

# Consultation on a potential RIIO-ED1 Mid-Period Review

## Consultation

**Publication date:** 1 December 2017

**Response deadline:** 2 February 2018

**Contact:** Steve McMahon

**Team:** RIIO-ED

**Tel:** 0141 354 5416

**Email:** [RIIO.ED1@ofgem.gov.uk](mailto:RIIO.ED1@ofgem.gov.uk)

### Overview:

To help manage uncertainty in the RIIO price controls, we made provision for a Mid-Period Review (MPR) of outputs. We are now consulting on a potential MPR for electricity distribution (RIIO-ED1).

In this document, we are seeking views from stakeholders on issues which could be considered as part of an MPR as currently defined, as well as: (i) a potential small extension of scope justified by clear changes in government policy to cover discrete projects with clearly defined deliverables and (ii) a potential wider extension of scope. We will decide in Spring 2018 whether or not to initiate an MPR for RIIO-ED1.

## Context

---

RIIO is Ofgem's framework for setting price controls for the monopoly network companies. The RIIO-ED1 price control sets the outputs that the companies who run the distribution (lower voltage) network need to deliver for consumers, and the associated revenues they are allowed to collect for the eight-year period from 1 April 2015 until 31 March 2023.

The RIIO framework allows for a Mid-Period Review (MPR) of outputs halfway through the price control. We are now consulting on the need for an MPR for RIIO-ED1, as currently defined, and seeking views on: (i) a potential small extension of scope justified by clear changes in government policy and (ii) a potential wider extension of scope. We will decide whether an MPR is required in Spring 2018. If we decide to launch an MPR, we will consult on detailed proposals in summer 2018. Any associated licence changes would need to be in place by 1 April 2019.

## Associated documents

---

[Handbook for implementing the RIIO model](#)

[Strategy Decision for RIIO-ED1 – Overview](#)

[Strategy Decision for RIIO-ED1 – Uncertainty](#)

[Potential RIIO-ED1 Mid-Period Review: timetables and next steps](#)

# Contents

---

<b>Executive Summary</b>	<b>4</b>
Background	4
Mid-Period Review	4
This consultation	4
Next Steps	5
<b>1. Background</b>	<b>6</b>
Introduction	6
Mid-Period Review – background	6
Purpose	6
Scope	6
Electricity distribution – company performance	7
Expenditure performance	8
Output performance	9
Next Steps	10
Responding to this consultation	10
<b>2. External factors potentially affecting RIIO-ED1</b>	<b>12</b>
Material changes in outputs resulting from changes in government policy	12
Issue 1 – Electric Vehicles	12
Issue 2 – Implementation of the European Clean Energy Package	13
Issue 3 – National Flood Resilience Review	13
Issue 4 – Resilience of Networks and Information Systems	14
Issue 5 – Black Start	14
New outputs resulting from changes in network user and/ or consumer needs	15
Issue 6 – Whole-system outcomes and the transition to Distribution System Operator (DSO)	15
Issue 7 – Smart Meters	16
Material changes resulting from changes in government policy to projects not formally identified as outputs	17
Issue 8 – Rail Electrification	17
<b>3. Additional issues considered</b>	<b>19</b>
Financial and incentive performance and design	19
Miscellaneous issues	20
Load Indices	20
Resetting connections targets	21
<b>Appendices</b>	<b>22</b>
<b>Appendix 1 – Draft Impact Assessment</b>	<b>23</b>
<b>Appendix 2 - Feedback on this consultation</b>	<b>29</b>

# Executive Summary

---

## Background

RIIO-ED1 sets the outputs that the electricity distribution network operators (DNOs) must deliver, and the revenues they are allowed to collect, between 1 April 2015 and 31 March 2023.

When setting the price control we recognised that a longer price control period could bring potential for greater uncertainty. In order to manage this and ensure companies continue to deliver the outputs that consumers benefit from, we included a number of uncertainty mechanisms within the price control. These may allow for changes in DNOs' outputs and allowed revenues.

## Mid-Period Review

One of the uncertainty mechanisms is a mid-period review (MPR) of outputs. The MPR is designed to identify potential changes to the outputs DNOs are expected to deliver, justified by clear shifts in government policy, or whether any new outputs are required for the remainder of the price control.

We defined the scope of the ED-MPR as covering material changes to existing outputs that can be justified by clear changes to government policy, and new outputs that may be needed to meet the needs of consumers and other network users.

As with the approach for RIIO-T1 and RIIO-GD1, we made it clear that the ED-MPR is not an opportunity to re-open the price control through a mini price review. We also set out that the process for the MPR should be symmetric – changes to outputs can result in increases or decreases in output requirements and, where appropriate, corresponding funding for the remainder of the price control.

## This consultation

We have reviewed the policy areas within the Electricity Distribution price control to identify any issues that could be addressed through an MPR, and engaged with stakeholders to seek their views on issues we should consider. Through this process, we identified a number of issues that could potentially be considered through the MPR as currently defined, as well as one issue which would require a discrete extension of scope. We also identified issues that we believe fall outside of the scope of the MPR. These would require a significant extension of scope in order to be addressed through the MPR.

Through this consultation we would like your views on:

1. Whether or not we should proceed with an MPR as currently defined based on the issues described in Chapter 2;
2. A potential small extension of scope justified by clear changes in government policy to cover discrete projects with clearly defined deliverables, as described in Chapter 2;
3. Wider issues as raised by stakeholders and your views on a significant broadening of scope in order to capture these, as described in Chapter 3;

4. Any other issues you have identified that have not been covered in this consultation.

If we decide to proceed with an MPR then we will need to ensure there is a balance between making changes to ensure outputs (and corresponding funding) continue to reflect the needs of consumers and network users, and providing regulatory stability in the interests of consumers. We would like to know whether you think the issues we have identified merit being considered in an MPR or by means of an extension to MPR, where other mechanisms do not exist to deal with them, as well as any issues we have not yet identified.

## **Next Steps**

After this consultation, we will decide in Spring 2018 on whether or not to initiate an ED-MPR and, if initiated, whether or not the scope will remain as currently defined.

# 1. Background

---

## Chapter Summary

This chapter provides background on the MPR and on electricity distribution company performance.

**Question 1: Do you have any comments on the scope of the ED-MPR?**

**Question 2: Do you have any comments on the preliminary information on company performance provided in this document?**

## Introduction

1.1. In July 2017, we issued a call for evidence marking the start of our formal engagement on ED-MPR.<sup>1</sup> Responses to our Call for Evidence are available on our website.<sup>2</sup> We are now consulting on the need for an MPR in RIIO-ED1, and seeking views from stakeholders on issues that may fall within scope of the MPR as currently defined (or within the scope of an extended MPR).

## Mid-Period Review – background

### Purpose

1.2. In setting RIIO-ED1, we recognised the potential for greater uncertainty under a longer price control period. As a result, we made provision for a potential mid-period review of output requirements.

1.3. The purpose of an MPR is to identify potential changes to existing outputs that distribution network operators (DNOs) are expected to deliver, justified by clear changes in government policy, or whether any new outputs are required for the remainder of the price control.

### Scope

1.4. We set out the scope of the ED-MPR in our RIIO-ED1 Strategy Decision<sup>3</sup>:

*"The scope of the mid-period review of output requirements will be restricted to cover:*

---

<sup>1</sup> [https://www.ofgem.gov.uk/system/files/docs/2017/07/riio-ed1\\_mpr\\_call\\_for\\_evidence\\_july\\_2017.pdf](https://www.ofgem.gov.uk/system/files/docs/2017/07/riio-ed1_mpr_call_for_evidence_july_2017.pdf)

<sup>2</sup> <https://www.ofgem.gov.uk/publications-and-updates/potential-riio-ed1-mid-period-review-timetable-and-next-steps-call-evidence>

<sup>3</sup> [Strategy Decision for the RIIO-ED1 price control – Uncertainty Mechanisms](#)

- *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.”*

1.5. This definition sets out that the MPR is designed to cover external factors that affect the operation of the price control. The Strategy Decision also clarified that the MPR process is not an opportunity to conduct a mini price review.

1.6. In line with our approach to the MPR in the other sectors, the process for an MPR in RIIO-ED1 should be symmetric.<sup>4</sup> Changes to outputs driven by changing government policy or changing consumer and network user needs can result in increases or decreases in output requirements, which could have corresponding funding implications for the remainder of the price control. For example, if an output is no longer required then the companies may no longer need to deliver it, and may also not need the funding associated with it for the second half of the price control.

1.7. Furthermore, in line with our approach to the MPR in those other sectors, we do not think there is a meaningful distinction between the introduction of new outputs and changes to existing outputs. If existing outputs are not adequately meeting the needs of consumers or network users then these outputs could be revised to address this. Alternatively, if consumer or network user needs change over the course of the price control then new/revised outputs to deal with these changing needs could be required.

## **Electricity distribution – company performance**

1.8. This section provides background on electricity distribution company performance.

1.9. We currently have two full years of performance data under RIIO-ED1, comprising information on DNOs’ financial, expenditure and output performance. We will publish a detailed report on company performance later on this year.

### **Financial performance**

1.10. We assess the overall financial performance of DNOs using a measure called the Return on Regulatory Equity (RoRE).<sup>5</sup> Latest RoRE figures are based on two years of actual data and six years of forecast data.<sup>6</sup>

1.11. RoRE figures should be compared to the cost of equity allowed at the start of the price control (shaded grey in Figure 1.1 below). The four Western Power Distribution

<sup>4</sup> [Handbook for implementing the RIIO model](#), paragraph 11.17

<sup>5</sup> RoRE is calculated post-tax and its estimation includes the use of certain regulatory assumptions, such as the assumed gearing ratio of the companies, to ensure comparability across the sector. To eliminate phasing impacts over the course of the price control, we use a mix of actual and forecast performance to calculate eight-year average returns.

<sup>6</sup> Forecast data represents the companies’ view and is subject to change.

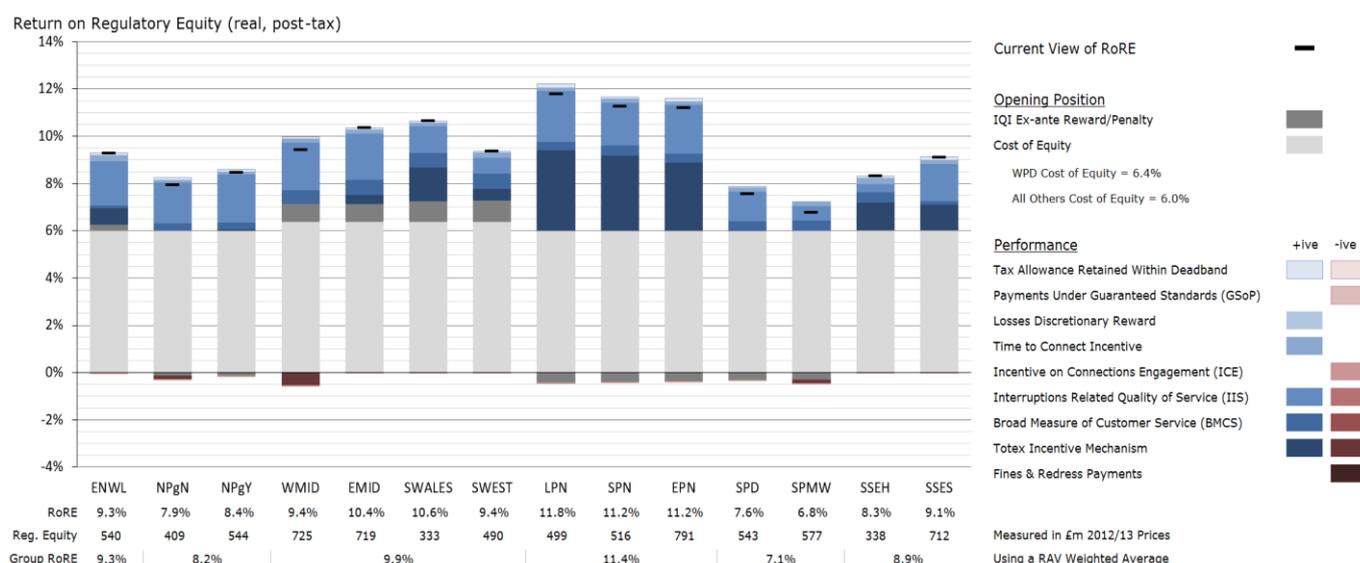
DNOs were allowed a 6.4% cost of equity as part of their fast-track settlement. The remaining 10 DNOs were allowed a cost of equity of 6.0%. Each company was also given an ex-ante reward or penalty based on business plan quality.

1.12. Forecast eight-year RoRE for individual DNOs range between 6.8% and 11.8%. At a group-level, SPEN has the lowest RoRE forecast at 7.1% and UKPN has the highest at 11.4%. No DNOs are forecasting to earn below their cost of equity.

1.13. Underspending against allowed total expenditure and incentive outperformance (shaded blue) both increase DNOs' returns, while overspending and penalties resulting from underperformance (shaded red) decrease their returns.

1.14. After the second year of RIIO-ED1, all DNOs are performing well against their outputs and the associated incentives. Performance against the Interruptions Incentive Scheme is driving returns for DNOs. For UKPN in particular, returns are also driven by the Totex Incentive Mechanism where licensees keep a proportion of the Totex underspend (see Figure 1.1 below).

**Figure 1.1: Return on Regulatory Equity (real, post-tax)**



**Expenditure performance**

1.15. For each year of the price control we set DNO cost allowances, their allowed total expenditure (Totex). This is to enable investment to maintain the existing network and accommodate a new generation of network infrastructure, and to deliver agreed outputs. DNOs must report annually their actual Totex (explaining their performance compared to the allowed Totex) and their agreed outputs. They are also required to forecast Totex performance to the end of the price control.

1.16. We set a Totex allowance of £27 billion for the full eight years of the price control. So far in RIIO-ED1 DNOs have spent £6.6 billion, an underspend of £531 million or 7%. By the end of the price control, DNOs are forecasting to underspend against

allowances by roughly £1.2 billion (5%). UKPN’s forecast shows the largest underspend of c.£911m (14%).

1.17. One of the main factors contributing to Totex underspend in RIIO-ED1 so far has been lower than expected expenditure on reinforcing the network. This is a result of load not materialising on the network, meaning that DNOs have not had to carry out reinforcement work in line with their original business plans. Totex underspend has also been driven by lower than anticipated asset replacement and business support costs. Although DNOs have underspent in the price control so far, these are predominantly deferred costs that are expected to materialise later in the period. We therefore expect DNOs’ costs to more closely align with allowed expenditure as the price control continues.

1.18. As the price control progresses we will better understand what is driving the Totex underspend: for example, savings through efficiencies and innovation, or non-delivery of work. It is too early to determine the exact driver(s) of this underspend; this will become clearer as the price control progresses, and we will consider this information when setting RIIO-ED2.

### Output performance

1.19. After the second year of the price control, DNOs continue to perform well against the six output categories: reliability and availability, connections, environment, safety, customer satisfaction and social obligations.

1.20. In the price control period so far, the number of supply interruptions and the length of time customers were off supply has fallen, as has the time taken to connect new customers to the network. There have been environmental improvements with year-on-year reductions in business carbon footprint, SF<sub>6</sub> emissions and leakage from fluid-filled cables, and all DNOs continue to be compliant with standards set by the Health and Safety Executive (HSE). There is room for DNOs to improve their performance on social obligations, as highlighted by the stakeholder engagement and consumer vulnerability incentive results. Overall, however, customer satisfaction scores have been improving, with the majority of licensees now meeting their customer satisfaction targets and just three licensees narrowly missing them in 2016-17.

1.21. Output performance has varied across DNOs, and there is room for improvement for individual DNOs, particularly against time to connect and social obligations. After the second year of RIIO-ED1, however, almost all DNOs are meeting their targets and output performance continues to improve. Table 1.1 below provides a snapshot of industry-level output performance for the year 2016-17; further detail will be available in the annual report when published.

**Table 1.1 Industry-level performance against outputs (2016-17)**

<i>Outputs</i>	<i>Performance against targets</i>	<i>RAG status</i>
Reliability and availability	Mostly all meeting	Green
Customer satisfaction	Mostly all meeting	Green
Connections	Mixed performance across DNOs	Amber
Environment	Mostly all meeting	Green
Social obligations	Mixed performance across DNOs	Amber
Safety	All meeting	Green

1.22. In response to our July Call for Evidence, a number of stakeholders raised concerns around company performance. We discuss the potential for addressing these issues as part of a (significantly) extended MPR in Chapter 3.

## **Next Steps**

### **Responding to this consultation**

1.23. We have identified a number of issues that may fall within scope. We are seeking views on:

- the issues within scope which we have considered and our initial assessment of these, as well as any we may have missed;
- the merits of a small extension of scope to cover material changes to discrete projects with clearly defined deliverables, driven by clear changes in government policy; and
- a potential significant extension of scope to capture financial and incentive performance and design.

1.24. Please send any responses to this consultation by 2 February 2018 by email to [RIIO.ED1@ofgem.gov.uk](mailto:RIIO.ED1@ofgem.gov.uk), or by post to:

Steve McMahon  
Ofgem  
Commonwealth House  
3rd Floor  
Albion Street  
Glasgow  
G1 1LH

1.25. Unless marked confidential, all responses will be published on our website. Respondents who wish to have their responses remain confidential should clearly mark the document/s to that effect and include the reasons for confidentiality.

### **Stakeholder workshops**

1.26. In our July Call for Evidence, we invited expressions of interest in potential stakeholder workshops. We received four expressions of interest. We also recognise that any potential workshop will run in parallel to RIIO-2 stakeholder engagement. As a result, we are not proposing to hold a workshop for the ED-MPR at this stage in the process.

1.27. We remain available to engage with stakeholders on a bilateral basis. Please get in touch with us directly at the email address above if you would like to discuss any of the issues raised in this consultation document.

### **Our upcoming decision**

1.28. We outlined our process in our July 2017 Call for Evidence:

Phase 1 – initial analysis and decision to proceed: we plan to issue our decision on whether or not to proceed with an MPR in Spring 2018.

Phase 2 – assessment of new output requirements: if we decide to initiate an MPR, the review will progress to the assessment phase. We will work closely with stakeholders throughout to develop policy options. We will consult in summer 2018 on the proposed changes to output requirements and issue our decision on any changes after that.

Phase 3 – implementation: following our decision on changes to output requirements, we will consult on any consequential amendments to cost allowances and any licence modifications necessary to implement the changes in winter 2018. Any changes in outputs, and associated changes in allowances, will take effect from 1 April 2019.

This timeline will also apply to changes resulting from any decision to extend the scope of MPR.

## 2. External factors potentially affecting RIIO-ED1

---

### Chapter Summary

In this chapter, we seek views from stakeholders on external factors potentially affecting RIIO-ED1, which could be considered as part of the MPR process.

**Question 1: Do you agree with the initial view we set out in this section against each individual issue?**

**Question 2: Have you identified any other issues not covered in this section that should be considered within the scope of the ED-MPR process?**

**Question 3: What are your views on a discrete extension of the ED-MPR scope as described in paragraph 2.30 (rail electrification)?**

2.1 Through our early stakeholder engagement and own internal analysis, we have identified a number of external factors potentially affecting the operation of the RIIO-ED1 price control.

2.2 These issues can be split into two categories:

- (i) issues relating to changes to outputs 1-7 that fall within the scope of MPR as set out in the Strategy Decision;
- (ii) issues relating to changes to clearly defined projects, not defined as outputs, which would require a small extension of scope (issue 8).

### Material changes in outputs resulting from changes in government policy

#### Issue 1 – Electric Vehicles

2.3 A number of stakeholders have raised the potential accelerated uptake of electric vehicles (EVs) as an issue for consideration under ED-MPR. In April 2017, the Government announced new funding for research into better batteries for EVs,<sup>7</sup> and in September 2017 the Scottish Government announced plans to phase out petrol and diesel cars by 2032 and expand the charging network for EVs.<sup>8</sup> In addition, the

---

<sup>7</sup> <https://www.gov.uk/government/news/business-secretary-announces-industrial-strategy-challenge-fund-investments>

<sup>8</sup> <http://www.gov.scot/Publications/2017/09/8468/8>

Automated and Electric Vehicles Bill announced on 18 October 2017<sup>9</sup> will require the installation of more charging points and set standards for these.

#### Initial Ofgem assessment

2.4 **Our initial view is that there is currently not enough clarity around the changes in outputs required to accommodate EVs to justify an MPR.** The issue is therefore out of scope. We also believe the existing framework enables DNOs to accommodate increased uptake of EVs, and we will reconsider the issue within the context of RIIO-2. A number of responses to our Call for Evidence also reflect this view.

### **Issue 2 – Implementation of the European Clean Energy Package<sup>10</sup>**

2.1 The European Clean Energy Package was announced in November 2016 by the European Commission. The current timeline for implementation is from late 2019, with entry into force of some aspects likely to be in 2020.

2.2 Any obligations that the new EU regulations will put on the GB DNOs are not yet quantifiable. As such introducing 'outputs' at this stage is impractical.

#### Initial Ofgem assessment

2.3 **Our initial view is that there is currently not enough clarity around any changes in outputs required to accommodate the implementation of the European Clean Energy Package to justify an MPR.** This issue is therefore out of scope.

### **Issue 3 – National Flood Resilience Review**

2.4 In September 2016, the Government published the results of its National Flood Resilience Review (NFRR), launched at the beginning of 2016.<sup>11</sup> In particular, the review assessed the resilience of key infrastructure (including DNO infrastructure).

2.5 We note that DNOs, through the Energy Networks Association (ENA), have carried out an assessment of the potential impact of the NFRR recommendations, in particular the requirement for primary sub-stations serving more than 10,000 customers to be protected to a 1 in 1,000 year-frequency event flood level.<sup>12</sup> Industry is currently in the process of updating the relevant engineering standard (ETR 138)<sup>13</sup>,

---

<sup>9</sup> <https://www.gov.uk/government/news/boost-for-electric-and-driverless-car-industry-as-government-drives-forward-green-transport-revolution>

<sup>10</sup> [Draft EU regulation on the internal market for electricity](https://www.gov.uk/government/publications/national-flood-resilience-review)

<sup>11</sup> <https://www.gov.uk/government/publications/national-flood-resilience-review>

<sup>12</sup> This refers to the chance of flooding in any one year being 0.1% (ie a 1000 to 1 chance)

<sup>13</sup>

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/551137/national-flood-resilience-review.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/551137/national-flood-resilience-review.pdf)

which currently specifies a 1 in 100 year level (ie a 1% chance of flooding in any one year).

#### Initial Ofgem assessment

2.6 We recognise that changes to ETR 138 resulting from the NFRR may require DNOs to revise their current flood protection programme. We expect DNOs to work closely and continuously with relevant stakeholders to ensure network resilience against flooding. **Our initial view is that there has not been a material change in outputs. DNOs should accommodate any required changes within their existing programmes. We therefore consider that the issue is out of scope.** This view is also reflected in a number of responses to our Call for Evidence.

### **Issue 4 – Resilience of Networks and Information Systems**

2.7 The EU Network and Information Systems (NIS) Directive was introduced in July 2016, with an implementation deadline of May 2018.<sup>14</sup> It will help ensure that organisations that own and operate essential infrastructure implement effective measures to manage the risks to the security of their network and information systems, and are well equipped to deal with an increasing number of cyber threats.

2.8 One stakeholder has raised concerns that the NIS will place new obligations on DNOs, which may fall within scope of an MPR.

#### Initial Ofgem assessment

2.9 As highlighted in the NIS pre-consultation impact assessment,<sup>15</sup> it is unlikely that the implementation of the directive will place substantive new requirements on network operators and DNOs should already be taking the right steps to protect their networks from security threats. **Our initial view is that the implementation of the NIS Directive will not require material changes to existing outputs and is therefore not within scope of an MPR.**

### **Issue 5 – Black Start**

2.10 Black Start is the process used to recover from an event that results in the full or partial shutdown of the electricity system. Power stations and network assets are started individually without an external power supply, and gradually reconnected in order to re-energise the system.

2.11 DNOs have obligations to ensure that network assets and key telecommunications systems essential to the organisation and coordination of resources,

---

<sup>14</sup> For further information on the NIS, please see <https://www.gov.uk/government/consultations/consultation-on-the-security-of-network-and-information-systems-directive>

<sup>15</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/636065/Pre-consultation\\_Impact\\_Assessment\\_-\\_Security\\_of\\_Network\\_Information\\_Systems.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/636065/Pre-consultation_Impact_Assessment_-_Security_of_Network_Information_Systems.pdf)

are resilient to a prolonged loss of supply in order to implement restoration plans under Black Start conditions.

2.12 Two stakeholders referred to potential changes that may require network assets to maintain resilience beyond the levels set out for RIIO-ED1. This work is ongoing and, as such, no clear changes to the DNOs' outputs can be made at this stage.

#### Initial Ofgem assessment

2.13 There is significant work across industry on reviewing the arrangements around Black Start to ensure they are fit for purpose, given changes in the electricity system. This could result in requirements for increased levels of resilience in some areas. **As this does not result in a change of outputs, we consider the issue to be out of scope. We believe that the RIIO framework allows us to address any impacts of this work through other means**, including the process of closing out RIIO-ED1. Where appropriate, we will consider this issue within the context of RIIO-2.

### **New outputs resulting from changes in network user and/ or consumer needs**

#### **Issue 6 – Whole-system outcomes and the transition to Distribution System Operator (DSO)**

2.14 The GB energy system is undergoing change. There is widespread recognition that electricity networks need to become more flexible, accommodating increases in distributed generation and enabling and making use of markets for flexibility services.<sup>16</sup> These developments require DNO roles to evolve in order to ensure they continue to develop and maintain efficient, coordinated and economical energy systems.

2.15 Ofgem has recently published a joint plan<sup>17</sup> with the Government that sets out the guiding principles and specific actions to support a smart, flexible energy system. Among these actions is the continued evolution of DNOs to DSO roles. As outlined in our earlier Call for Evidence on flexibility,<sup>18</sup> we expect this role to include making active use of new technologies, providers and solutions in delivering an efficient, coordinated, and economical energy system. The joint plan set out our view that the existing RIIO framework is broadly fit for this purpose, and highlighted some areas for further progress, including in approaches to managing distribution constraints and connections. We acknowledged that we would need to work with network companies to understand where any regulatory clarifications or changes may be needed, and we continue to do so.

---

<sup>16</sup> We have described flexibility as referring to the ability to modify generation and/or consumption patterns in reaction to an external signal (such as a change in price, or a message).

<sup>17</sup> [Upgrading Our Energy System: Smart Systems and Flexibility Plan July 2017](#)

<sup>18</sup> <https://www.ofgem.gov.uk/publications-and-updates/smart-flexible-energy-system-call-evidence>

2.16 DNOs are already required to develop and maintain efficient, coordinated and economical networks.<sup>19</sup> As the energy system becomes more complex, there is a greater need for coordination between network companies to ensure they continue to manage their own networks efficiently, to deliver the best outcomes for the system as a whole. We are in the process of assessing the roles of DNOs, Transmission Operators and the System Operator (SO) in this context. We also note that network companies, through the ENA, are carrying out work to identify what the evolution of roles will mean for them.<sup>20</sup>

2.17 The SO has an obligation to develop a Network Options Assessment (NOA) that considers options to ensure the system meets capacity requirements for the upcoming 10 years.<sup>21</sup> The SO has an obligation to liaise with all network companies, including DNOs, where appropriate, on possible solutions. We expect DNOs to contribute to the identification of possible solutions through the NOA process, consistent with their existing obligations to develop and maintain efficient, coordinated, and economical systems of distribution.

#### Initial Ofgem assessment

2.18 There is ongoing work to establish how DNO roles will evolve, and to ensure they consider how they coordinate with other network companies to deliver solutions with whole system benefits. **While there is some uncertainty at this stage about precisely how roles will evolve, our initial view is that this does not require material changes to outputs for ED1, and that these issues are therefore out of scope.** Some responses to our Call for Evidence also reflect this view. We will also consider these issues within the context of RIIO-2.

#### **Issue 7 – Smart Meters**

2.19 One stakeholder raised the subject of smart meters, specifically around expectations of DNOs dealing with defects arising from the rollout of smart meters. Smart meter installations are carried out by suppliers (or their contractors), and there is a service level agreement (SLA) in place with DNOs, who are required to attend where an installation requires attention. The stakeholder questioned what would happen if DNOs failed to meet the terms of the SLA, given that they have received funding for this work.

2.20 DNOs have noted that the current defect rate associated with smart meter installations is higher than the rate that was assumed when setting the price control. We specifically put in place a volume-driven uncertainty mechanism to adjust DNOs' allowances within RIIO-ED1 where volumes increase above forecasts. The rate of increase is tapered to reflect economies of scale associated with larger volumes.

2.21 We recognise that the smart meter rollout is progressing at a different rate than we expected when we set RIIO-ED1. DNOs have a responsibility to address defects as

---

<sup>19</sup> As required by section 9(1)(a) of the Electricity Act 1989.

<sup>20</sup> [ENA: Open Networks Project- Workstream products \(Workstream 3\)](#)

<sup>21</sup> This licence condition was introduced in November 2015.

they become aware of them, and the SLA provides a framework within which performance can be considered.

2.22 We are also aware that a modification<sup>22</sup> to the Distribution Connection and Use of System Agreement (DCUSA) has been raised. This modification looks to change the mechanism whereby DNOs are released from their obligations to meet the intervention SLA to one that is based on the accuracy of suppliers' smart meter rollout forecasts. This modification is currently progressing through the DCUSA modification process.

#### Initial Ofgem assessment

2.23 We will consider the efficient use of funding by DNOs as part of our continued monitoring of the price control. **Therefore, our initial view is that this is beyond the scope of MPR.**

### **Material changes resulting from changes in government policy to projects not formally identified as outputs**

#### **Issue 8 – Rail Electrification**

2.24 In 2009, the UK Government announced plans for an expansion of rail electrification schemes across England and Wales. DNO power lines sometimes cross the railway infrastructure owned and operated by Network Rail. Alterations therefore need to be made to these to enable the enhancements to the railway infrastructure required for electrification to progress, and to ensure that health and safety requirements are met.

2.25 We allowed the four fast-track licensees owned by WPD £96m<sup>23</sup> as part of their overall RIIO-ED1 price control settlement to cover the costs of diverting power lines, to enable electrification of the following rail lines:

- Paddington-Swansea
- Cardiff-Valleys
- Midland Mainline
- Birmingham-Plymouth

2.26 We also included provisions in the licence that would enable us to refund costs to customers should it be decided that rail electrification be funded by another party.<sup>24</sup>

---

<sup>22</sup> <https://www.dcusa.co.uk/Documents/DCP%20297%20Change%20Proposal%20v1%200.pdf>

<sup>23</sup> "WPD includes the costs of diverting lines £96m associated with Network Rail's electrification programme as part of its core expenditure request [...] We have concluded that we will allow the costs (which we assess to be efficient) in WPD's business plans, but, should it be decided that another party will fund them, we will include a facility in WPD's licence to remove them from the settlement." [https://www.ofgem.gov.uk/sites/default/files/docs/2013/12/assessment\\_of\\_the\\_riio-ed1\\_business\\_plans\\_0.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2013/12/assessment_of_the_riio-ed1_business_plans_0.pdf)

<sup>24</sup> Charge Restriction Condition 3K: Rail electrification.

2.27 In July 2017, the Government announced the cancellation of some rail electrification projects (Midland Main Line Phase 2 (Kettering to Nottingham and Sheffield), Cardiff-Swansea and Oxenholme-Windermere). These cancellations (excluding Oxenholme-Windermere) affect WPD's four licensees. As a result, a portion of the original allowance provided to support the delivery of rail electrification will no longer be required.

#### Initial Ofgem assessment

2.28 Rail electrification is an area where clear changes in government policy are likely to have a material impact. In response to our Call for Evidence, one stakeholder raised this issue as potentially within the scope of ED-MPR.

2.29 We recognise that rail electrification is not one of the six primary outputs or a secondary deliverable as identified at RIIO-ED1. As such, the issue is not within the scope of the ED-MPR. However, as stated in our RIIO-ED1 Strategy Decision,<sup>25</sup> the MPR is designed "to cover external factors affecting the operation of the RIIO-ED1 price control", in particular those arising from a clear change in government policy.

**2.30 We are therefore seeking views from stakeholders on the merits of a small extension of the ED-MPR scope, limited in a manner consistent with the focus of the Strategy Decision on external factors, enabling us to consider material changes to discrete projects with clearly defined deliverables, driven by clear changes in government policy.**

2.31 As mentioned in paragraph 2.26, where costs relating to rail electrification are borne by a third-party (for example Network Rail), the price control arrangements we put in place enable us to claw-back the associated unspent allowances. We therefore propose that any extension of scope as per paragraph 2.30 should be in line with this principle set out at the start of RIIO-ED1, i.e. that customers should not be charged for rail electrification costs that have not been incurred. **We invite views on whether customers should be entitled to the same refund where the costs have not materialised at all because of a clear change in government policy.**

2.32 Please see our draft impact assessment (Appendix 1) for an assessment of the potential implications of this approach. We welcome views from stakeholders on the analysis presented in the draft impact assessment.

---

<sup>25</sup> [Strategy Decision for the RIIO-ED1 price control – Uncertainty Mechanisms](#)

## 3. Additional issues considered

---

### Chapter Summary

Stakeholders have raised a number of issues that would require a significant extension of scope in order to be addressed under the ED-MPR.

**Question 1: What are your views on a potential significant extension of scope to capture financial and incentive performance and design?**

**Question 2: Do you have any views on the other issues raised in this section?**

3.1 Having engaged with stakeholders and conducted our own assessment of the price control, we have identified a number of issues that fall outside of the scope of the MPR as currently defined.

3.2 These are split as follows:

- (i) Issues with financial and incentive performance and design – addressing these under the ED-MPR would require a significant extension of scope not driven by external factors;
- (ii) Miscellaneous issues.

### Financial and incentive performance and design

3.3 There has been a recent focus on what constitutes an acceptable level of financial return for network companies.<sup>26</sup> There are multiple ways DNOs can perform well in the price control, such as: delivering their outputs for lower cost than they forecast; performing well under incentives; or through changes in macro-economic factors. As set out in Chapter 1, DNOs are performing well against their outputs and associated incentives which, along with underspend against allowances in some areas, has contributed to the level of returns achieved in the first two years of the price control. We will publish our latest view of DNO company performance for the second year of RIIO-ED1 in December 2017.

3.4 A number of stakeholders have raised concerns around current and projected company performance. In particular, stakeholders have raised concerns around:

- financial performance;
- incentive performance and design; and
- how we set key financial metrics (e.g. Cost of Equity).

---

<sup>26</sup><https://www.citizensadvice.org.uk/cymraeg/about-us/policy/policy-research-topics/consumer-policy-research/consumer-policy-research/many-happy-returns/> and [https://www.ofgem.gov.uk/system/files/docs/2017/07/open\\_letter\\_on\\_the\\_riio2\\_framework\\_12\\_july\\_final\\_version.pdf](https://www.ofgem.gov.uk/system/files/docs/2017/07/open_letter_on_the_riio2_framework_12_july_final_version.pdf)

3.5 One stakeholder also raised the subject of incentive design, with a potential need to consider new measures, for example, to account for increased Distributed Generation on the networks or to incentivise DNOs to improve short-term interruptions performance.

3.6 Another stakeholder highlighted its belief that a modification to the funding arrangements for providing support to the process of developing the charging methodology will result in DNOs benefiting through the efficiency incentive. As highlighted in our decision,<sup>27</sup> we are not aware of the need to establish different funding areas for one area of the DCUSA, but have noted that this can be kept under review if appropriate.

3.7 **Considering these issues under the ED-MPR would require a significant extension of the scope of the MPR as currently defined.** Under an extended scope, there are a number of options that could be considered. These include making changes to how incentives such as the Interruptions Incentive Scheme (IIS) or the Broad Measure of Customer Satisfaction (BMCS) operate, e.g. re-setting targets, tightening improvement factors.

3.8 We welcome stakeholder views on a significant extension of scope.

3.9 As previously noted, the RIIO-ED1 Strategy Decision stated that the MPR is not an opportunity to carry out a mini price review. Any short-term benefits must be weighed up against the longer-term risks of undermining the stability of the regulatory regime, including potential higher costs in the longer term. Our draft impact assessment (Appendix 1) highlights some of the risks associated with broadening the scope of ED-MPR. We welcome views from stakeholders on the analysis presented in the draft impact assessment.

3.10 We note stakeholder concerns around company performance and we will continue to monitor performance closely as the price control progresses. This includes triggering reopeners, where applicable, and taking action where companies fail to deliver on their outputs.

## Miscellaneous issues

### Load Indices

3.11 RIIO-ED1 includes a number of secondary deliverables to monitor how DNOs are managing their networks. The Load Indices (LIs) track the level and frequency of network asset loading, and tie a DNO's investment programme to the delivery of a particular level of loading at the end of the period. This level of loading was forecasted by the DNOs to be delivered by the schemes included in their baseline allowances.

3.12 When setting RIIO-ED1 we noted that there were elements of the LIs that would need further consideration and/or development as the price control progressed, such as

---

<sup>27</sup> [https://www.ofgem.gov.uk/system/files/docs/2017/08/dcp289\\_d.pdf](https://www.ofgem.gov.uk/system/files/docs/2017/08/dcp289_d.pdf)

the development of a Distributed Generation Index to account for load growth at substations dominated by generation. It was signalled that these elements would not be a formal part of the price control, but would be developed ready for RIIO-2.

3.13 We have not found any cause to change our position on LIs or equivalent metrics, and we have not had any feedback from stakeholders to suggest that they think this should be addressed. Therefore, we will not make any changes to the LIs or equivalent metrics, even if we decide to initiate an MPR.

### **Resetting connections targets**

3.14 Ahead of RIIO-ED1 we stated that we would, at the mid-point of the price control, reset the time to connect (TTC) targets for the DNOs.<sup>28</sup> This work would revise the target and maximum reward score, having observed the levels of data volatility and performance improvement over time.

3.15 As set out above, we intend to reset the TTC targets after four years. This will be a separate piece of work.

---

<sup>28</sup> [https://www.ofgem.gov.uk/sites/default/files/docs/2013/12/decision\\_on\\_riio-ed1\\_customer\\_service\\_and\\_connection\\_incentives.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2013/12/decision_on_riio-ed1_customer_service_and_connection_incentives.pdf)

# Appendices

---

## Index

<b>Appendix</b>	<b>Name of Appendix</b>	<b>Page Number</b>
1	Draft Impact Assessment	23
2	Feedback on this consultation	29

# Appendix 1 – Draft Impact Assessment

<b>Title: RIIO-ED1 Mid-Period Review</b>  <b>Division: Networks</b> <b>Team: RIIO-Electricity Distribution</b>  Associated documents: <a href="#">Potential RIIO-ED1 Mid-Period Review – Call for Evidence</a>  Coverage: full coverage	<b>Draft Impact Assessment (IA)</b>
	Type of measure: Price control/ Uncertainty mechanism
	Type of IA: Not Qualified under Section 5A UA 2000
	Contact for enquires: Steve McMahon 0141 354 5416 <a href="mailto:Steven.McMahon@ofgem.gov.uk">Steven.McMahon@ofgem.gov.uk</a>

**What is the problem under consideration? Why is Ofgem intervention necessary?**

Under the RIIO price control framework, the eight-year price control settlement includes a number of uncertainty mechanisms. One of these uncertainty mechanisms is the Mid-Period Review (MPR) of outputs.

The purpose of the MPR is to identify potential changes to existing outputs that network operators are expected to deliver, justified by clear changes in government policy, or whether any new outputs are required for the remainder of the price control to meet the needs of consumers and other network users. Please see paragraphs 1.3-1.7 for more information on scope.

We are now consulting on whether to launch an MPR for the RIIO-ED1 price control. This is a key milestone in the price control period and therefore Ofgem intervention is necessary. The RIIO-ED1 price control runs for the 8 years from 2015 to 2023.

As a result of our early stakeholder engagement and our own internal analysis, we have identified a number of issues which do not fall within scope. We are seeking views from stakeholders on the merits of broadening the scope of the ED-MPR in order to address these. This draft Impact Assessment (IA) provides analysis on the potential impacts.

**What are the policy objectives and intended effects including the effect on Ofgem’s Strategic Outcomes**

Our wider policy objective is to ensure that the network operators deliver outputs, which represent value for money for consumers. This is consistent with our regulatory stance on driving value in monopoly activities.

This policy objective contributes in particular to the following consumer outcomes:

- Lower bills
- Improved reliability and safety
- Better quality of service

**What are the policy options that have been considered, including any alternatives to regulation?**

We have considered the following policy options:

- Option 1: Maintaining the scope of the ED-MPR as defined in the RIIO-ED1 Strategy Decision. At this stage, we have not identified any issues that meet this definition of scope;
- Option 2: A small extension of the ED-MPR scope enabling us to consider material changes to discrete projects with clearly defined deliverables, driven by clear changes in government policy. The extension would be based on the principle that customers should not pay for costs that have not materialised. At this stage, we have identified one issue (rail electrification) which could be addressed under this approach;
- Option 3: A wider extension of scope enabling us to consider other issues relating to financial and incentive performance and design.

**Option 1 - Monetised Impacts (£m)**

Business Impact Target Qualifying Provision	Not applicable
Business Impact Target (EANDCB)	Not applicable
<b>Net Benefit to Ofgem Consumer</b>	<b>No additional net benefit beyond operation of the price control efficiency incentives (see below)</b>
<b>Wider Benefits/Costs for Society</b>	<b>Not applicable</b>

**Explain how was the Net Benefit monetised, NPV or other**

Under this policy option, any variation in company under or overspend against their original RIIO-ED1 allowances will continue to be shared with customers. Customers will benefit from a share of any underspend.

Maintaining regulatory confidence means that customers will not be at risk of higher financing costs (see “Hard to Monetise Impacts” below).

**Option 1 - Hard to Monetise Impacts**

**Describe any hard to monetised impacts, including mid-tem strategic and long-term sustainability factors following Ofgem IA guidance**

This option would preserve the original RIIO-ED1 settlement, maintaining incentives on companies (in particular efficiency incentives under the Totex Incentive Mechanism – TIM), as well as regulatory confidence. This would be in line with our Regulatory Stances, in particular *Regulatory Stance: 2 Driving value in monopoly activities through competition and incentive regulation*.

**Key Assumptions/sensitivities/risks**

- To date, we have not identified any issues that meet the existing scope of the ED-MPR. This view is subject to consultation. Our analysis is therefore based on the assumption that there will be no ED-MPR if we proceed with Option 1.

<b>Will the policy be reviewed?</b>	<b>This policy will be reviewed in Spring 2018</b> We are currently consulting on our policy options. The process will end with a decision in Spring 2018, taking effect from 1 April 2019. This decision will stand until the end of the RIIO-ED1 price control period (31 March 2023), after which the new price control will take effect.
<b>Is this proposal in scope of the Public Sector Equality Duty?</b>	<b>No</b>

**Option 2 - Monetised Impacts (£m)**

Business Impact Target Qualifying Provision	Not Applicable
Business Impact Target (EANDCB)	Not Applicable
<b>Net Benefit to Ofgem Consumer</b>	<b>Not quantified. See below</b>
<b>Wider Benefits/Costs for Society</b>	<b>Not Applicable</b>

**Explain how was the Net Benefit monetised, NPV or other**

As part of their overall price control settlement, we allowed £96m (2012/13 prices) for the four WPD licensees to undertake diversion works required to enable rail electrification in their licence areas. As a result of the cancellation of a number of rail electrification projects, the four WPD licensees are currently estimating to spend a lot less (c. £75.5m in 2012/13 prices currently estimated as no longer required). We note that under the TIM, the benefits of any underspend are shared with customers. How much of any underspend relating to rail electrification is returned to customers will depend on the actual overall total under or overspend of each affected licensee at the end RIIO-ED1.

We have not quantified any costs such as those related to regulatory risk/financing costs at this stage.

## Option 2 - Hard to Monetise Impacts

<p><b>Describe any hard to monetised impacts, including mid-tem strategic and long-term sustainability factors following Ofgem IA guidance</b></p> <p>Under this option, customers will benefit from a short-term reduction in their bills because of allowances being reduced. However, this option may also have a negative impact on regulatory confidence, longer term financing costs, and on how companies react to incentives. Given that the proposed extension of scope is a discrete one, and is linked to clear changes in government policy (one of the key criteria under the ED-MPR), it is unclear whether this impact is likely to be material.</p>
---

<p><b>Key Assumptions/sensitivities/risks</b></p> <ul style="list-style-type: none"> <li>To date, we have only identified one issue which could be addressed under Option 2 (rail electrification). This is subject to consultation. Our analysis is therefore based on the assumption that rail electrification is the only issue which would fall under Option 2.</li> <li>We have also assumed that the affected DNOs will not incur any further costs relating to rail electrification projects which have been cancelled.</li> </ul>
---

<p><b>Will the policy be reviewed?</b></p>	<p><b>This policy will be reviewed in Spring 2018</b> We are currently consulting on our policy options. The process will end with a decision in Spring 2018, taking effect from 1 April 2019. This decision will stand until the end of the RIIO-ED1 price control period (31 March 2023), after which new the price control will take effect.</p>
<p><b>Is this proposal in scope of the Public Sector Equality Duty?</b></p>	<p><b>No</b></p>

## Option 3 - Monetised Impacts (£m)

Business Impact Target Qualifying Provision	Not Applicable
Business Impact Target (EANDCB)	Not Applicable
<b>Net Benefit to Ofgem Consumer</b>	<b>Benefit would depend on option(s) pursued – see below</b>
<b>Wider Benefits/Costs for Society</b>	<b>Not Applicable</b>

<p><b>Explain how was the Net Benefit monetised, NPV or other</b></p> <p>Broadening the scope to include other issues could cover many aspects of the price control – for example, addressing financial outperformance by making changes to incentives or to the DNOs’ baseline allowances, or by amending key price control parameters. Determining the net benefit to consumers is a complex exercise and this would depend on the option(s) pursued. At this stage, we have not explored any specific option(s).</p>
---

### Option 3 - Hard to Monetise Impacts

<p><b>Describe any hard to monetised impacts, including mid-tem strategic and long-term sustainability factors following Ofgem IA guidance</b></p> <p>The Impact Assessment accompanying our <a href="#">RIIO-T1 and RIIO-GD1 MPR Decision</a> highlights the key risks associated with significantly broadening the scope of MPR. These include:</p> <ul style="list-style-type: none"> <li>• Negative impact on regulatory confidence, including future financing costs;</li> <li>• Impact on investment (with investment less likely to go ahead);</li> <li>• Reduced drive to deliver efficiencies that are in consumer interest.</li> </ul> <p>These longer-term risks need to be weighed up against the shorter-term benefits to consumers.</p>
---

<p><b>Key Assumptions/sensitivities/risks</b></p> <ul style="list-style-type: none"> <li>• Our analysis is based on the assumption that significantly broadening the scope of the ED-MPR will have an impact on financing costs going forward and into the next price control.</li> </ul>
---

<p><b>Will the policy be reviewed?</b></p>	<p><b>This policy will be reviewed in Spring 2018</b> We are currently consulting on our policy options. The process will end with a decision in Spring 2018, taking effect from 1 April 2019. This decision will stand until the end of the RIIO-ED1 price control period (31 March 2023), after which the new price control will take effect.</p>
<p><b>Is this proposal in scope of the Public Sector Equality Duty?</b></p>	<p><b>No</b></p>

### Summary Table for all options

Summary of options	Main effects on Ofgem outcomes	Benefits	Costs	Key Considerations (Risks, assumptions, distributional impacts etc.)
Option 1	<ul style="list-style-type: none"> <li>• Lower bills</li> <li>• Improved reliability and safety</li> <li>• Better quality of service</li> </ul>	No additional net benefit beyond the 'in-built' price control efficiency sharing incentive.	No additional costs identified as option implies standard monitoring and implementation of the price control.	Approach clearly in line with RIIO-ED1 Strategy Decision.
Option 2	<ul style="list-style-type: none"> <li>• Lower bills</li> <li>• Improved reliability and safety</li> <li>• Better quality of service</li> </ul>	Difficult to quantify at this stage. Short-term benefits to consumers would need to be balanced against	Unclear at this stage.	Affected DNOs not likely to incur further expenditure on diversion activity on the cancelled rail electrification projects.

Potential RIIO-ED1 Mid-Period Review – Open Letter Consultation

		negative longer-term impact.		Minor risk to regulatory confidence though impact may not be material.
Option 3	<ul style="list-style-type: none"> <li>• Lower bills</li> <li>• Improved reliability and safety</li> <li>• Better quality of service</li> </ul>	Short-term benefits will depend on option(s) pursued. This would need to be balanced against negative longer-term impact.	Unclear at this stage what the broadened scope will include.	Risk to regulatory confidence. Difficult to quantify benefits for consumers at this stage.

## Appendix 2 - Feedback on this consultation

---

We want to hear from anyone interested in this document. Send your response to the person or team named at the top of the front page.

We've asked for your feedback in each of the questions throughout it. Please respond to each one as fully as you can.

Unless you mark your response confidential, we'll publish it on our website, [www.ofgem.gov.uk](http://www.ofgem.gov.uk), and put it in our library. You can ask us to keep your response confidential, and we'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004. If you want us to keep your response confidential, you should clearly mark your response to that effect and include reasons.

If the information you give in your response contains personal data under the Data Protection Act 1998, the Gas and Electricity Markets Authority will be the data controller. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. If you are including any confidential material in your response, please put it in the appendices.

### **General feedback**

We believe that consultation is at the heart of good policy development. We are keen to hear your comments about how we've conducted this consultation. We'd also like to get your answers to these questions:

1. Do you have any comments about the overall process of this consultation?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6. Any further comments?

Please send your comments to [stakeholders@ofgem.gov.uk](mailto:stakeholders@ofgem.gov.uk)