision for RIIO-ED1 - Outputs, incentives and innovation
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1DecOutputsIncentives.pdf>
- Strategy decision for RIIO-ED1 - Business plans and proportionate treatment
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1DecBusinessPlans.pdf>
- Strategy decision for RIIO-ED1 - Uncertainty mechanisms
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1DecUncertaintyMechanisms.pdf>
- Strategy decision for RIIO-ED1 - Financial issues
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1DecFinancialIssues.pdf>
- Strategy decision for RIIO-ED1 - Tools for cost assessment
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1DecCostAssessment.pdf>
- Strategy decision for RIIO-ED1 - Reliability and safety
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1DecReliabilitySafety.pdf>
- RIIO-ED1 Glossary of terms
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1SConGlossary.pdf>

Links to other associated documents

- Strategy consultation for RIIO-ED1 - Overview
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1SConOverview.pdf>
- Open letter consultation on the way forward for RIIO-ED1
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1LaunchOpenLetter.pdf>
- Handbook for implementing the RIIO model
<http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf>
- Electricity Distribution Price Control Review 5 (DPCR5) Final Proposals
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/DPCR5/Documents1/FP_1_Core%20document%20SS%20FINAL.pdf

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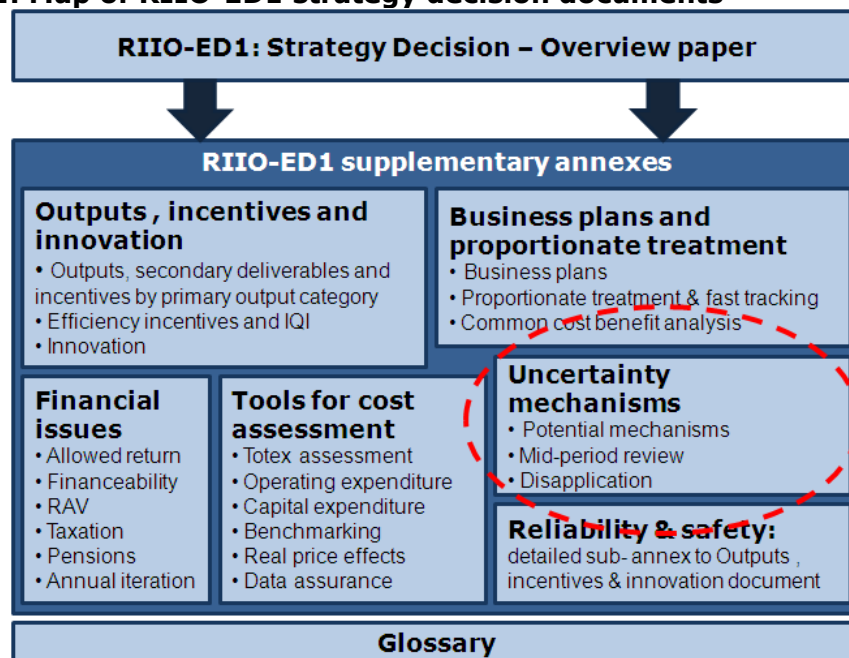
1. Introduction

Chapter Summary

This chapter sets out what is covered in this document and a summary table outlining the various uncertainty mechanisms that are set out in detail in the subsequent chapters.

- 1.1. The next electricity distribution price control, RIIO-ED1, will be the first time the new RIIO model is reflected in electricity distribution. This supplementary annex to the main strategy decision for the RIIO-ED1 electricity distribution price control document sets out our decisions on uncertainty mechanisms. This document is aimed at those who want an in-depth understanding of our decisions. Stakeholders wanting a more accessible overview should refer to the 'Strategy decision – Overview'. Figure 1.1 below provides a map of the documents published as part of this decision.

Figure 1.1: Map of RIIO-ED1 strategy decision documents



Links to these documents can be found in the 'Associated documents' section of this document

- 1.2. The remainder of this document is structured as follows:

- Chapter 2 sets out our principles guiding the use of uncertainty mechanisms and the information that stakeholders will need to provide to include additional or alternative uncertainty mechanisms beyond those discussed in this document

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- Chapter 3 sets out the volume driver and reopener uncertainty mechanisms for RIIO-ED1
- Chapter 4 sets out the indexation, pass through and trigger mechanisms for RIIO-ED1
- Chapter 5 sets out our approach to the mid-period review of output requirements.

1.3. Table 1.1 summarises the uncertainty mechanisms detailed in this document.

Table 1.1: RIIO-ED1 uncertainty mechanisms

Type	Area covered	Frequency
Mechanistic		
Indexation	RPI indexation of allowed revenues Cost of debt	Annual
Pass through ¹	Business rates Ofgem licence fees DCC fixed costs Transmission connection point charges	Annual
Volume driver	Smart meter roll out costs	Annual (above a defined threshold)
Assessed		
Reopener	Street works Enhanced physical site security High-value projects	Single window - 2019
	Load related expenditure	2017, 2020
	Innovation roll-out mechanism	2017, 2019
	Pension deficit repair mechanism	2016, 2019, 2022
Trigger	Tax	At any time

¹ DNOs should flag any additional pass through mechanisms they believe are appropriate, including any that are currently in operation in DPCR5 but are not shown in this table.

2. Approach to managing uncertainty

Chapter Summary

This chapter sets out our overall approach to managing uncertainty in RIIO-ED1. It sets out the principles guiding the use of uncertainty mechanisms and provides details on what DNOs need to provide in their business plans in support of additional or alternative mechanisms.

Overview

- 2.1. There are always uncertainties about the appropriate outputs companies should deliver and the expenditure requirements that will be needed over a price control period to ensure delivery. The RIIO framework includes a number of elements to help deal with these uncertainties. It also places the onus on network companies to set out how they intend to manage risk through the period.
- 2.2. The elements of the uncertainty framework which we are including in RIIO-ED1 are:
 - a range of uncertainty mechanisms
 - a tightly-defined mid-period review of output requirements
 - provision for disapplication of the price control
 - risk sharing through the efficiency incentive rate.
- 2.3. These elements will affect the cash flow risks of the business and therefore our views on the appropriate level of notional gearing and the allowed return.
- 2.4. This document sets out our proposed approach for the first three elements. The efficiency incentive rate (which determines the extent to which any variations between actual and forecast costs are shared between investors and consumers) is discussed in Chapter 9 of the 'Supplementary annex – Outputs, incentives and innovation'.
- 2.5. All DNOs are free to propose additional/alternative uncertainty mechanisms to those set out in this document, subject to them adhering to our principles.

RIIO principles guiding the use of uncertainty mechanisms

- 2.6. Uncertainty mechanisms allow changes to a network company's allowed revenues to be made in light of what happens during the price control period. We use the term "uncertainty mechanisms" to cover a range of mechanisms and provisions for adjusting the maximum revenue that a network company is

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allowed to collect. These include: volume drivers, revenue triggers, specific reopeners, and pass-through costs.

- 2.7. Uncertainty mechanisms do not cover any arrangements that are included in a price control to encourage a network company to control its costs (efficiency incentives) or to deliver appropriate levels and timeliness of outputs (output incentives).
- 2.8. The overarching principle for uncertainty mechanisms from the RIIO handbook is as follows: *"We expect network companies to manage the uncertainty they face. The regulatory regime should not protect network companies against all forms of uncertainty. The use of uncertainty mechanisms should be limited to instances in which they will deliver value for money for existing and future consumers while also protecting the ability of networks to finance efficient delivery".*²
- 2.9. The RIIO framework calls for:
- a clear justification of the need for each uncertainty mechanism
 - the design of each mechanism to mitigate the potential downsides
 - a coherent approach across uncertainty mechanisms.
- 2.10. The use of uncertainty mechanisms may benefit consumers in a number of different ways, but they may also bring downsides. The following table highlights potential justifications and drawbacks of uncertainty mechanisms, including those identified in the RIIO handbook.

Table 2.1: Potential justifications and drawbacks of uncertainty mechanisms

Potential justifications	Potential drawbacks
To lower the cost of capital	Can undermine incentives for efficiency
Reduce financeability concerns	Increase complexity of regime
Reduce consumers' exposure to forecasting uncertainty at price control review	May lead to volatility or unpredictability in network charges
Strike fair balance of charge between current and future consumers	Risk of unintended consequences
Avoid resource costs of forecasting	Resource costs to develop and implement mechanism

- 2.11. In line with the RIIO principles and our decision on charging volatility, we have decided that the price control will contain measures to manage charging

² See page 96 of the RIIO handbook.

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volatility and predictability to avoid unnecessary volatility in charges that adversely affects consumers.

Uncertainty mechanisms for RIIO-ED1

- 2.12. DNOs will be able, as part of their business plans, to set out which uncertainty mechanisms they are seeking to use to help them manage risk, and what benefits these would bring for consumers (eg enabling a lower cost of capital). Ultimately we will decide whether to accept the companies' proposals.
- 2.13. Chapters 3 and 4 set out the uncertainty mechanisms we believe are in the interests of consumers for RIIO-ED1. For ease of reference we have split the uncertainty mechanisms across these two chapters, primarily based on those with similar characteristics in terms of how they operate.
- 2.14. Compared with our 'September strategy consultation' we have reduced the number of uncertainty mechanisms. The primary reason for this is that, following further discussion and work with industry, we have grouped a number of proposed mechanisms under one overall mechanism, this is the load related reopener. Chapter 3 sets out how this mechanism works and the constituent elements of it.

The scope for additional uncertainty mechanisms

- 2.15. In order to justify the potential inclusion of another mechanism or the revision of a mechanism set out in this document, we expect the DNOs to include the information set out in Table 2.2 below in their business plans.

Table 2.2: Information required for additional uncertainty mechanisms

Issue	Information required
What is the issue/risk that the proposed mechanism addresses?	This needs to set out the uncertainty identified and the grounds why an uncertainty mechanism might be appropriate.
What is the proposed mechanism?	A description of what the mechanism is and how it works. This needs to be detailed enough to allow potential implementation via a licence condition. If there is a materiality threshold, this would need to be set out either as a percentage of base revenue, which is how we have set materiality thresholds.
What are the justifications for the mechanism?	This needs to set out the benefits of the mechanism which might include those in Table 2.1 above. It is also necessary to set the materiality of these issues where possible, eg what is the likely expenditure exposure of the issue/risk?
What are the drawbacks from the proposed mechanism?	This needs to set out the drawbacks of the mechanism which might include those in Table 2.1 above. Again it is necessary to set out the materiality of these drawbacks

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Issue	Information required
	where possible, eg the impact on charging volatility.
Can the drawbacks be reduced?	This would need to explain why the drawbacks cannot be mitigated through alternative mechanism designs, eg by using a driver instead of logging-up or cost pass-through.
On balance, does the mechanism deliver value for money while protecting the ability to finance efficient delivery?	Explanation of why the benefits of the mechanism outweigh the drawbacks.

Summary of consultation responses

- 2.16. The majority of respondents to our September strategy consultation felt that the mechanisms and criteria proposed were generally appropriate. Some respondents made general suggestions as to how the mechanisms and approach could be refined. These points have been addressed in our discussion of our decisions and reasons for adopting individual mechanisms later in this document.
- 2.17. One respondent commented that they felt it was appropriate for Ofgem to evaluate the justifications and drawbacks of each uncertainty mechanism. The respondent felt that this should comprise two stages. Firstly, an assessment of whether the degree of control a DNO has over the uncertainty being considered necessitates the use of an uncertainty mechanism. Secondly, if a mechanism was deemed to be necessary, the magnitude/materiality of the risk needed to be gauged in order to determine the appropriate type of mechanism. This is in line with the way in which we intend to determine the application of any uncertainty mechanism for RIIO-ED1.
- 2.18. Another respondent put forward their view that where any of the uncertainty mechanisms discussed in this document meet the required materiality thresholds at any time during the RIIO-ED1 period, then they should be eligible for logging and reviewing for RIIO-ED2. The respondent pointed out that this should not however apply to any activity which had already been allowed during the RIIO-ED1 reopener.

Reasons for our decision

- 2.19. We have taken into consideration the responses we have received in reaching our decisions on the uncertainty mechanisms outlined in this document. Against each mechanism we set out how it is intended to operate for RIIO-ED1 and outline any changes we have made since the September strategy consultation.

3. Volume driver, reopener and uncertainty mechanisms

Chapter Summary

This chapter sets out the volume driver and reopener uncertainty mechanisms that we believe are appropriate for RIIO-ED1. At the end of the chapter we also set out mechanisms we consulted on in September but have decided not to adopt.

Smart meter volume driver

- 3.1. Smart metering data can play a critical role in the development of smart grids. Given their importance we are putting incentives and mechanisms in place for DNOs to deal efficiently and effectively with the roll-out of smart meters, fixed data costs associated with the Data Communications Company and variable data costs.
- 3.2. This section covers the arrangements we are putting in place for the roll-out of smart meters. Our mechanism aims to provide funding to DNOs for all credible roll-out scenarios, whilst providing a strong incentive on DNOs to keep volumes as low as possible.
- 3.3. There are two types of costs related to the smart metering programme that may be incurred by the DNOs – costs related to DNOs being called out to consumer premises during the roll-out, and costs related to the DNOs' use of smart metering data. The former is discussed here, under the smart meter volume driver. The latter is discussed in the Data Communications Company fixed cost pass through mechanism in Chapter 4.
- 3.4. Suppliers and network companies are developing Service Level Agreements (SLAs).³ These will cover DNOs delivering remedial work to properties within set timeframes, in exchange for granular planning information from suppliers. It is important that any increased costs are borne by the parties that are able to control them to ensure the most efficient outcome for customers. Therefore any additional costs caused by issues that do not relate to DNOs (eg call outs that incur higher unit costs such as work conducted out of normal hours or aborted call outs) should be funded by the suppliers under the SLAs. These costs will not be funded through the volume driver set out below.

³ <http://www.dcusa.co.uk/Public/CP.aspx?id=174>

Our decision

Mechanism	Smart meter volume driver
Includes	Additional costs borne by DNOs for call-outs as part of the smart meter roll-out
Threshold	N/A
Window(s)	Annual
Treatment of costs below the threshold	N/A

- 3.5. Our decision is to have a volume driver for DNO related call outs that are attributable to the roll out of smart meters, which will be settled on an annual basis. The DNOs should put forward appropriate unit costs for the volume driver as part of their July business plans. These will then be benchmarked across the DNOs. Only those call outs for which the DNO is responsible for dealing with will count.
- 3.6. Call-outs for smart meters may involve a number of different activities by the DNOs, which we will capture in the business plan data templates. If there are material differences in unit costs between the different activities we will use activity specific unit costs, otherwise our benchmarked unit cost will be a composite of the different activity unit costs.
- 3.7. As it is unclear what proportion of smart meter installations will require a DNO to attend, we have decided to provide an ex-ante allowance based on a two per cent call out rate. This is set at the lower end of current DNO forecasts of intervention rates, but given the limited number of smart meters installed to date, we believe it is a prudent level. The volume driver will apply if actual volumes of call-outs are higher or lower than this. There will not be a dead-band for this mechanism.
- 3.8. Given the uncertainty over the actual intervention rates that will be experienced, we have decided to include a tapering mechanism within the volume driver. Where the intervention rate is up to ten per cent of all smart meters installed in the DNO's area in a given year, then the benchmarked unit cost will apply. Where the intervention rate is between ten and fifteen per cent, then the benchmarked unit cost for this increment will be multiplied by 0.75. For intervention rates between fifteen and twenty per cent, then the benchmarked unit cost for this increment will be multiplied by 0.5. For intervention rates above twenty per cent the benchmarked unit cost for this increment will be multiplied by 0.25.

Summary of consultation proposals

- 3.9. We proposed that a volume driver for additional call outs associated with the smart meter roll-out should be introduced for RIIO-ED1. This volume driver would flex DNO allowances up or down versus the volumes assumed in the setting of their baseline allowance. We proposed that the unit cost should be derived from benchmarked data provided in the business plans based on

current call out rates. We proposed that the volume driver would only apply to DNO related issues.

Summary of consultation responses

- 3.10. Several respondents referred to the current level of uncertainty surrounding the volume of work that will be required from DNOs during the smart meter roll-out, for example: would the rate of DNO call outs increase, how much would need to be spent on the administration over the period to fully realise the benefits of smart meters. These respondents considered these costs to be very difficult to forecast and as a result several suggested that an additional uncertainty mechanism would be required in addition to the volume driver.
- 3.11. Respondents also felt that the scope of any smart meter uncertainty mechanism reopener should be expanded to include all costs that DNOs may incur following the rollout, including: on site costs; cut-out inspections; the cost of purchasing data from Data Communications Company (DCC); data management and storage costs; costs of extra activities driven by new information.

Reasons for our decision

- 3.12. The industry has had a number of years to prepare for the roll out of smart meters. Whilst there are legitimate questions over the volume of call outs that will be experienced by DNOs, the typical activities involved and associated costs are more certain. As such, we believe it is still appropriate to employ a volume driver for this uncertainty, rather than opting for a reopener.
- 3.13. We are providing some ex-ante funding as the evidence to date indicates that DNOs will be required to attend a proportion of smart meter installations during the roll out. Providing clarity on what proportion of funding will be ex-ante and how the volume driver will flex this allowance should assist with common population of the Business Plan data templates and enable direct comparisons in the IQI matrix.
- 3.14. We are including a tapering mechanism as we believe DNOs have a duty to ensure that they are not picking up costs for call outs which are not within their remit. There are also likely to be economies of scale involved as the number of call-outs increases. This is where the SLAs come in and it is imperative that DNOs are clear with other parties in advance about those items which they will re-charge for. Additionally, we believe that a DNO that has kept on top of its own stock of service positions will not experience significant call out volumes.

Street works reopener

Introduction

3.15. This mechanism relates to additional costs associated with permitting schemes, and other street works legislation not included as part of the ex ante allowance.

Our decision

Mechanism	Street works reopener
Includes	Additional costs associated with permitting schemes, and other street works legislation not included as part of the ex ante allowance
Threshold	One per cent of average annual RIIO-ED1 base revenue
Window(s)	1 to 31 May 2019
Treatment of costs below the threshold	Subject to efficiency incentive rate No logged up costs will be allowed unless the reopener threshold is triggered

3.16. Our decision is to have a reopener mechanism that allows for changes in revenue arising from legislation related to street works. The reopener will cover both the costs and volume of street works activity arising from working in areas that are operating permit schemes established through the Traffic Management Act or the Transport (Scotland) Act 2005 and other areas of street works legislation, including the New Roads and Street Works Act. Table 3.1 below sets out the protection provided by this reopener.

Table 3.1: Protection provided by the TMA permitting reopener

Items protected against	Items not protected against
The timing of the introduction of costs related to street works legislation	Volumes of activity (except for load-related expenditure and new connections), ie the number of works
The level of fees set by the relevant authorities	The proportion of notices or permits that are subject to penalties
Efficient one-off set up costs associated with schemes (over and above those that are funded at the time of the price control or previously funded)	
Additional costs arising from the introduction of permit conditions (eg the London Code of Practice)	
Efficient additional administration costs associated with permitting	

3.17. The mechanism will work in the following way:

- At the price control we will only set an ex ante allowance for costs where the DNO can provide 12 months of cost data relating to the street works legislation. This is to enable us to benchmark these costs against those of other operators including the gas distribution companies.
- We will have a single reopener window in 2019 at which the DNOs can apply to cover the additional costs (over the full control period) associated with permitting schemes and other street works legislation not included as part of the ex ante allowance. Again, we would require at least 12 months of cost data to enable us to benchmark the costs. The reopener will only be triggered if the additional funding required exceeds the materiality threshold.

3.18. All streetworks costs not included in the ex ante allowance or a reopener will be borne by the DNO (subject to the efficiency incentive). This means that they will not be logged up or subject to an ex post review at RIIO-ED2, unless the criteria for the reopener are triggered. The assessment of these costs would then follow the same approach as the reopener.

3.19. For RIIO-ED1 the reopener window will be 1 to 31 May 2019, with a materiality threshold of one per cent (following the application of the efficiency incentive rate)⁴ of average RIIO-ED1 base revenue.

3.20. At the reopener our approach to assessing the additional costs arising from some activities, eg permit fees, may be mechanistic. Our ex ante baseline allowance for each DNO is likely to be based on forecasts of the number of works to be undertaken. When revising allowances we will consider both the proportion of notices that have been replaced by permits, the actual average cost of permits and the number of works undertaken. In extrapolating forward our assumptions for the remainder of the price control period we will take into consideration our original volume and penalty rate assumptions to allow revised allowances to be calculated.

3.21. Our assessment of the efficiency of any one-off set up costs, additional administration costs and the impact of any permit conditions will be more comparative in nature. We intend to benchmark these costs against those submitted by other network companies at the time of the reopener, those previously assessed in electricity distribution and those from other industries (eg gas distribution) to ensure that the strong efficiency incentives are preserved on this expenditure.

⁴ By this we mean that for example, if the efficiency incentive rate is 50 per cent then in effect the materiality threshold is two per cent of base revenues.

Summary of consultation proposals

- 3.22. We proposed to continue to provide a reopener mechanism, similar to that in place for DPCR5, to allow for changes in revenue arising from legislation related to street works. We proposed that the reopener would cover both costs incurred in working in areas that are operating permit schemes established through the Traffic Management Act or the Transport (Scotland) Act 2005 and other areas of street works legislation, including the New Roads and Street Works Act.
- 3.23. We proposed to mitigate the potential downsides of a reopener by restricting changes in revenues to a single reopener window to reduce any charging volatility, and by imposing a materiality threshold of one per cent of base revenues. We also proposed to not provide protection against the volume of street works activity.
- 3.24. We proposed to apply a mechanistic assessment for certain costs in the reopener, and a comparative assessment for others.

Summary of consultation responses

- 3.25. Respondents were generally supportive of the continuation of the street works reopener. However, some proposed changes to its scope, its materiality, and the regularity of the reopener window.
- 3.26. Several respondents felt that the definition of street works should be expanded and the cost of the following activities were suggested to be appropriate for inclusion in this definition: all reinstatement activities (including core sampling costs and fines); street works permitting; lane rentals (provided cost estimates are well justified).
- 3.27. In relation to materiality, one respondent felt that this should be maintained at the DPCR5 level, in order to ensure DNO risk does not increase.
- 3.28. Respondents suggested that two or three reopener windows would be more appropriate. They justified this by the uncertainty surrounding costs in this area and their belief that additional windows could help to reduce price volatility and provide an incentive for efficiency. One respondent, although supportive of the proposal to have only one reopener window, felt that the timing of this could present a difficulty if a significant change in street works charges is imposed by local authorities early in the RIIO-ED1 period.

Reasons for our decision

- 3.29. We have modified our approach from the September strategy consultation in light of recent experience during DPCR5. Given experience of the reopener in DPCR5 we believe it is appropriate to include in any reopener review the

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volume of street works activity associated with load-related and new connections expenditure as well as the costs for all activities.

- 3.30. We have not changed the materiality threshold from that proposed as we believe it is appropriate to keep it consistent with that used both in DPCR5 and the other uncertainty mechanisms for RIIO-ED1. We are not widening the scope of the eligible costs as we believe that DNOs are best placed to manage these risks. We remain of the view that there should be only one reopener window, as we believe that DNOs should either be able to provide sufficient evidence as part of their ex ante funding requirements, or if the costs materialise in the period they will have the protection of the reopener.

Enhanced physical site security reopener

Introduction

- 3.31. This mechanism relates to those DNO sites which have been designated by the Centre for the Protection of National Infrastructure as requiring enhanced security.


Our decision

Mechanism	Enhanced physical site security reopener
Includes	Additional costs incurred or forecast to be incurred in order to enhance security of specified sites
Threshold	One per cent of average annual RIIO-ED1 base revenue
Window(s)	1 to 31 May 2019
Treatment of costs below the threshold	Logging up of costs for additional sites if the reopener threshold is not met.

- 3.32. Our decision is to have a reopener mechanism for additional costs, beyond those included in any ex-ante allowances, incurred by DNOs in complying with the requirement, as notified to the DNO by the relevant authorities, to enhance the security of particular sites on their networks.

- 3.33. The mechanism will work in the following way:

- At the price control we will only set an ex ante allowance for sites where the DNO can provide sufficient detail on the expected works and associated costs. This should include the provision of an initial audit recommendation to demonstrate that the proposed works demonstrate value for money.
- We will have a single reopener window in 2019 at which the DNOs can apply to cover the additional costs (over the full control period) associated



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with sites not included as part of the ex ante allowance. The reopener will only be triggered if the additional funding required exceeds the materiality threshold.

- If the materiality threshold is not met we will consider logged up costs associated with sites that have not been included as part of the ex ante allowance at RIIO-ED2.
- 3.34. All enhanced physical site security costs not included in the ex ante allowance or a reopener will be borne by the DNO (subject to the efficiency incentive) during RIIO-ED1. We will consider the logged up costs for additional sites as part of RIIO-ED2.
- 3.35. During the reopener window, the DNOs will need to provide evidence to demonstrate that every effort has been made to deliver projects at an efficient cost. As part of this process, we are likely to require the DNOs to submit to us details of the auditing process to which the projects have been subjected. The audit would be expected to consist of two stages:
1. a technical audit to provide proof that the proposed works meet the security requirements
 2. an audit of completed works to confirm that work has been completed to the required standard and that costs incurred were efficient.
- 3.36. In addition to this evidence, where we feel that it is appropriate to do so, we anticipate carrying out some level of benchmarking across the DNOs to assess the efficiency of costs.
- 3.37. For RIIO-ED1 the reopener window will be 1 to 31 May 2019, with a materiality threshold of one per cent (following the application of the efficiency incentive rate)⁵ of average RIIO-ED1 base revenue.

Summary of consultation proposals

- 3.38. We proposed that for those projects where the appropriate level of detail was not available at the time when RIIO-ED1 revenue allowances are set, DNOs would be allowed to recover costs during the price control through the application of a reopener. Costs would be assessed during a reopener window, provided that the materiality threshold for these projects is breached. Following such an assessment, any appropriate adjustments to revenue allowances would be directed by Ofgem for recovery within the RIIO-ED1 period. If the materiality threshold was not met, we proposed to consider the logged up costs at the start of the next price control.

⁵ By this we mean that for example, if the efficiency incentive rate is 50 per cent then in effect the materiality threshold is two per cent of base revenues.

Summary of consultation responses

- 3.39. Most respondents agreed with our proposed design of the enhanced physical site security reopener. One respondent noted that since they had experienced investment requirements in site security and replacement of stolen equipment on an exponential basis, it would be difficult to accurately forecast expenditure in this area.
- 3.40. One respondent stated however that they were not aware of a likely significant new requirement from government to change physical site security for key DNO assets. As such, they felt that ex ante allowances could be set for enhancing site security and that a reopener was not required.

Reasons for our decision

- 3.41. Given the consultation responses our decision is to retain the mechanism as proposed. We note that there are other funding mechanisms for the protection of sites due to issues such as stolen equipment, namely under the Legal and Safety section of the 'Tools for cost assessment' document. The uncertainty mechanism described here is not intended to cover such routine issues.

Load related expenditure reopener

Our decision

Mechanism	Load related expenditure reopener
Includes	Additional costs incurred or forecast to be incurred in order to accommodate changes in levels and pattern of network loading
Threshold	<ol style="list-style-type: none"> Over/ under-spend of >20 per cent of relevant ex ante allowances. Level of expenditure above/ below the 20 per cent threshold must be at least one per cent of average annual RIIO-ED1 base revenue
Window(s)	1 to 31 May 2017 and 1 to 31 May 2020 Ofgem can also trigger as part of RIIO-ED2 review
Treatment of costs below the threshold	Subject to efficiency incentive rate No logging up

- 3.42. There is significant uncertainty over the likely investment required within RIIO-ED1 to accommodate new and changing patterns of electricity use by DNO customers (load related expenditure). To a certain degree, significant uncertainty over load related expenditure has been faced in previous

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electricity distribution price controls. However, the likely increase in low-carbon and clean energy devices connected to the secondary network in RIIO-ED1, and their largely unknown impact on the network, together with the impact of increased volumes of distributed generation probably increases the level of uncertainty in comparison to the current price control period, DPCR5.


3.43. For this reason, we think it appropriate to continue the principle of the DPCR5 load-related reopener mechanism for managing the uncertainty associated with load related expenditure, but to expand the scope of expenditure categories within it.

3.44. The table below sets out the areas of expenditure to be covered by the load-related reopener in RIIO-ED1, and whether each area was included in the equivalent DPCR5 reopener.

Table 3.2 – Expenditure included in load-related expenditure reopener (RIIO-ED1 vs.DPCR5)

Expenditure category	Included in RIIO-ED1 reopener mechanism	Included in DPCR5 reopener mechanism
Primary Network General Reinforcement (n-2) – EHV+	Yes	Yes
Primary Network General Reinforcement (n-1) – EHV+	Yes	Yes
Secondary Network General Reinforcement – HV-LV (includes accommodation of low-carbon device uptake and DG connected to customer profile classes 1-4)	Yes	Yes
Primary network new and modified connections (includes DG connections)	Yes	Yes
Secondary network new and modified connections (includes DG that is not connected to customer profile classes 1-4)	Yes	No
Fault level reinforcement	Yes	No

3.45. All of these elements will be funded in the first instance by individual ex ante allowances. Only if, in aggregate, they exceed the materiality threshold, will the additional costs be considered. This avoids potential boundary issues between different funding mechanisms for the specific areas of cost. This is a refinement to the proposals set out in the strategy consultation, which included the principle of a volume driver mechanism for the accommodation of



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low-carbon devices⁶ and new connections on the secondary network, and considered the further use of volume drivers for primary network connections (including DG).

- 3.46. The reopener will allow the DNOs to recover any additional efficient expenditure above the relevant materiality threshold after the application of the efficiency incentive rate. No adjustment will be made for the efficient expenditure up to the threshold, beyond the usual operation of the efficiency incentive which means that in practice the DNOs are only really exposed to a percentage of the overspend incurred before the materiality threshold is reached.
- 3.47. DNOs will be able to trigger a reopener (at the two reopener windows) if they can demonstrate that efficient expenditure in the relevant categories over the whole of the RIIO-ED1 period (ie actuals plus forecasts for the remainder of the period) is or will be at more than 20 per cent above the combined ex-ante allowance. The additional expenditure above the 20 per cent threshold must also be greater than one per cent of average RIIO-ED1 base revenue after the application of the efficiency incentive rate.
- 3.48. The reopener will consider the overall impact of material changes in the following:
- levels of demand (actual and forecast)
 - the clustering of demand (actual and forecast)
 - the cost of delivering reinforcement or alternative solutions (actual and forecast).
- 3.49. DNO applications will need to indicate, as a minimum, the impact of these changes with reference to:
- their ability to deliver against the load index secondary deliverable (as set out in chapter 5 of the 'Supplementary annex - Reliability and safety')
 - any increased volumes of new or modified connections relevant to the level forecast in their business plan
 - any increase in the volume of general reinforcement or fault level interventions required on the network.
- 3.50. As part of the assessment of load-related reopener applications, we will also consider any offsetting demand-side response (DSR) activities that have avoided general reinforcement expenditure. This is to ensure that DNOs would not be discouraged from undertaking these activities. Changes in Real Price Effects (RPEs) would not be considered a justification for expenditure being

⁶ Although we raised concerns with the drivers proposed prior to the consultation.

greater than or less than the baseline allowance. It is the DNOs' responsibility to manage the risk of RPEs exceeding the baselines assumptions.

- 3.51. The reopener would be symmetrical and could also be triggered by Ofgem as part of the RIIO-ED2 review if the 20 per cent threshold has been met in a downwards direction due to a material reduction in demand. The same one per cent of average annual RIIO-ED1 base revenue materiality threshold will apply if the reopener mechanism were activated at this time.
- 3.52. High value projects (HVP) will not be considered within the load related expenditure reopener but will be subject to the separate HVP reopener, as set out further in this chapter.

Summary of consultation proposals

- 3.53. In the September strategy consultation we proposed a load-related reopener to cover expenditure across all load-related expenditure in combination with volume drivers for new and upgraded connections and the accommodation of low-carbon devices onto the secondary network.
- 3.54. We proposed that the reopener should be symmetrical, with Ofgem able to trigger a reopener as part of the RIIO-ED2 process.
- 3.55. We proposed to retain the DPCR5 thresholds at 20 per cent above or below Ofgem's baseline and that expenditure above or below this threshold would need to amount to at least one per cent of base revenue after being multiplied by the DNO's efficiency incentive rate.

Summary of consultation responses

- 3.56. Five of the six respondents supported extending the scope of the reopener to include each of the areas that make up load-related expenditure. The sixth respondent felt that the reopener trigger was not appropriate and that relevant volume drivers could be adjusted where actual costs differed materially from the unit cost from which the ex ante allowance was set.
- 3.57. In terms of how the reopener mechanism operates, one respondent proposed that the assessment process should allow the potential for high returns for relatively risky investments that deliver cost savings in the accommodation of low-carbon devices onto the network.

Reasons for our decision

- 3.58. In comparison to DPCR5 we have decided to widen the scope of expenditure that is eligible for the reopener. This is to ensure that we account for the uncertainty of exactly how and at which voltages the likely rise in volume of

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low-carbon devices will have an impact. Depending upon a DNO's specific network characteristics, the impact of a particular volume and clustering of low-carbon devices, such as heat pumps or photovoltaic cells, is likely to differ across DNOs and could impact on fault-level reinforcement. The holistic approach outlined above, will ensure that the full financial impacts are considered where the reopener is triggered.

- 3.59. We have retained the materiality threshold for over and under spend against the load related allowance at 20 per cent. Given the indicative forecasts we have received from DNOs to date, we believe that this threshold represents a reasonable level of risk for DNOs to carry. Setting the threshold too low may dilute the incentives on DNOs to manage their costs effectively and result in greater volatility of charges.
- 3.60. Our proposals also gives more security to customers in terms of ensuring that, across a wider spectrum of costs, where DNOs are not required to invest at the level anticipated within their business plan, Ofgem are able to return money to customers through adjusted baselines for RIIO-ED2.
- 3.61. Finally, our movement towards aligning each of the load-related expenditure building blocks to ex ante allowances will ensure that both DNOs and customers are neutral to trade offs in expenditure categories between the building blocks that make up the load-related expenditure pot. For example, if a greater volume of low-carbon devices are delivered through connection projects than originally forecast but that the total volume forecast is correct, overspend on connections will be offset by an equivalent under spend on reinforcement.
- 3.62. If the connections projects were funded through a volume driver, a DNO might under-spend against their reinforcement allowance and receive additional funding through the connections volume driver - when the connection projects have delivered the low-carbon devices that were forecast to be delivered through reinforcement.

High value projects (HVP) reopener

Our decision

Mechanism	High value projects reopener
Includes	Individual schemes of £25m or more not included as part of ex ante allowance
Threshold	Net total forecast expenditure of both ex ante schemes and new schemes less ex ante funding is greater than one per cent of average annual RIIO-ED1 base revenue
Window(s)	1 to 31 May 2019
Treatment of costs below the threshold	Subject to efficiency incentive rate No logging up



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- 3.63. We will include a reopener mechanism for high value projects in RIIO-ED1. For major schemes to fall under this mechanism they will need to involve forecast expenditure of £25m or more.
- 3.64. This reopener will cover both schemes that were not included in the original price control baselines due to them failing to have one or more of the following: clear outputs, forecast costs or a need case and schemes which were not known about by the DNO at the time of setting the price control allowances.
- 3.65. The HVP reopener will review schemes on a project by project basis. DNOs seeking to trigger the reopener during the window will need to demonstrate that they have/will meet the associated outputs of any HVP schemes included in any baseline allowance given at the start of the price control. DNOs will also need to demonstrate that their net efficient expenditure, less any ex ante funding, over the entire RIIO-ED1 period on all of their high value projects exceeds the one per cent of average RIIO-ED1 base revenue threshold.

Summary of consultation proposals

- 3.66. We proposed to have a reopener mechanism for major schemes above £50m in value and enable DNOs to recover any additional efficient expenditure above a 20 per cent materiality threshold. We proposed a single reopener window in 2019.
- 3.67. The reopener was proposed to cover both schemes that were not included in the original price control baselines due to insufficient justification and schemes which were not known about by the DNO at the time of the price control review.

Summary of consultation responses

- 3.68. All of the respondents in this area agreed a high value projects reopener was necessary. Several respondents did however feel that the project threshold value was not appropriate. One respondent felt that the proposed threshold of £50m did not reflect the differing requirements for DNOs in drawing on this area of expenditure and did not feel that the determination of the threshold value had been fully explained. This respondent felt that the existing DPCR5 mechanism was appropriate and should be continued into RIIO-ED1, while one other respondent also felt that the threshold value was too high. Several other respondents felt that either the proposed threshold of £50m was appropriate or that the DPCR5 threshold value should be raised.
- 3.69. With regards to the proposal for the reopener window, one respondent felt that by not introducing this until 2019, DNOs would be required to carry the risks of HVP for the four years of the price control up to this point, and for the reopener deliberation period. It was felt that this could effectively undermine

the risk reducing intent of the reopener. This respondent suggested that three reopener windows at the end of years 2, 4 and 6 would be appropriate.

Reasons for our decision

- 3.70. In light of the consultation responses we have reviewed the individual scheme qualifying threshold. We are still increasing the qualifying threshold, from £15m as set in DPCR5, but have taken into account the views that the proposed £50m level was too high. Setting the scheme threshold too high would result in a redundant mechanism, therefore we have listened to respondents and recalibrated the individual scheme threshold to a value of £25m.
- 3.71. Whilst noting the desire from some respondents to increase the number of reopener windows, we believe that as part of their enhanced stakeholder engagement for RIIO-ED1 DNOs should be aware of large schemes likely to occur in the early part of the period. We believe that having a single reopener window in 2019 provides an appropriate level of protection for DNOs.


Innovation roll-out mechanism reopener

Our decision

Mechanism	Innovation roll-out mechanism
Includes	Costs associated with the roll-out of proven low carbon or environmental innovations
Threshold	One per cent of average annual RIIO-ED1 base revenue
Window(s)	1 to 31 May 2017 and 1 to 31 May 2019
Treatment of costs below the threshold	Subject to efficiency incentive rate

3.72. As part of the Innovation Stimulus package, we are introducing the Innovation Roll-out Mechanism (IRM), a reopener designed to make funding available for the roll-out of proven low carbon or environmental innovations within the price control period. The criteria for innovative solutions eligible for funding under the IRM will be included in a specific IRM licence condition. These criteria will be similar to those set in RIIO-T1 and GD1. There will be two reopener windows for the IRM during RIIO-ED1.

3.73. The IRM is different to the other reopeners described in this chapter in that DNOs apply for funding before spending any money. DNOs will submit justifications for the individual innovations they plan to roll-out and if an individual innovation's costs are greater than the threshold, they will be considered for funding so long as the DNO cannot receive any commercial benefits from the roll-out for the remainder of the price control and it will



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provide long-term value for money for consumers. Below the threshold DNOs are expected to fund the roll out themselves and if the rollout can facilitate commercial or financial returns within the remaining price control period, DNOs are also expected to fund the rollout themselves.

- 3.74. Licence conditions and governance documents that set out the regulation, process and procedures for the different components of the innovation stimulus have been developed for RIIO-T1 and GD1. They have been developed with the intention of replicating similar conditions and governance for DNOs from 2015.

Summary of consultation proposals

- 3.75. We set out our proposals for an IRM based on the RIIO-T1 and GD1 mechanism in our September strategy consultation. We proposed to include two reopener windows and outlined that the additional funding requirement would have to be material.

Summary of consultation responses

- 3.76. The majority of respondents were supportive of the proposed innovation roll out mechanism. Some commented that it would provide a welcome opportunity for DNOs to apply for additional funding for innovative projects.
- 3.77. Some modifications to the mechanism were put forward. One respondent felt that the materiality threshold as proposed was not clear enough to implement, while another thought that its introduction would be counterproductive. This respondent felt that the threshold would discourage DNOs from developing small projects that could have intangible benefits to customers. Their suggestion was that the mechanism could alternatively be adjusted for 100 per cent of the additional costs incurred rather than just costs exceeding the materiality threshold.
- 3.78. One respondent also suggested that DNOs should be asked to demonstrate how the innovation achieves any relevant outputs and that these should be considered when assessing the need for any relevant adjustments.

Reasons for our decision

- 3.79. The IRM is one component of the Innovation Stimulus and the majority of stakeholders have welcomed the combined package of measures including the IRM. We consider the efficiency incentive provides a strong incentive within the price control framework for DNOs to roll out proven innovations into their business where they will deliver financial benefits within the period and help the DNOs meet their outputs more efficiently. However, where proven innovations have a longer pay back time and their benefits cannot be realised until RIIO-ED2 and where the benefits are more strongly linked to low carbon

and environmental benefits which are difficult to commercialise, the IRM will enable DNO to request additional funding. Therefore, we will introduce the IRM alongside the other Innovation Stimulus measures for DNOs.

- 3.80. We are retaining a materiality threshold as the purpose of this mechanism is to provide funding for the deployment of innovations that would otherwise not be undertaken. DNOs that have small scale schemes are able to recover a proportion of any expenditure via the efficiency incentive.

Established pension deficit repair mechanism

Our decision

Mechanism	Established Pension deficit repair mechanism
Includes	Established deficit recovery costs
Threshold	Economic and efficient costs
Window(s)	Valuations at 31 March 2016, 2019 and 2022
Treatment of costs below the threshold	If not economic and efficient not funded


- 3.81. Our decision is to introduce our Pension Deficit Allocation Methodology⁷ for the attribution of pension assets and liabilities between the established deficit, incremental deficit and non-regulated deficit. This methodology and the review process inform funding, true-up and resetting of annual allowances. The methodology implements our decision made at DPCR5.

- 3.82. We will reset allowances for the established deficit following a reasonableness review every three years based on licensee submissions of actuarial valuations as at 31 March 2013, 2016 and 2019 as part of the annual iteration process, albeit every three years.

Summary of consultation proposals

- 3.83. In our September strategy consultation we proposed to adjust revenue allowances during the price control period in light of updated information on pension deficits. We proposed that these adjustments are made every three years to coincide with the timing of the majority of triennial valuations. The purpose of the mechanism was to promote a fair balance of charges between existing and future consumers by not delaying any adjustments to allowed revenue for funding the established deficit until the next price control where

⁷ <http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=130&refer=Networks>. The decision document will be published as part of the annual costs reporting rules (RIGs).



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the adjustments are part of Ofgem's policy on pension deficit repair contributions.

Summary of consultation responses

- 3.84. The majority of respondents agreed with the proposed pension deficit repair mechanism. One commented that the mechanism as set out provided a fair balance between existing and future consumers by not delaying any adjustments to allowed revenue until the following price control period.
- 3.85. One respondent commented that although they would support the mechanism if it applied to "Established deficit", they did not consider the treatment of the incremental deficit through totex to be appropriate. This respondent felt that the materiality to shareholders and customers of potential uncontrollable changes to unexpected movements in market conditions could lead to relatively large differences compared with initial forecasts. It was argued that this could result in customers being significantly over or under charged over the course of RIIO-ED1 and beyond. For these costs the respondent thought it would be more appropriate for funding to come from a specific ex ante allowance with true-up following an efficiency review.

Reasons for our decision


- 3.86. We have decided to facilitate the implementation of the approach we set out at DPCR5 and in our 22 June 2010 Pension paper to funding and incentivising pension deficit funding. This includes the approach to funding and benchmarking the incremental deficit funding costs through totex. We have decided to follow this approach as it is consistent with the methodology across all other network operators in RIIO-TD1 and GD1.

Additional mechanisms

- 3.87. In the consultation we asked whether there are any additional mechanisms that we should be considering and if so, how these should be designed. Several respondents felt that no additional mechanisms were required in addition to those proposed in the consultation document. However, there were a number of suggestions for additional mechanisms. These are summarised below, along with reasons for our decision on whether or not we intend to consider them further.

Summary of consultation responses

- 3.88. One respondent felt that DNOs should have the option of including any additional uncertainty mechanisms in their business plans if they were sufficiently well justified. This respondent did not propose any specific additional mechanisms at this stage, however.



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- 3.89. Several respondents suggested there was a need for an additional smart meter reopener mechanism given the uncertainty surrounding several cost categories for smart meters at this stage. As discussed in the earlier section on Smart Meters, we continue to believe that a volume driver rather than reopener is the most appropriate means of dealing with uncertainty in this area.
- 3.90. One respondent felt that the ongoing DECC consultation on a common specification for black start resilience, and the possible implications for communications systems, created uncertainty in cost forecasting in this area, and therefore necessitated a specific reopener mechanism. As discussed in Chapter 6 of the Tools for Cost Assessment document, for RIIO-ED1 we have decided to introduce an ex ante allowance for work on Black Start in place of a reopener mechanism.
- 3.91. One respondent also raised the possibility of including a separate uncertainty mechanism for real price effects (RPEs). The respondent believed that the forecast of RPEs should not be included in the IQI mechanism as if a DNO was able to accurately forecast RPEs higher than Ofgem's forecast, they would be exposed to an unjustified loss of additional income. The respondent felt that RPEs are not comparable with the wider IQI process, in which it is possible to form an absolute view of efficient cost and how the forecast cost relates to this. As discussed in Chapter 4 of the 'Supplementary annex - Tools for cost assessment' document, we intend to provide DNOs with an ex ante allowance to account for forecast RPEs over the price control period. We are able to benchmark RPE assumptions across DNOs as well as consider other external evidence. Our proposal was met with a high level of agreement in the responses.
- 3.92. Finally, one respondent also recommended the introduction of an uncertainty mechanism for submarine cables. The proposed mechanism would allow a single mid-period review for submarine cables and the decommissioning of embedded diesel power stations on Orkney and the Western Isles, following completion of transmission reinforcements.

Reasons for our decision

- 3.93. We do not consider such a mechanism to be appropriate as, in our view, the level of uncertainty created by the transmission reinforcements work is insufficient to justify this. Given that DNOs are able to apply asset health assessments to submarine cables, asset work in this area should be fundable from an ex ante allowance.

Other mechanisms consulted on in September

- 3.94. In the September strategy consultation we proposed two additional mechanisms which we have decided against including as separate

mechanisms. The sections below outline these mechanisms and our reasons for not including them.

High-volume low-cost connections involving shared assets volume driver

Our decision

- 3.95. Our decision is to incorporate the high-volume low-cost connections involving shared assets volume driver as part of the load related expenditure reopener. See load related expenditure reopener section for further detail.

Summary of consultation proposals

- 3.96. We proposed a separate volume driver for high-volume low-cost connections involving shared assets. The volume driver reflected differences between the actual number of connections made and the number assumed as part of our RIIO-ED1 ex ante allowance. This difference would be combined with our RIIO-ED1 unit cost assumptions to calculate the required adjustment to future revenue. We also proposed to true up for the difference between the forecast level of customer contributions and the actual customer contributions to ensure funding received reflects actual proportion of gross shared connections costs funded upfront through connection charges. We proposed that this would be done on a symmetrical basis and would apply to under and over recoveries relative to our assumed proportion of costs to be funded by connection charges.

Summary of consultation responses

- 3.97. Respondents generally agreed with the design of the HVLC volume driver and believe that it has worked well during DPCR5 and would therefore suggest inclusion for RIIO-ED1.
- 3.98. One respondent highlighted that changing levels of demand may mean that historic data is less useful in assessing future volumes of HVLC connections.

Reasons for our decision

- 3.99. Given the potential interactions between this area of expenditure and the other load related areas of expenditure we have decided to group them all together. We believe this is a simpler, more pragmatic and potentially more flexible approach. We also avoid perverse incentives between areas covered by different mechanisms.

Low carbon technologies volume driver

Our decision

3.100. Our decision is to incorporate the low carbon technologies volume driver as part of the load related expenditure reopener rather than have a separate volume driver for low carbon technologies. See load related expenditure reopener section for further detail.

Summary of consultation proposals

3.101. We proposed a separate volume driver for low carbon technologies based on a mixture of ex ante allowance and uncertainty mechanisms to manage the risk of uncertainty for low carbon technologies during RIIO-ED1. We proposed a defined trigger point or dead band at which point the uncertainty mechanism would 'kick in'. We proposed a common volume driver across all DNOs to ensure a level playing field and to ensure all companies are equally incentivised to deploy smart grid solutions in response to higher than expected volumes of reinforcement, where they provide cost savings.

Summary of consultation responses

3.102. One respondent highlighted that the uncertainty mechanism should incentivise DNOs to enable the connection of low carbon technologies with the lowest level of network investment. They pointed out that it is inappropriate to pay DNOs using a simple volume driver based on the number of low carbon technologies to connect to a network multiplied by an average unit cost suggesting that it is not in the long-term interests of consumers as it will reward DNOs for doing nothing in certain network circumstances.

3.103. One respondent stated that the mechanism was likely to need to be calibrated differently for each DNO unless the mechanism is sufficiently granular.

3.104. One respondent suggested that setting the unit cost for this mechanism might be difficult given the limited data available and recommended that the load reopener should apply to the low carbon technologies volume driver.

Reasons for our decision

3.105. Given the potential interactions between this area of expenditure and the other load related areas of expenditure we have decided to group them all together. We believe this is a simpler, more pragmatic and potentially more flexible approach. We also avoid perverse incentives between areas covered by different mechanisms.

4. Indexation, pass through and trigger mechanisms

Chapter Summary

This chapter sets out the indexation, pass through and trigger uncertainty mechanisms that we have decided are appropriate for RIIO-ED1. It also summarises the current arrangements for disapplication of the price control where we are not making any changes.

Retail Prices Index (RPI) indexation of allowed revenues

Our decision

- 4.1. Base revenues will be set in the prices of a base year for the duration of the price control. We will continue to index revenues on changes in the Retail Prices Index (RPI) to provide protection against economy-wide inflation.
- 4.2. For RIIO-ED1, we intend to adopt the same approach to RPI indexation as adopted in RIIO-T1 and GD1. This means there will be a change from the current approach of applying a six-month average, which is applied with a lag, to the use of a 12-month average which reflects the expected RPI measure of inflation over the relevant financial year. For further information and the reasons for this change in approach see our decision of July 2011.⁸
- 4.3. The Office for National Statistics (ONS) decision to continue to publish the current RPI measure of inflation means that there is no requirement to change the RPI used to index revenues.⁹ The ONS decision also stated that it will publish a new RPI, alongside the current RPI, which will be based on a different methodology. We have considered the relative merits of using the new RPI to index revenues. Our current view is that it is appropriate to continue to use the existing RPI measure of inflation.

Summary of consultation proposal

- 4.4. In our September strategy consultation we proposed that for RIIO-ED1 we would apply the same approach to RPI indexation that will apply to RIIO-T1

⁸ Decision on RPI indexation:

<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=117&refer=Networks/Trans/PriceControls/RIIO-T1/ConRes>

⁹ ONS news release (Jan 2013): <http://www.ons.gov.uk/ons/rel/mro/news-release/rpirecommendations/rpinewsrelease.html>

and GD1. We sought views from respondents on this proposed approach. We explained that the mechanism would result in revenues being indexed each year based on a forecast of RPI. A true-up two years later would then be applied to account for differences between outturn RPI and forecast RPI.

- 4.5. We also noted the announcement by the ONS that it was reviewing and consulting on the methodology used to calculate the RPI and stated that we would consider the implications following a decision from the ONS.¹⁰

Summary of consultation responses

- 4.6. There was support for the use of RPI indexation of revenues from respondents. One response noted concerns that our proposed approach to RPI indexation was more complex than the current mechanism but recognised that it does result in a technically more correct measure of the impact of inflation.
- 4.7. A number of responses commented on the ONS's consultation on changes to the RPI. These comments highlighted the implications that a change in the RPI may have on the balance of funding between revenue allowances, through ex ante funding of real price effects, and uncertainty mechanisms, through the application of RPI indexation. The implication of a change in RPI on financial parameters was also noted.

Reasons for our decision

- 4.8. There were limited comments made on our proposed approach to RPI indexation. We continue to consider that it is appropriate to follow the same approach that will apply in RIIO-T1 and GD1 for the reasons stated in our previous decision in this area.
- 4.9. Since the closure of the RIIO-ED1 strategy consultation, the ONS has published its decision on changes to the methodology for deriving the RPI. Its decision was to continue to publish the RPI under the current methodology. It also intends to publish, from March 2013, a measure of inflation based on a different methodology to that used currently.¹¹
- 4.10. Our current view is that we will continue to use the existing RPI measure of inflation to index revenues. It is currently unclear what the new index, RPIJ, will be used for. The HM Treasury has stated that index-linked gilt cash flows will continue to be calculated by reference to the RPI. Until there is a clearer view of the use of RPIJ in financial transactions we consider that revenues should be indexed on changes to the current RPI.

¹⁰ ONS news release (Oct 2012): <http://www.ons.gov.uk/ons/rel/mro/news-release/national-statistician-consults-on-changes-to-retail-prices-index/nsconsultrpinr1012.html>

¹¹ This will be known as RPIJ.

Cost of debt indexation

Our decision

- 4.11. A summary of our September strategy consultation and responses received, along with further details of the decision can be found in Chapter 2 of 'Supplementary annex - Financial issues'.
- 4.12. Our decision is as follows:
- to set the cost of debt allowance in the WACC based on a 10-year simple trailing average index (with provision for companies to justify alternative weighting to the trailing average in exceptional circumstances)
 - to update this allowance annually during the price control
 - to use an average of the iBoxx GBP Non-Financials indices of 10+ years maturity, with credit ratings of broad A and broad BBB
 - to deflate the indices by 10-year breakeven inflation data published by the Bank of England
 - we are not making adjustments in the index for debt issuance fees, liquidity management fees, new issue premium or the inflation risk premium.

Pass through of Ofgem licence fees

Our decision

- 4.13. We will continue to provide a pass through mechanism to allow DNOs to recover the actual cost of Ofgem licence fees. As a result of our decision of October 2012 to introduce measures to mitigate charging volatility, this mechanism will operate with a lag. In practice this will mean that an allowance is provided based on the expected value of the pass through cost for the eight years of the price control. The mechanism will adjust this ex ante allowance to true up for actual costs incurred, but with a two year lag. The true-up will take account of financing costs from the delay in recovery of actual costs incurred.

Summary of consultation proposals

- 4.14. We proposed that licence fees would continue to be a pass through cost. We noted that one of the reasons for continuing with this treatment was that licence fee payments are outside of the control of DNOs and therefore DNOs should not face the risk of changes in these costs were an ex ante allowance provided.

Summary of consultation responses

- 4.15. All responses supported the continued use of a pass through mechanism.

Reasons for our decision

- 4.16. We continue to support a continuation of the current pass through mechanism for the reasons stated in our September strategy consultation and note that this approach was supported by respondents.

Pass through of business rates

Our decision

- 4.17. Our decision on business rates is to introduce the same incentivisation approach to business rates as applied to transmission and gas distribution licensees. This effectively retains business rates as a pass through from the next revaluation due in 2017, subject to DNOs demonstrating that they have taken appropriate actions to minimise the valuations. As a result of our decision of October 2012¹² to introduce measures to mitigate charging volatility, this mechanism will operate with a lag. In practice this will mean that an allowance is provided based on the expected value of the pass through cost for the eight years of the price control. The mechanism will adjust this ex ante allowance to true up for actual costs incurred, but with a two year lag. The true-up will take account of financing costs from the delay in recovery of actual costs incurred.

Summary of consultation proposals

- 4.18. In our September strategy consultation, we consulted on whether stakeholders had any views on our proposal to switch-off the pass through mechanism for business rates pending the outcome of the next and subsequent revaluation exercises. Where network companies could demonstrate that they have taken reasonable actions to minimise the rating valuations, we would then reactivate the cost adjustment mechanism for the remainder of the price control period. This would bring DNOs onto the same basis as the transmission and gas distribution network operators.

Summary of consultation responses

- 4.19. A summary of our September strategy consultation and responses received on the treatment of business rates, along with further details of the decision can be found in Chapter 5 of 'Supplementary annex - Financial issues'.

¹² http://www.ofgem.gov.uk/Networks/Policy/Documents1/CV_Decision.pdf

Reasons for our decision

- 4.20. We consider that our approach to business rates provides incentives on network companies to minimise costs, while recognising that once the rating valuations are concluded the costs that they incur will be non-controllable.

Pass through of transmission connection point charges

Our decision

- 4.21. We have decided to retain the DPCR5 pass through mechanism for assets installed prior to the new price control, (ie prior to 1 April 2015) GSP refurbishment in RIIO-ED1 and any work not resulting from a DNO requirement. As a result of our decision of October 2012 to introduce measures to mitigate charging volatility, this mechanism will operate with a lag. In practice this will mean that an allowance is provided based on the expected value of the pass through cost for the eight years of the price control. The mechanism will adjust this ex ante allowance to true-up for actual costs incurred, but with a two year lag. The true-up will take account of financing costs from the delay in recovery of actual costs incurred.

Summary of consultation proposals

- 4.22. We proposed in the September strategy consultation two options for the treatment of costs associated with transmission connection points. One of the proposed options was to retain the DPCR5 mechanism of passing through costs associated with assets installed prior to the price control.

Summary of consultation responses

- 4.23. One respondent was not in favour of moving to an ex ante allowance for transmission connection point charges.

Reasons for our decision

- 4.24. In light of the responses we have revised our approach to how we will set allowances for RIIO-ED1. We have sought to simplify the mechanism while addressing the concerns raised over exposing DNOs to increased risk. We continue to believe that DNOs can and should be incentivised in this area. In our view those schemes initiated by the DNO should be included within the ex ante allowances, as through their ongoing dialogue with the transmission operator they should have a greater degree of certainty over them.

Data Communications Company fixed costs

- 4.25. As set out in Chapter 3, there are two types of costs related to the smart metering programme that may be incurred by the DNOs – costs related to DNOs being called out to consumer premises during the roll-out, and costs related to the DNOs' use of smart metering data. The former is discussed in Chapter 3, under the smart meter volume driver. The latter is discussed here.
- 4.26. Data Communications Company (DCC) fixed costs are costs/fees that will be charged to the DNOs for use of the DCC services as well as costs for the DNOs' IT systems, including data aggregation systems, that would enable the DNOs to effectively use smart metering data.

Our decision

- 4.27. As set out in Chapter 3 of the 'Supplementary annex – Outputs, incentives and innovation' we have decided that while smart meters are being rolled out we will provide full pass through of DCC costs. We have also decided that DNOs can only pass through any fixed costs of smart metering data up until the smart meter roll out is complete at the end of the 2019-20 reporting year. As a result of our decision of October 2012 to introduce measures to mitigate charging volatility, this mechanism will operate with a lag. In practice this will mean that an allowance is provided based on the expected value of the pass through cost for the eight years of the price control. The mechanism will adjust this ex ante allowance to true up for actual costs incurred, but with a two year lag. The true-up will take account of financing costs from the delay in recovery of actual costs incurred.
- 4.28. Variable data costs will be subject to the efficiency incentive.

Summary of consultation proposals

- 4.29. We proposed that fixed data costs mandated by licence would be treated as pass through.

Summary of consultation responses

- 4.30. Some respondents suggested that costs which should be treatable as pass through should also be extended. Suggested costs for pass through included the cost of data which DNOs must make use of in order to discharge their duties under their licences and the cost of modernising LV service assets.

Reasons for our decision

- 4.31. While some of the benefits will start being realised during the roll out period, we expect that DNOs will be able to realise the full benefits from this data

once the roll out is complete. Consequently, overall costs are expected to be reduced from 2019 onwards with at least an amount which offsets all of the fixed data costs of obtaining smart metering data.

Tax trigger

Our decision

Mechanism	Tax trigger mechanism
Includes	Changes to or interpretation of tax legislation or rates of corporation tax (CT) or capital allowances outside the licensee's control
Threshold	Greater of a one per cent change in the rate of mainstream CT and a change of 0.33 per cent in base demand revenues, Adjustment can be an increase or a decrease in revenues dependent on trigger event
Window(s)	Annually in accordance with Annual Iteration Process
Treatment of costs below the threshold	No adjustment to revenues

4.32. We have decided to continue with the tax trigger mechanism introduced in DPCR5, refining the calibration of the dead-band for the trigger mechanism.

Summary of consultation proposals

4.33. We proposed to retain the DPCR5 tax trigger mechanism. To calibrate the dead band for the tax trigger as the greater of a one per cent change in the rate of mainstream corporation tax (CT) and a change of 0.33 per cent in base demand revenues. That those amounts be fixed throughout the price control for each DNO and not revised through the operation of the annual iteration process.

Summary of consultation responses

4.34. A summary of our September strategy consultation and responses received on the tax trigger mechanism, along with further details of the decision can be found in Chapter 5 of 'Supplementary annex - Financial issues'.

4.35. Three respondents preferred retaining the DPCR5 approach to calibrating the dead-band at 0.33 per cent of base demand revenues, with two supporting our proposal. Another proposed that once the dead band threshold was breached that the whole of the tax trigger effect should be adjusted, not just the amount in excess of the dead band limit.

Reasons for our decision

- 4.36. We have retained the tax trigger as it was effective in DPCR5 in protecting consumers following the continuing annual reductions in corporation tax rates, the benefits of which DNOs would otherwise have benefitted from in full.
- 4.37. We introduced the tax trigger mechanism across all energy network operators at RIIO-T1 and GD1, and wish to maintain a consistent approach to the mechanism and to the calibration of the dead-band.

Disapplication of the price control

Our decision

- 4.38. We will retain our current electricity distribution disapplication policy for RIIIO-ED1. We will bring the drafting of the disapplication condition up to date with the legislative changes to the licence modification process brought about by the Third Package. We will not otherwise change the condition or the guidance document on arrangements for responding in the event that a network company experiences deteriorating financial health. We will consider any requests for disapplying the price control within period in the event that financeability is put at risk in accordance with the guidance document.¹³ We expect such requests to be made rarely. We will not provide regulatory relief to alleviate financial distress in all circumstances. We will consider why a DNO faces financial distress and the extent to which they have acted reasonably, and have financed and operated the network efficiently.
- 4.39. Where financial distress arises despite a DNO operating in an economic and efficient manner, we will consider at our discretion the tools, if any, that are appropriate to respond to that distress.

Summary of consultation proposals

- 4.40. We set out that our statutory duties (including the financing duty) did not only apply at the time that a price control is set. If circumstances arose during the control period, which meant that the revenue allowance set at the price control review was insufficient to enable an efficiently managed company to finance its regulated activities, then we would consider requests from that company for amendments to its price control. If there was sufficient justification to do so, the price control would be re-opened. We also proposed that we would not change our current policy, either for the disapplication licence condition (other than to bring the drafting up to date with the

¹³ <http://www.ofgem.gov.uk/Networks/Policy/Documents1/GUIDANCE%20DOCUMENT%20-%20FINAL%20OCT%2009.pdf>

legislative changes to the licence modification process brought about by the Third Package), or the guidance document.

Summary of consultation responses

- 4.41. The majority of respondents agreed with our proposals regarding the disapplication of the price control. One respondent expressed strong support for retention of the option but stated that it should also be recognised that DNOs are facing a growing number of different risks.
- 4.42. One respondent disagreed with our proposal. The respondent's view was that the process set out in the licences is no longer applicable. As an alternative, the respondent proposed that consideration should be given to a mechanism whereby in certain circumstances the licensee may trigger a formal licence modification process to disapply all or part of the price controls.

Reasons for our decision

- 4.43. We have decided to retain the proposal that was set out in the September strategy consultation. Our financing duty requires us to have due regard to any request for price control disapplication in the event of genuine financial distress. We believe that this, coupled with the protections provided for under our electricity distribution disapplication condition (as updated) and the guidance, provide an appropriate level of protection for DNOs in the event of financial distress.

5. Mid-period review of outputs


Chapter Summary

In this chapter we set out how we expect the mid-period review of output requirements to operate over RIIO-ED1. This includes setting out the scope of the review and the process we would expect to follow, including the consultation(s) that will be conducted and the associated timescales.

Scope and use of the mid-period review of output requirements

Our decision

- 5.1. There is potential for greater uncertainty under a longer price control period. As such, in line with RIIO-T1 and GD1, and in addition to other uncertainty mechanisms, we also decided to carry out a mid-period review of output requirements in RIIO-ED1. We will initiate this with an open letter consultation in January 2018.
- 5.2. The scope of the mid-period review of output requirements will be restricted to cover:
 - material changes to existing outputs that can be justified by clear changes in government policy (eg if government policy on climate change changes, a higher or lower level of delivery or performance may be needed)
 - introducing new outputs that may be needed to meet the needs of consumers and other network users.
- 5.3. Other than in these circumstances, the mid-period review will not be used to adjust the output measures or output incentives that were set at the price control review.
- 5.4. The mid-period review process will not be used to consider revenue adjustments that could be triggered throughout the process by other mechanisms. For example, if we were to adjust a DNO's revenue for the implementation of ideas developed through the innovation stimulus, as described above, this would be done in a separate process from the mid-period review.
- 5.5. Should the outcome of the mid-period review be a change to an existing output, we will not apply any alterations retrospectively (eg a change in the incentive rate or to the output level).



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- 5.6. We will not set a quantitative threshold (eg related to expenditure implications) as to whether a potential output change is sufficiently material. In taking decisions at the mid-period review of output requirements, we will give weight to the potential risks and downsides of changes being considered. These include:
- the risk of reducing incentives to improve output performance over the price control period
 - administrative costs of the review
 - the risks of the review process and uncertainty caused by it distracting companies from delivery
 - the risks of unintended consequences from a change in outputs
 - creating network charging volatility.
- 5.7. If we decide, following consultation, that a change to output requirements is needed, we will review whether, and to what extent, the revenue in the price control will need to change to reflect the impact of the change in outputs on expenditure requirements over the remainder of the price control period. Any change to allowed revenues will be limited to what can be justified by the change to outputs.
- 5.8. The potential adjustment to the revenue allowance from the mid-period review of output requirements will not be used to reduce charges to consumers where a company has delivered at lower costs than expected at the price control review, or to increase charges to consumers when costs have been higher than expected. Furthermore, the mid-period review is not an opportunity to penalise companies for non delivery – this will be done through the relevant output incentive mechanisms and enforcement action.
- 5.9. When making a change at the mid-period review we will look to apply the latest information available to set the level of incremental revenue associated with changes to outputs driven by government policy or new outputs that are in the interest of consumers and other network users. We will not be constrained by any cost assessment made at the price control review, although we will consider this information insofar as it is relevant. We are committed to not making retrospective adjustments at the mid-period review, for example, to 'claw-back' any gains that had been made through delivery of the outputs set at the price control at lower cost than expected.
- 5.10. As part of the mid-period review process we would look to DNOs and other stakeholders to identify any risks of retrospective adjustments (i.e. changes to allowances with the benefit of hindsight), which we would be seeking to avoid.
- 5.11. The review will not be used:
- to reduce/increase charges to consumers where a company has delivered at lower/higher costs than expected at the price control review

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- as an opportunity to penalise companies for non delivery – this will be done through the relevant output incentive mechanisms and enforcement action as appropriate
- to consider revenue adjustments that could be triggered throughout the process by other separate RIIO mechanisms, even if the time periods coincide. This would include adjustments to a network company’s revenue:
 - for the implementation of ideas developed through the innovation stimulus
 - for changes made due to uncertainty mechanisms
 - to make a change to an existing output where the measurement/reporting arrangements are found to be unfit or where an administrative error has been identified.

5.12. In addition, we confirm that DNOs and other stakeholders will be able to come to us and make a case for a new output measure to be added at the mid-period review. In keeping with the RIIO handbook guidelines on outputs any new output measures would be subject to a thorough assessment of their appropriateness and the extent to which they can be implemented consistently across all DNOs.

5.13. Any adjustments made at the mid-period review will be implemented by a licence change. This approach is consistent with RIIO-T1 and GD1. The same logic applies for RIIO-ED1; avoiding the need to define a threshold below which a licence change is not needed and the unnecessary complexity that would be added to the mid-period review process.

Summary of consultation proposals

5.14. In our September strategy consultation, we set out that the proposed scope of the mid-period review of output requirements would tightly restricted to:

- changes to outputs that can be justified by clear changes in government policy
- the introduction of new outputs that are needed to meet the needs of consumers and other network users.

5.15. In addition, we also provided an indicative timetable for the review and set out the elements below:

- the process that will be followed to decide whether there is a material change that requires a mid-period adjustment to outputs
- how a change made at the review would feed through to a change in revenue allowance
- that any changes made at the review would be appealable.

Summary of consultation responses

- 5.16. The majority of responses received agreed with our proposals on the scope of the mid-period review. One respondent felt that mid-period reviews for both the losses mechanism and the broad measure of customer satisfaction would also be appropriate. Another respondent agreed with limiting the mid-period review to clear changes in government policy but also felt that the review should be extended to existing output measures which were shown to no longer properly capture consumer requirements.
- 5.17. The majority of respondents also agreed with the indicative process and timetable for the mid-period review. One respondent believed that the review should be extended to allow the inclusion of lessons learnt during the price control period up to that point. The respondent did not state whether this should apply to any specific areas however. Another respondent also expressed a concern that the process may lead to significant uncertainty around prices and felt that it should begin a month earlier than proposed.
- 5.18. On the timing of licence modifications in consequence of the mid-period review, one respondent felt that these should be made as soon as reasonably practicable following completion of the change and no later than 1 April 2019, whilst another felt that licence changes needed to come into effect by April of the following regulatory year. Another respondent emphasised the importance of making licence changes at a time which respected stakeholders' entitlement to appeal the result and that this should take into account the risk of delay that an appeal might introduce.

Reasons for our decision

- 5.19. The mid-period review is intended to cover external factors affecting the operation of the RIIO-ED1 price control. It is not intended to be an opportunity for either Ofgem or the DNOs to conduct a mini price review. As such we are keeping the scope of the mid-period review tight. The submission of business plans is the key opportunity for DNOs to propose the outputs they believe are required for RIIO-ED1. Stakeholders should provide their views on the DNOs plans and our proposals for each DNO at the appropriate stages of the review. The mid-period review should not be seen as an opportunity to re-open decisions taken at the price control.

Appendices

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1	Summary of consultation responses	45

Appendix 1 – Summary of consultation responses

CHAPTER: One

N/A

CHAPTER: Two

Question 1: Are there any additional criteria that we should take into account to guide the appropriate use of uncertainty mechanisms?

The majority of respondents to our September strategy consultation felt that the mechanisms and criteria proposed were generally appropriate. Some respondents made general suggestions as to how the mechanisms and approach could be refined. One respondent commented that they felt it was appropriate for Ofgem to evaluate the justifications and drawbacks of each uncertainty mechanism. The respondent felt that this should comprise two stages. Firstly, an assessment of whether the degree of control a DNO has over the uncertainty being considered necessitates the use of an uncertainty mechanism. Secondly, if a mechanism was deemed to be necessary, the magnitude/materiality of the risk needed to be gauged in order to determine the appropriate type of mechanism.

Another respondent put forward their view that where any of the uncertainty mechanisms discussed in this document meet the required materiality thresholds at any time during the RIIO-ED1 period, then they should be eligible for logging and reviewing for RIIO-ED2. The respondent pointed out that this should not however apply to any activity which had already been allowed during the RIIO-ED1 reopener.

CHAPTER: Three

Question 1: Do you have any views on the design of the proposed high-volume low-cost connections volume driver?

Respondents generally agreed with the design of the HVLC volume driver and believe that it has worked well during DPCR5 and would therefore suggest inclusion for RIIO-ED1. One respondent highlighted that changing levels of demand may mean that historic data is less useful in assessing future volumes of HVLC connections.

Question 2: Do you have any views on the design of the proposed low carbon technologies volume driver?

One respondent highlighted that the uncertainty mechanism should incentivise DNOs to enable the connection of low carbon technologies with the lowest level of network investment. They pointed out that it is inappropriate to pay DNOs using a simple volume driver based on the number of low carbon technologies to connect to a

network multiplied by an average unit cost suggesting that it is not in the long-term interests of consumers as it will reward DNOs for doing nothing in certain network circumstances.

One respondent stated that the mechanism was likely to need to be calibrated differently for each DNO unless the mechanism is sufficiently granular. One respondent suggested that setting the unit cost for this mechanism might be difficult given the limited data available and recommended that the load reopener should apply to the low carbon technologies volume driver.

Question 3: Do you have any views on the design of the proposed smart meters volume driver?

Several respondents referred to the current level of uncertainty surrounding the volume of work that will be required from DNOs during the smart meter roll-out, for example: would the rate of DNO call outs increase; how much would need to be spent on administration over the period to fully realise the benefits of smart meters. Respondents considered these costs to be very difficult to forecast and as a result several suggested that an additional uncertainty mechanism would be required in addition to the volume driver.

Respondents also felt that the scope of any smart meter uncertainty mechanism reopener should be expanded to include all costs that DNOs may incur following the rollout, including: on site costs; cut-out inspections; the cost of purchasing data from DataCommsCo (DCC); data management and storage costs; and costs of extra activities driven by new information.

Question 4: Do you have any views on the design of the proposed street works reopener?

Respondents were generally supportive of the continuation of the street works reopener. However, some proposed changes to its scope, its materiality, and the regularity of the reopener window. Several respondents felt that the definition of street works should be expanded and the cost of the following activities were suggested to be appropriate for inclusion in this definition: all reinstatement activities (including core sampling costs and fines); street works permitting; lane rentals (provided cost estimates are well justified).

In relation to materiality, one respondent felt that this should be maintained at the DPCR5 level, in order to ensure DNO risk does not increase. Respondents suggested that two or three reopener windows would be more appropriate. They justified this by the uncertainty surrounding costs in this area and their belief that additional windows could help to reduce price volatility and provide an incentive for efficiency. One respondent, although supportive of the proposal to have only one reopener window, felt that the timing of this could present a difficulty if a significant change in street works charges is imposed by local authorities early in the RIIO-ED1 period.

Question 5: Do you have any views on the design of the proposed enhanced physical site security reopener?

Most respondents agreed with our proposed design of the enhanced physical site security reopener. One respondent noted that since they had experienced investment requirements in site security and replacement of stolen equipment on an exponential basis, it would be difficult to accurately forecast expenditure in this area.

One respondent stated, however, that they were not aware of a likely significant new requirement from government to change physical site security for key DNO assets. As such, they felt that ex ante allowances could be set for enhancing site security and that a reopener was not required.

Question 6: Do you have any views on the design of the proposed load-related expenditure reopener?

Five of the six respondents supported extending the scope of the reopener to include each of the areas that make up load-related expenditure. The sixth respondent felt that the reopener trigger was not appropriate and that relevant volume drivers could be adjusted where actual costs differed materially from the unit cost from which the ex ante allowance was set.

In terms of how the reopener mechanism operates, one respondent proposed that the assessment process should allow the potential for high returns for relatively risky investments that deliver cost savings in the accommodation of low-carbon devices onto the network.

Question 7: Do you have any views on the design of the proposed high value projects reopener?

All of the respondents in this area agreed a high value projects reopener was necessary. Several respondents did however feel that the project threshold value was not appropriate. One respondent felt that the proposed threshold of £50m did not reflect the differing requirements for DNOs in drawing on this area of expenditure and did not feel that the determination of the threshold value had been fully explained. This respondent felt that the existing DPCR5 mechanism was appropriate and should be continued into RIIO-ED1, while one other respondent also felt that the threshold value was too high. Several other respondents felt that either the proposed threshold of £50m was appropriate or that the DPCR5 threshold value should be raised.

With regards to the proposal for the reopener window, one respondent felt that by not introducing this until 2019, DNOs would be required to carry the risks of HVP for the four years of the price control up to this point, and for the reopener deliberation period. It was felt that this could effectively undermine the risk reducing intent of the reopener. This respondent suggested that three reopener windows at the end of years 2, 4 and 6 would be appropriate.

Question 8: Do you have any views on the design of the proposed innovation roll out mechanism reopener?

The majority of respondents were supportive of the proposed innovation roll out mechanism. Some commented that it would provide a welcome opportunity for DNOs to apply for additional funding for innovative projects. Some modifications to the

mechanism were put forward. One respondent felt that the materiality threshold as proposed was not clear enough to implement, while another thought that its introduction would be counterproductive. This respondent felt that the threshold would discourage DNOs from developing small projects that could have intangible benefits to customers. Their suggestion was that the mechanism could alternatively be adjusted for 100 per cent of the additional costs incurred rather than just costs exceeding the materiality threshold.

One respondent also suggested that DNOs should be asked to demonstrate how the innovation achieves any relevant outputs and that these should be considered when assessing the need for any relevant adjustments.

Question 9: Do you have any views on the design of the proposed pension deficit repair mechanism reopener?

The majority of respondents agreed with the proposed pension deficit repair mechanism. One commented that the mechanism as set out provided a fair balance between existing and future consumers by not delaying any adjustments to allowed revenue until the following price control period.

One respondent commented that although they would support the mechanism if it applied to "Established deficit", they did not consider the treatment of the incremental deficit through totex to be appropriate. This respondent felt that the materiality to shareholders and customers of potential uncontrollable changes to unexpected movements in market conditions could lead to relatively large differences compared with initial forecasts. It was argued that this could result in customers being significantly over or under charged over the course of RIIO-ED1 and beyond. For these costs the respondent thought it would be more appropriate for funding to come from a specific ex ante allowance with true-up following an efficiency review.

Question 10: Are there any additional mechanisms that we should be considering? If so, how should these be designed?

One respondent felt that DNOs should have the option of including any additional uncertainty mechanisms in their business plans if they were sufficiently well justified. This respondent did not propose any specific additional mechanisms at this stage however. Several respondents suggested there was a need for an additional smart meter reopener mechanism given the uncertainty surrounding several cost categories for smart meters at this stage. One respondent felt that the ongoing DECC consultation on a common specification for black start resilience, and the possible implications for communications systems, created uncertainty in cost forecasting in this area, and therefore necessitated a specific reopener mechanism.

One respondent also raised the possibility of including a separate uncertainty mechanism for real price effects (RPEs). The respondent believed that the forecast of RPEs should not be included in the IQI mechanism as if a DNO was able to accurately forecast RPEs higher than Ofgem's forecast, they would be exposed to an unjustified loss of additional income. The respondent felt that RPEs are not comparable with the wider IQI process, in which it is possible to form an absolute view of efficient cost and how the forecast cost relates to this. Finally, one respondent also recommended the introduction of an uncertainty mechanism for submarine cables. The proposed

mechanism would allow a single mid-period review for submarine cables and the decommissioning of embedded diesel power stations on Orkney and the Western Isles, following completion of transmission reinforcements.

CHAPTER: Four

Question 1: Do you have any views on the proposed RPI indexation of allowed revenues mechanism?

There was support for the use of RPI indexation of revenues from respondents. One response noted concerns that our proposed approach to RPI indexation was more complex than the current mechanism but recognised that it does result in a technically more correct measure of the impact of inflation.

A number of responses commented on the ONS's consultation on changes to the RPI. These comments highlighted the implications that a change in the RPI may have on the balance of funding between revenue allowances, through ex ante funding of real price effects, and uncertainty mechanisms, through the application of RPI indexation. The implication of a change in RPI on financial parameters was also noted.

Question 2: Do you have any views on the proposed cost of debt indexation mechanism?

A summary of our September strategy consultation and responses received, along with further details of the decision can be found in Chapter 2 of 'Supplementary annex - Financial issues'.

Question 3: Do you have any views on the proposed pass through of Ofgem licence fees and business rates?

All responses in this area supported the continued use of a pass through mechanism for Ofgem licence fees.

Question 4: Do you have any views on the proposed tax trigger mechanism?

A summary of our September strategy consultation and responses received on the tax trigger mechanism, along with further details of the decision can be found in Chapter 5 of 'Supplementary annex - Financial issues'.

Three respondents preferred retaining the DPCR5 approach to calibrating the dead band at 0.33 per cent of base demand revenues, with two supporting our proposal. Another proposed that once the dead band threshold was breached, the whole of the tax trigger effect should be adjusted, not just the amount in excess of the dead band limit.

Question 5: Do you have any views on the disapplication of the price control process?

The majority of respondents agreed with our proposals regarding the disapplication of the price control. One respondent expressed strong support for retention of the option but stated that it should also be recognised that DNOs are facing a growing number of different risks.

One respondent disagreed with our proposal. The respondent's view was that the process set out in the licences is no longer applicable. As an alternative, the respondent proposed that consideration should be given to a mechanism whereby in certain circumstances the licensee may trigger a formal licence modification process to disapply all or part of the price controls.

Question 6: Are there any additional mechanisms that we should be considering? If so, how should these be designed?

One respondent suggested that a modified Distributed Generation incentive mechanism should be included for ED1. Another respondent believed an additional mechanism should be considered, a transmission exit charges mechanism should be introduced to allow pass-through of transmission exit charges, since many aspects of these are outside the control of the DNO.

CHAPTER: Five

Question 1: Do you agree with the scope of the mid-period review? If not, what changes to the scope are needed?


The majority of responses received agreed with our proposals on the scope of the mid-period review. One respondent felt that mid-period reviews for both the losses mechanism and the broad measure of customer satisfaction would also be appropriate. Another respondent agreed with limiting the mid-period review to clear changes in government policy but also felt that the review should be extended to existing output measures which were shown no longer to properly capture consumer requirements.

Question 2: Do you agree with the indicative process and timetable? If not, how could the process and timetable be improved?

The majority of respondents also agreed with the indicative process and timetable for the mid-period review.

One respondent believed that the review should be extended to allow the inclusion of lessons learnt during the price control period up to that point. The respondent did not state whether this should apply to any specific areas however. Another respondent also expressed a concern that the process may lead to significant uncertainty around prices and felt that it should begin a month earlier than proposed.

Question 3: Do you have views on when we should make licence changes as a result of any actions taken at the mid-period review? If a threshold to make a licence change is seen as appropriate, what should this be?



Strategy decision for the RIIO-ED1 electricity distribution price control Uncertainty mechanisms

On the timing of licence modifications in consequence of the mid-period review, one respondent felt that these should be made as soon as reasonably practicable following completion of the change and no later than 1 April 2019, whilst another felt that licence changes needed to come into effect by April of the following regulatory year. Another respondent emphasised the importance of making licence changes at a time which respected stakeholders' entitlement to appeal the result, and that this should take into account the risk of delay that an appeal might introduce.