



Promoting choice and value
for all gas and electricity customers

RIIO|ED1

Strategy consultation for the RIIO-ED1 electricity distribution price control

Impact assessment

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 better value for money 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

This impact assessment (IA) follows the IA that we published alongside our RPI-X@20 recommendations consultation in which we examined the potential benefits and risks associated with the application of the RIIO model. This IA considers these issues as well as the benefits and risks that will result from implementation of the proposals developed to date under RIIO-ED1, as set out in our Strategy Consultation. This is compared against the baseline of undertaking a price control in electricity distribution using the existing RPI-X framework used in DPCR5.

Context

Section 5A of the Utilities Act 2000 places a duty on the Gas and Electricity Markets Authority (the Authority) to carry out an impact assessment (IA) for any proposal that it considers in carrying out its functions that it believes to be important. We note that, in this context, the definition of 'important' is interpreted as a proposal which would involve a major change in our activities or significantly impact industry participants, the general public or the environment. We think that implementation of a new price control falls within these criteria. This is particularly the case given that RIIO-ED1 represents the first time the RIIO framework has been applied in electricity distribution. To understand the impact that the new price control and adoption of the RIIO principles will have for electricity distribution consumers, we think it is prudent to carry out an IA.

As part of the RPI-X@20 review, we undertook an IA regarding the introduction of the RIIO model. In this document we update the thinking that was included within the RPI-X@20 IA to reflect the proposals that we have developed to date for RIIO-ED1. As such, this focuses particularly on potential benefits and risks/costs that at this stage we foresee may arise as a result of these policy proposals. This IA is published alongside our Strategy Consultation documents which provide a detailed overview of the proposals that we have developed for RIIO-ED1.

We note that this is an early stage in the process to be undertaking an IA. However, consistent with the principles of better regulation and recognising that several of the key decisions regarding RIIO-ED1 will be taken as part of our February 2012 Strategy Decision documents, we consider an IA to be appropriate at this point in the process. In particular, it will provide transparency to the distribution network operators (DNOs) on the process that we intend to follow for the development of their business plans.

Associated documents

Strategy consultation for RIIO-ED1 - Overview

<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1SConOverview.pdf>

Links to supplementary annexes

- Strategy consultation for RIIO-ED1 - Outputs, incentives and innovation
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1SConOutputsIncentives.pdf>
- Strategy consultation for RIIO-ED1 - Business plans and proportionate treatment
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1SConBusinessPlans.pdf>
- Strategy consultation for RIIO-ED1 - Uncertainty mechanisms
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1SConUncertaintyMechanisms.pdf>
- Strategy consultation for RIIO-ED1 - Financial issues
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1SConFinancialIssues.pdf>
- Strategy consultation for RIIO-ED1 - Impact assessment
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1SConImpactAssessment.pdf>
- Strategy consultation for RIIO-ED1 - Tools for cost assessment
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1SConCostAssessment.pdf>
- Strategy consultation for RIIO-ED1 - Reliability and safety
<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/consultations/Documents1/RIIOED1SConReliabilitySafety.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

- 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

Contents

Executive Summary	5
1. Key issues and objectives	7
Development of the RIIO model	8
Options	9
2. Impact of RIIO-ED1 proposals	11
Overview of the outputs-led regime	11
Impacts on consumers	13
Impacts on competition	21
Impacts on sustainable development	22
Impacts on health and safety	24
3. Risks and unintended consequences	25
Low carbon uncertainty	26
Non-delivery of the primary outputs	26
Over/under estimation of allowances	27
Increased regulatory risk	28
Risk that elements of the regime are developed incorrectly	30
4. Post implementation review	31
Other impacts, costs and benefits	31
Post-implementation monitoring and review	32
5. Conclusion	34
Appendices	35
Appendix 1 - Consultation Response and Questions	36

Executive Summary

RIIO-ED1 is the first time we are applying the principles of the RIIO model¹ to electricity distribution. We are in the process of completing the RIIO-T1 and GD1 reviews, and are incorporating lessons learned from these reviews into the design and planning for RIIO-ED1.

This document complements our Strategy Consultation documents by providing an overview of the key changes that will be implemented under RIIO-ED1 and the impact that these changes will have in terms of both benefits and risks. We note that we are at early stage in the process to be undertaking an impact assessment (IA). However, consistent with the principles of better regulation and recognising that many of the key decisions regarding RIIO-ED1 will be taken as part of our February 2013 Strategy Decision, we consider an IA to be appropriate at this point in the process. This will provide clarity to the distribution network operators (DNOs) regarding our thinking and how this should influence their business plans.

Given the early stage at which we are carrying out this impact assessment, it is undertaken at a high level and is largely qualitative. Where appropriate we will carry out further refinements of this IA over the course of the review.

Our Strategy Consultation sets out a suite of proposals designed to achieve the overarching RIIO objective, which is to encourage energy network companies to:

- play a full role in the delivery of a sustainable energy sector
- deliver long-term value for money network services for existing and future consumers.

DNOs are likely to be required to undertake significant investment in coming years to facilitate the transition to a sustainable energy sector. Our proposals are designed to ensure that companies can finance the required investment in a timely and efficient way, and are incentivised to deliver the required level of service at value for money for consumers.

In this IA, we seek to assess the impacts and risks that would result from implementation of the suite of measures set out in our Strategy Consultation. We assess these impacts and risks against the baseline of undertaking a price control in electricity distribution based on the existing RPI-X framework used in the current electricity distribution price control, DPCR5. This annex builds upon the discussion of impacts in the main documents of this consultation and should not be viewed as a standalone impact assessment. Instead, it should be read in conjunction with the remainder of this consultation.

¹ For more information on the RIIO framework, please see 'Handbook for implementing the RIIO model' available at: <http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf>

Our assessment highlights that there are potential positive impacts in a number of areas. We can categorise as follows.

- **Impacts on consumers:** Our proposals for RIIO-ED1 across a range of outputs are intended to deliver benefits to consumers. From the key consumer issue of reliability, the quality of customer service, to how the DNOs should consider vulnerable consumers and those in fuel poverty. However, we think that the biggest impact on consumers will be linked to the elements of the RIIO model that help to manage any increase in network charges that will likely result from the price control review and facilitating the transition to a lower carbon economy. The RIIO model will encourage the DNOs to consider the impacts of their expenditure decisions over a longer timeframe, which is likely to lead to more efficient costs. We recognise that longer-term price controls are likely to lead to additional uncertainty but we are confident that the mid-period review and uncertainty mechanisms that we are proposing will address these concerns. The ability to take a proportionate approach to the assessment of business plans will also have positive impacts by allowing us and the DNOs to focus our efforts in the areas where they are most likely to deliver benefits. We anticipate further benefits from the regime as a result of the transparency that investors will have with respect to financeability arrangements.
- **Impacts on sustainable development:** We anticipate the outputs-led regime, which is linked to the overriding objectives of the framework, will have significant benefits for sustainable development. The DNOs will need to be able to connect new low carbon loads (such as heat pumps, solar pV and electric vehicles) in an appropriate time, at appropriate cost, without causing network problems. We believe this behaviour will be driven by a coherent and balanced package of outputs and incentives, alongside a combination of ex ante assessment and appropriate uncertainty mechanisms. Our innovation proposals will encourage the DNOs to further innovate and trial solutions to better accommodate the take-up of low carbon technologies and the connection of generation, particularly using of smart grids solutions and customer response.

We recognise that there are a number of risks associated with the RIIO model, which could reduce the level of benefits achieved under RIIO-ED1. These include the potential for overspends in delivery, the potential for non-delivery of outputs, the possibility of increased regulatory risk due to the new financeability principles and the mid-period review as well as the possibility that certain elements of the framework may be incorrectly defined. We have implemented a number of mechanisms to mitigate these risks and do not consider that they pose a significant threat to the achievement of the overriding RIIO objectives.

We welcome stakeholder views on the assessment that we have undertaken in this document and whether this represents a realistic analysis of the impacts and risks that could be observed through implementation of RIIO-ED1.

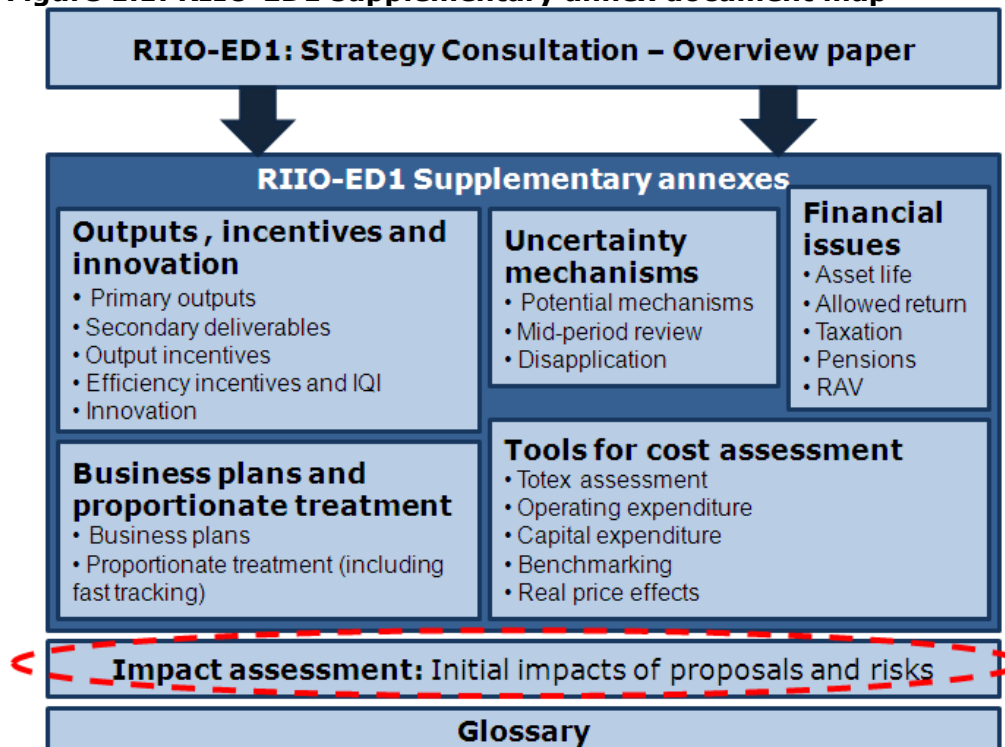
1. Key issues and objectives

Chapter Summary

This chapter outlines the role that this IA has within the overall consultation that we are carrying out on RIIO-ED1. It provides an overview of the RIIO model, including its objectives and the elements of the framework that will help to deliver against these aims. It also outlines the options that are available to us to consider in terms of the future regulatory framework and sets out the approach that we have taken in carrying out this IA.

- 1.1. The electricity distribution price control, RIIO-ED1, will be the first review for electricity distribution to use the new RIIO model. We are consulting on the strategy for the price control review. This supplementary annex to the main consultation documents sets out our current thinking with respect to the impacts and potential risks associated with implementation of the proposals set out in our Strategy Consultation documents. Figure 1.1 below provides a map of the documents published as part of the consultation.

Figure 1.1: RIIO-ED1 supplementary annex document map*



* Document links can be found in the Associated documents section of this paper

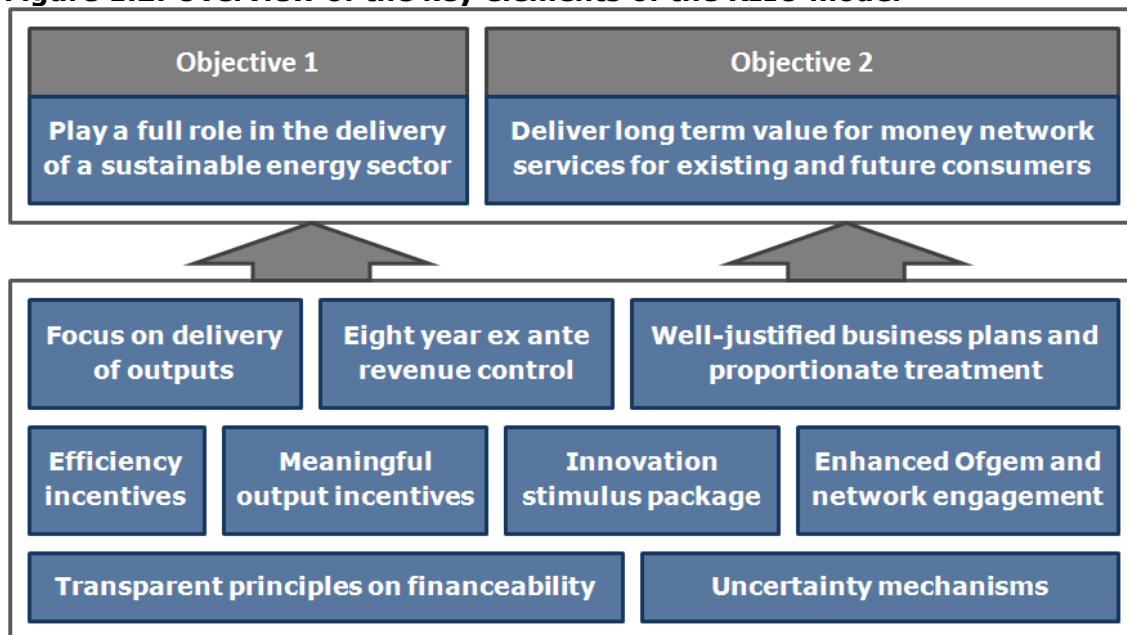
Development of the RIIO model

- 1.2. In October 2010, we completed the RPI-X@20 project, in which we undertook a detailed review of energy network regulation. The review looked at how best to regulate energy network companies to enable them to meet the challenges and opportunities of delivering the networks required for a sustainable, low carbon energy sector at value for money.
- 1.3. The main driver of the RPI-X@20 review was the need to ensure that the regulatory framework remained fit-for-purpose particularly in light of the challenges that the network companies would face in facilitating the transition to a sustainable energy sector. During RPI-X@20, we undertook extensive engagement with a range of stakeholders to ensure that we had a solid understanding of the way that the RPI-X regime had performed since implementation. We also sought to identify potential challenges that network companies would face in the future and determine the form that the regulatory regime should take to allow them to effectively address these.
- 1.4. The outcome of this process was the development of the RIIO model, under which, **R**evue will be set to deliver strong **I**ncentives, **I**nnovation and **O**utputs. To provide transparency regarding our expectations of the network companies, we defined clear objectives for the framework. These objectives are aligned with our principal objective and wider statutory duties. As such, the objectives specify that the framework should be designed and implemented to encourage energy network companies to:
 - play a full role in the delivery of a sustainable energy sector
 - deliver long-term value for money network services for existing and future consumers.
- 1.5. The RIIO framework contains a number of mechanisms designed to facilitate the delivery of these objectives. As Figure 1.2 below illustrates the RIIO framework is an evolution of the RPI-X regime and builds on the successful elements of this framework, particularly some of the innovative aspects that were implemented as part of the current electricity distribution price control, DPCR5.
- 1.6. The RIIO framework maintains an ex ante building block approach that is informed by business plans and stakeholder engagement. It builds on the success of the low carbon networks (LCN) Fund developed during DPCR5 with the introduction of an innovation stimulus package across the electricity transmission and distribution sectors. The framework also progresses further the successes achieved with respect to the development of outputs during DPCR5 and, in this respect, can be considered outputs-led.
- 1.7. The outputs-led regime is complemented by the application of strong incentives to mimic the effects of competitive markets and encourage efficient delivery. To ensure that the outputs developed under the regime reflect the

needs of network users and consumers the framework places a strong emphasis on stakeholder engagement, building on the progress made in these areas in the past.

- 1.8. RIIO includes a strong focus on the longer term to ensure value for money for existing and future consumers and this is underpinned by the use of long-term, well-justified business plans as well as the extension of the price control period from five to eight years. To provide clarity on the approach that we will take to determining the financial package, the RIIO framework incorporates a set of transparent financeability principles. A more detailed explanation of the way that the RIIO model works is contained within the RIIO handbook.²

Figure 1.2: Overview of the key elements of the RIIO model



Options

1.9. In 2010, the Authority published its decision to implement a new regulatory framework using the package of measures contained within the RIIO model. As the Authority has already decided to apply the RIIO framework to future price control reviews, this IA examines the impacts and risks associated with the options available to us for implementation of the regime as part of the electricity distribution price control (RIIO-ED1). In the majority of cases the option will be to either:

- implement the new regulatory regime in line with the RIIO principles

² Handbook for implementing the RIIO model, available from:
<http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf>

- undertake a price control using the existing RPI-X regimes as employed in DPCR5.
- 1.10. In assessing the impact that our proposed approach to implementation of the various elements of the RIIO package may have, we compare the potential outcomes against the outcomes that may be observed in the event that the existing RPI-X regimes employed in DPCR5 were retained. This builds on the IA that we undertook as part of the RPI-X@20 review, which examined the benefits and costs/risks that we anticipated would result from implementation of the RIIO framework. This IA takes the analysis one step further by looking at the impacts and risks that would result from implementation of the specific proposals developed for RIIO-ED1.
- 1.11. In undertaking this IA, we have adhered to a number of additional principles to assess the available options for implementation of the RIIO framework.
- **Taking the package as a whole:** When considering the impact of implementing the new regime under the RIIO-ED1 price control review, we have sought to focus on the package as a whole, taking account of interactions between the various elements of the framework.
 - **Qualitative assessment:** To provide transparency regarding our thinking, we have initiated this IA early in the process of the price controls. The nature of our proposals at this stage of the price control reviews, as set out in our Strategy Consultation documents, means that it is difficult to quantify the costs and benefits associated with them. This is largely due to the fact that we are still consulting on the options to be introduced as part of our Strategy Decision in February 2013 and will not receive the DNOs' business plans until later in the process. Therefore, the IA is undertaken at a high level and is largely qualitative at this stage. Where appropriate we will carry out further IAs over the course of the review.

Stakeholder views

- 1.12. As part of RIIO's enhanced engagement proposals we have sought to actively engage with a range of stakeholders including DNOs, network users, consumer representatives, environmental groups, and other interested parties during the development of the RIIO-ED1 proposals. We value the input of these stakeholder groups and welcome stakeholder input on the issues set out in this IA. We welcome views on this IA by 23 November 2012.

2. Impact of RIIO-ED1 proposals

Chapter Summary

This chapter provides an overview of what we consider at this stage to be the potential impacts of the measures being proposed as part of the Strategy Consultation for RIIO-ED1.

Question 1: Have we correctly identified the impacts that RIIO-ED1 will have on consumers, competition, sustainable development and safety?

Question 2: Are there any additional impacts that RIIO-ED1 may have?

Question 3: Are there any specific areas in which we should seek to quantify the impacts of implementing RIIO-ED1 in a later IA?

2.1. We think that the RIIO framework will provide numerous benefits for consumers by more effectively facilitating the delivery of the objectives set out in Chapter 1 and thereby ensuring value for money for consumers as well as facilitating the delivery of a sustainable energy sector. We have structured this chapter according to the impacts that would be observed in a number of key areas from the implementation of RIIO-ED1 using the RIIO principles. The potential impacts are grouped according to the following areas.

- impacts on consumers
- impacts on competition
- impacts on sustainable development
- impacts on health and safety.

2.2. As set out in Chapter 1, during RPI-X@20, we published an IA examining the benefits and costs/risks that could arise from implementation of the RIIO framework. We consider that many of the benefits identified in the RPI-X@20 IA are applicable in the context of RIIO-ED1. As such, some sections of this chapter begin with an overview of these benefits. The sections then go on to assess additional impacts that may be observed as a result of implementation of the specific proposals included in RIIO-ED1.

2.3. Since many of the benefits arise from the RIIO outputs-led framework, we start this chapter with an overview of how this framework operates.

Overview of the outputs-led regime

2.4. The key drivers of the RIIO framework are the objectives that we outlined in Chapter 1. These objectives provide a high level steer to the network companies about our expectations with respect to their performance. They are translated into an outputs led-regime through the development of the following elements.

- **A set of output categories:** The output categories capture the key areas within which consumers expect the delivery of high quality services in line with the objectives set out in Chapter 1. The output categories are: customer satisfaction, safety, reliability and availability, conditions for connections, environmental impacts and social obligations.
- **Primary outputs within these categories:** These provide measures against which we can monitor performance in each of the output categories during the price control.
- **Secondary deliverables (where needed):** These are indicators of performance which may be used in support of the DNOs' required primary outputs. For example, the reliability of the networks directly impact consumers whereas asset health is a factor impacting reliability.

Key benefits identified in the RPI-X@20 IA

2.5. One of the clear benefits that we identified within the RPI-X@20 IA was that the objectives of the regime would ensure that the network companies remained focused on the delivery of value for money to consumers whilst also considering the role they should play in the delivery of a sustainable energy sector. Where these objectives were effectively translated into outputs, we considered that a number of benefits would be achieved. The key benefits are outlined in Table 2.1 below.

Table 2.1: Benefits from delivery of outputs identified in the RPI-X@20 IA

Element of the regime	Benefit
Output categories	<ul style="list-style-type: none"> • Provides transparency about the areas in which companies should ensure delivery.
Primary outputs	<ul style="list-style-type: none"> • Allows us to monitor delivery within each of the output categories. • Can be developed to reflect consumer views therefore helping to deliver value for money network services.

2.6. We consider that these benefits remain applicable in the context of the development of RIIO-ED1 using the principles of the RIIO model.

2.7. During RPI-X@20, we consulted on the output categories that could be included within the outputs-led regime. Respondents to these consultations were supportive of the categories that we had proposed and limited concerns were expressed with respect to the proposed structure.

2.8. In RIIO-ED1, our focus has been on developing a cohesive package of primary outputs and secondary deliverables that are appropriate in each of the output categories. While the primary outputs will provide clarity on the performance of DNOs in delivering against the overriding objectives during the current period, the secondary deliverables will ensure that we retain focus on the need to deliver against primary outputs in future periods. Where secondary deliverables are identified for delivery during the current period, this will ensure that the DNOs engage in actions now which will ensure the efficient delivery of outputs in the future. The only limitation to this approach is that, given changing circumstances, it may not always

be possible to identify where actions are needed now to ensure the delivery of primary outputs in the future. We propose to mitigate this risk through the uncertainty mechanisms and mid-period review discussed below. The following section provides an overview of the approach that we have taken in developing the suite of primary outputs and secondary deliverables.

2.9. We have developed our proposed outputs and secondary deliverables in consultation with interested stakeholders including through the Price Control Review Forum, the policy specific working groups and the Consumer Challenge Group. We believe this enhanced stakeholder engagement will ensure that the outputs will ultimately deliver the benefits identified in the high level RIIO model, outlined in Table 2.1 above. This consultation also forms part of this engagement and should highlight any potential concerns with our proposed suite of measures and allow us to reach a final policy position on a comprehensive set of outputs in time for the publication of our February strategy decision.

Impacts on consumers

2.10. We consider there are three main areas in which implementation of the proposals for RIIO-ED1 will positively impact on consumers.

- The first is that the proposals should ensure the delivery of network services at value for money for consumers. Considering that consumers are likely to see an increase in the level of their network charges, given that network expenditure is likely to increase in future years, it is important that these increases are managed to the best extent possible.
- The second is that there will be greater opportunities for consumers to engage in the price control process and influence the final form that the price control settlement takes. This should help to ensure that the price control better reflects their needs and therefore delivers in line with their expectations.
- This enhanced engagement is reflected in our proposed package of outputs and incentives that will ensure that the DNOs are responsive to customers' needs.

2.11. Each of these impacts is discussed in turn in the following section.

Management of increases in network charges

One of the biggest challenge facing DNOs will be to maintain security of supply whilst facilitating the transition to a low carbon economy. Significant expenditure may be needed. It is therefore important that DNOs can show consumers that they are getting value for money and that charges are contained.

2.12. We are confident that the introduction of the RIIO model will, over the long-term, deliver lower average network charges for consumers than if we continued to use RPI-X regulation. This is largely due to the stronger incentives that RIIO places on the network companies to deliver at long-term value for money for consumers, but also because the RIIO framework is designed to encourage network companies

to do more to deliver a sustainable energy sector. These value for money benefits can be grouped according to the following areas in which they arise:

- focus on the longer term
 - uncertainty mechanisms
 - mid-period review
- IQI and the efficiency incentive rate
- innovation
- proportionate treatment and fast-tracking
- financeability proposals.

2.13. The following sections provide an overview of the areas, identifying those benefits that were included within the RPI-X@20 IA as well as the specific benefits that are likely to arise from the development of policy proposals for RIIO-ED1.

Focus on the longer term

2.14. Under RIIO, the length of the price control period has been extended from five to eight years to encourage network companies to think on a longer-term basis. There are various other aspects of the framework which also encourage a longer-term focus. As a result network companies would be encouraged to consider the implications that their proposed expenditure for the coming period would have for required expenditure and associated efficiency beyond this control period. Table 2.2 below provides an overview of the areas that we identified, in the RPI-X@20 IA, where we think the regulatory framework will contribute to lower network charges.

Table 2.2: Benefits from longer term focus identified in the RPI-X@20 IA

Element of the regime	Benefit
Business plans	<ul style="list-style-type: none"> • Place a requirement on the network companies to complete business plans that consider expenditure needed beyond the coming control period.
Secondary deliverables	<ul style="list-style-type: none"> • Encourage network companies to take actions that bring benefits in future price control periods (eg enable future delivery at lower costs).
Efficiency incentives	<ul style="list-style-type: none"> • Encourage network companies to consider the likely efficient cost solutions over the longer term.

2.15. The RIIO decision sets out that the business plan needs to reflect the longer-term context both in terms of what is to be delivered and how. Whilst we have provided updated business plan guidance in this consultation, the updates are around presentation rather than the key assessment criteria, which remain unchanged. We would expect the longer-term focus provided by the secondary deliverables and business plan guidance to have a positive effect on the way the DNOs run their networks, making them more cost efficient over a longer time horizon and potentially exposing efficiencies in delivery. Where these savings are passed onto consumers through the symmetric efficiency incentives, this would reduce the costs that they face.

2.16. A clear risk associated with the development of a longer-term control period for RIIO-ED1 is that the level of uncertainty regarding expenditure requirements and outputs needed over the course of the control is likely to be greater given the potential for conditions to change during the price control period. We have sought to address concerns regarding uncertainty by introducing a suite of uncertainty mechanisms to manage risk between network companies and consumers, including both general uncertainty mechanisms and a mid-period review of output requirements. Each of these mechanisms is discussed in turn below.

Uncertainty mechanisms

2.17. There is significant uncertainty with respect to the way that the electricity distribution networks will need to develop in the future particularly given the role that they will have to play in facilitating the transition to a sustainable energy sector. As set out above, this risk is increased under the RIIO model where the length of the price control has been extended from five to eight years. To guard against this uncertainty, we propose to introduce provisions within RIIO-ED1 to allow uncertainty mechanisms to be used in certain circumstances. The presence of these mechanisms can have a number of positive impacts in terms of delivering lower average network charges for consumers. For example, by reducing the risks associated with uncertainty that could be faced over the course of the price control, they could contribute to a lower cost of capital.

2.18. We recognise that the presence of uncertainty mechanisms within RIIO-ED1 could also have risks. In this respect, they could undermine efficiency incentives and increase complexity. We have identified potential uncertainty mechanisms as part of our Strategy Consultation, and have considered the principles set out in the RIIO handbook as part of an initial view on the needs for, and design of, these mechanisms. Companies will have an opportunity to make the case for these and other mechanisms as part of their business plans. Before including any mechanisms within the price control arrangements, we will need to be satisfied that these are in the interests of consumers, taking account of both the potential downsides and the RIIO principles. This should ensure that uncertainty mechanisms are only deployed where network companies are unable to manage the uncertainty they face whilst preserving the ability of the network companies to finance their businesses and deliver value for money for consumers.

2.19. The RIIO framework also includes provisions to allow a mid-period review of outputs to take place to ensure that they remain applicable for the duration of the price control period. We have explicitly considered any risks arising from this review in Chapter 3.

IQI and efficiency incentive rate

2.20. The information quality incentive (IQI) was introduced in the fourth electricity distribution price control review (DPCR4) and refined as part of the current price control (DPCR5).

2.21. The IQI is used to set the ex ante efficiency incentive rate that the DNOs will face over the course of the price control. It is determined individually for each DNO based on the expenditure requirements that they submit within their business plans and the extent to which these costs differ from our forecasts of 'efficient' expenditure that would be required over the course of the control period to deliver specified outputs. In effect, the efficiency incentive rate for a company will be based on the ratio between its expenditure forecast and our assessment of its expenditure requirements as well as the specific parameters of the IQI.

2.22. Where the IQI operates effectively, it provides incentives to the DNOs to submit more accurate expenditure forecasts within their business plans due to the potential to achieve a more favourable efficiency incentive rate and an income reward. This could ultimately deliver benefits for consumers by ensuring the allowances approved for DNOs represent value for money.

2.23. Depending on the efficiency incentive rate they were subject to, this would mean DNOs would be able to retain a percentage of any efficiency savings achieved but would be exposed to an equivalent proportion of any over-expenditure.

2.24. The efficiency incentive rate should create strong incentives for the DNOs to expose efficiency savings given the positive impact that this could have on their revenues. Consumers could also gain given that a proportion of the resulting savings should also be passed through to them. In addition, the strong efficiency incentive rate should create incentives on the DNOs to avoid overspend given the significant proportion of these costs that they would face.

Innovation

2.25. In the RPI-X@20 IA, we set out that there could be a number of benefits for value for money as a result of the elements of the RIIO regime that help to encourage innovation. One such element is the innovation stimulus package. As part of RIIO-T1 and GD1 we have developed the electricity NIC, an annual competition for innovation funding, which will apply to electricity transmission and distribution. In RIIO-T1 we set the amount of funding available for the first two years of the T1 price control period, during which only the transmission companies will be competing for funding. In the RIIO-T1 'Initial strategy consultation documents' we set out a specific IA related to the innovation stimulus package which describes the potential impacts and benefits arising from our proposals.³ We signalled that we would consult

³ <http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO->

on a revised amount for transmission and distribution companies (starting in 2015) as part of RIIO-ED1.

Proportionate treatment and fast-tracking

2.26. A key tool in the implementation of the RIIO framework is proportionate treatment. We anticipate that this will help us to deliver benefits for consumers by allowing us to focus our regulatory scrutiny where it is likely to add most value.

2.27. The scope for proportionate treatment and the potential to be fast-tracked will provide DNOs with incentives to step up to the challenge of submitting realistic and well-justified business plans. Information should be revealed from the well-justified plans of fast-tracked companies to inform our scrutiny of less well-justified plans.

2.28. We recognise that the adoption of a proportionate approach will not be straightforward. To assist DNOs, we have produced guidance that sets out the criteria with which business plans would need to be compliant to be considered well-justified. The criteria are the same as we set out for RIIO-T1 and GD1, however we have provided more clarification on the questions that will be considered as part of each criterion. Using this guidance, combined with available comparative data and evidence regarding the performance of DNOs with respect to the delivery of outputs, should reduce the risk of insufficient scrutiny of a poorly justified business plan.

2.29. We note that DNOs may also perceive risks associated with fast-tracking as they may have concerns that, by agreeing a settlement early they may receive a less favourable price control package than if they had remained in the process. We do not consider this to be a significant risk given that we would expect fast-tracked companies to be able to demonstrate they are operating at or near the efficiency frontier and to set the benchmark on financial issues.

2.30. As well as the benefits outlined above, proportionate treatment should encourage well-justified plans which demonstrate effective stakeholder engagement. Employing proportionate treatment should, therefore, encourage the achievement of additional benefits such as effective stakeholder engagement.

Financeability proposals

2.31. Our financeability proposals are an important part of the overall RIIO model. Under these proposals, we have specified a set of long-term financeability principles which will provide investors with clarity over our intended approach. This should allow investors to provide the capital required to fund the estimated new investment in network assets required in the period. There are various elements of the

financeability proposals upon which we have sought to provide clarity and these are discussed in the following sections.

Cost of debt

2.32. In our RIIO decision document, we confirmed that we would be introducing indexation to the cost of debt. We considered this change to be particularly relevant, given that we are extending the length of the price controls under RIIO. If the cost of debt were set using the traditional method, employed in DPCR5, we would need to provide headroom due to uncertainty regarding debt costs over a price control period. This headroom would result in additional costs for consumers. Moving to a longer price control would result in a larger headroom requirement due to the additional uncertainty that would be faced over a longer period. Indexation will allow the cost of debt to be set more closely to actual debt costs over time. It will also allow consumers to benefit in the event that debt costs fall and protect investors in the event that debt costs rise. It should, therefore, reduce costs for consumers and risk for investors.

Notional gearing

2.33. In the RIIO handbook, we set out that we would base the level of notional gearing on an assessment of the riskiness of network company cash flows. In doing this, we will need to both balance, and ensure consistency between, a number of factors including the riskiness of the cash flows, performance against credit metrics and the cost of equity. Through this approach, we will be able to set a more appropriate cost of capital, which should ensure that investment is appropriately rewarded and encouraged.

Asset life and depreciation

2.34. As part of RIIO-T1, we undertook a review of asset lives for both electricity transmission and distribution and concluded that we should base depreciation allowances on economic asset lives of 45 years for both sectors instead of the current regulatory asset life of 20 years. The use of the longer asset lives (which better reflect the actual lives of the majority of assets) will improve intergenerational equity by ensuring that consumers pay the appropriate charge for the use they make of the assets and provide more stability for investors. We will not be revisiting this decision in RIIO-ED1, but recognise that the change could cause short-term financing issues for some of the DNOs. We will, therefore, allow them to justify if they should have transitional arrangements in their business plans.

Volatility of charges

2.35. Some suppliers have indicated that they include a risk premium in their fixed contracts in order to protect themselves against unforeseen changes in network charges arising from the price control settlement.

2.36. We, therefore, consulted on options to improve the predictability of charges and reduce their volatility.⁴ Our consultation proposed changes to both the price control framework and the setting of network charges. The principal aim of the options was to improve the predictability of revenue changes, and thus charges. This was based on the premise that if suppliers understand how charges will evolve, they can incorporate such changes in the contracts they offer customers, and this should reduce any risk premium included in suppliers' contract offers.

2.37. Whilst we have not yet published our decision on network volatility, we intend to design the RIIO-ED1 framework such that it reflects this decision.

Greater opportunities for consumer involvement in the price control

2.38. Under the RIIO model, we have included opportunities for consumers to play a greater role in the development of the price control through enhanced engagement opportunities with us. The RIIO model also places greater incentives on network companies to more effectively engage with their stakeholders as compared with the RPI-X regime. This will allow consumers to become more informed on the proposed plans of network companies and, in turn, influence the development of their business plans. Consumers have the opportunity to influence our thinking with respect to the development of policy and in our assessment of network company business plans.

2.39. We think that, where these engagement mechanisms are managed effectively by both us and the DNOs, this should provide greater opportunities for consumers to influence the final price control. Where this happens, the outcomes from the price control should more closely reflect the views and preferences of consumers and therefore deliver value for money in line with their expectations. Clearly there is some risk that not all groups of consumers are effectively represented through these processes. This places an onus on us and the DNOs to ensure that there is effective representation of all groups and to seek to actively involve parties where we become aware that they are underrepresented.

Customer focussed outputs and incentives

2.40. Our proposals across a range of outputs are intended to deliver benefits to consumers. For instance, in our proposals for network reliability we set out how we will incentivise DNOs to minimise the number of customers who experience a supply interruption (and the length of the interruption). Our stakeholder engagement indicates that supply reliability is the primary concern for customers.

2.41. Statutory regulations set out guaranteed standards of performance on reliability, under which a customer is entitled to a fixed payment from the DNO if

⁴ Mitigating network charging volatility arising from the price control settlement Ref:52/12 13/4/2012 available at http://www.ofgem.gov.uk/Networks/Policy/Documents1/Charging_Volatility_Cons.pdf

their supply has been interrupted for a period of 18 hours or more. Following willingness to pay analysis and further stakeholder feedback during the policy development for RIIO-ED1 we are proposing to reduce this period to 12 hours. We are consulting on removing the exemptions from the guaranteed standards for SSE's Scottish highlands and islands area. This would mean that these customers receive payments for being off supply, in line with other customers elsewhere in GB.

2.42. We consider a mechanism to encourage DNOs to address customers deemed to be 'worst served' in terms of reliability is important. We are considering whether a financial incentive in this area is suitable or whether to retain the DPCR5 use it or lose it allowance.

2.43. In DPCR5 we recognised the risk of flooding and the potential impact on supply. We therefore provided DNOs with funding to mitigate this risk in certain areas. We propose to continue to fund this mitigation, and are consulting on whether to place an incentivised output metric on flood resilience.

Customer satisfaction

2.44. In DPCR5, we introduced a new mechanism, the Broad Measure of Customer Satisfaction (BMCS), which came into effect in April of this year. It comprises various elements which each have a separate financial incentive: an independent panel assessment of the company's ongoing stakeholder engagement; the ability of the DNOs to resolve complaints; and a survey of customer satisfaction that incorporates the views of customers who have made a general enquiry, experienced an interruption or required a connection.

2.45. As the BMCS has only just been introduced, we are not proposing significant changes. We are looking to increase the overall size of the incentive to reflect our enhanced understanding of the effectiveness of the mechanism in delivering benefits to consumers (increased from +/- 1 per cent to +1.5 per cent to -2 per cent). The level of penalty exposure will depend on how much competition there is for connections work in each DNO's region. We also want to ensure that the views of customers requiring larger connections are sufficiently represented. Finally, we propose to review the scope of the survey so that customers who interact with the DNO by web-based technologies (facebook, twitter etc.) are included alongside telephone based contacts.

Conditions for connections

2.46. A set of statutory guaranteed standards of performance for connections requires DNOs to deliver various elements of the connections process within a specified period of time. However, there is no single standard associated with the overall time to connect and ultimately this is determined by the DNO. We therefore propose to introduce a new Average Time to Connect output and incentive. This is to encourage DNOs to move beyond complying with guaranteed standards and instead consider how they can plan and process connections more effectively to reduce the overall time taken.

2.47. We also plan to improve the connections elements of the BMCS by creating separate surveys for large and small customers. This is to recognise stakeholder concerns that different sized customers have different requirements.

2.48. We also propose to enhance the BMCS to encourage DNOs to provide more information upfront. Having this additional information should enable customers (including distributed generation, DG) to make more cost effective decisions. We also propose to retain the existing requirement for the DNOs to maintain a common user-friendly DG connection guide.

Social obligations

2.49. We want DNOs to address those social issues that are associated with their activities. We consider DNOs should adopt a strategic approach, with emphasis on joint working with a range of stakeholders across industry (GDNs and suppliers), Government and other agencies to address key issues around fuel poverty and other forms of consumer vulnerability.

2.50. We are asking DNOs to outline in their business plans how they intend to improve their understanding of consumer vulnerability and how they will work in partnership with others (eg suppliers, other distributors, local authorities and devolved administrations and other utility providers such as water) to share and use their information more strategically during RIIO-ED1.

2.51. In this consultation, we are seeking views on whether there are specific activities that the DNOs can undertake in this area and whether we should introduce a mechanism to enable funding during the course of the price control. To date no activities have been identified in our stakeholder working groups or consumer research and therefore it is not possible to define any outputs at this stage.

2.52. We also propose to increase the financial incentive associated with the stakeholder engagement element of the BMCS. This will provide a mechanism to reward specific efforts by DNOs to work in association with others in developing and using the information they hold on consumer vulnerability.

Impacts on competition

2.53. Our principal objective is to protect the interests of existing and future consumers, wherever appropriate, by promoting competition where this would best protect their interests or by other means if there is another manner to better protect those interests. It is, therefore, important that we consider the impact that implementation of RIIO-ED1 could have on competitive forces. We note that the DNOs are only subject to competitive pressures at the ends of their networks where independent companies compete for the opportunity to extend the network and connect new customers, eg new housing developments.

2.54. Within RIIO-ED1, there are two main areas where competitive pressures can deliver potential benefits for consumers. These areas are described below.

- **Proportionate treatment:** As outlined above, our proposals on proportionate treatment will allow us to focus our assessment of DNO business plans in the areas where it is likely to deliver most benefits for consumers. In addition, the potential to allow DNOs to be fast-tracked to their final price control settlement will provide incentives to DNOs to deliver high quality business plans. This will, to some extent, draw on competitive forces as DNOs will be aware of the comparisons being made between their own business plans and the business plans of other network companies.
- **Innovation stimulus package:** We recognise that significant levels of innovation are likely to be needed by DNOs if they are to facilitate the transition to a low carbon energy sector at value for money for consumers. Our innovation proposals include the Network Innovation Competition, an annual competition between the electricity transmission operators, the DNOs and other electricity network licensees for funding of innovation trials.

2.55. In designing our proposals, we have also taken into account the potential impact on existing (or future) competition. In DPCR5, we established mechanisms to encourage competition in the connections market. Therefore, we are proposing to only implement connection incentives in those parts of the market deemed uncompetitive, to ensure that we are only regulating where we need to. The connections guaranteed standards of performance will still apply all connections, providing a minimum threshold of service.

2.56. Our proposals for the BMCS also factor in the impacts of competition. We propose that performance under both the satisfaction survey for connections customers and the average time to connect incentive will be subject to financial rewards and penalties for smaller connection customers. For large connection customers in segments of the market that are seen to be competitive, these incentives will apply on a penalty only basis. The level of penalty exposure will depend on how the extent to which a DNO is able to demonstrate that effective competition exists in their area.

Impacts on sustainable development

2.57. One of the key drivers of the RPI-X@20 review was the need to ensure that the regulatory framework remained fit-for-purpose given the challenges that the network companies would face in the future, particularly those challenges associated with the transition to a low carbon economy. As set out in Chapter 1, encouraging network companies to play a full role in facilitating the transition to a sustainable energy sector is one of the two overriding objectives of the RIIO framework.

2.58. In ED1 and subsequent price controls, we expect to see significant take-up of low carbon technologies, predominately driven by UK renewable energy and carbon emission reduction targets. DNOs have a crucial role in facilitating the connection of these technologies, thus contributing to national policy objectives. DNOs can also

have a direct impact on GB carbon emissions through actions such as reducing network losses and direct emissions, such as SF6. These sustainability considerations have been central to policy development for RIIO-ED1.

2.59. Our RIIO-ED1 proposals aim to support DNOs in taking a more strategic approach in preparing for the range of low carbon technology deployment scenarios that could arise. Through the price control and beyond, there is uncertainty over the volume, rate and location of low carbon technology deployment. Whilst this uncertainty poses challenges for distribution network design and management, it also creates opportunities for 'smarter' solutions. Modelling work from the Smart Grids Forum⁵ has demonstrated substantial future cost savings that could be achieved by managing low carbon technology growth through the adoption of 'smart grids' solutions including demand-side response.

2.60. Our proposals for the innovation stimulus will support the development and deployment of these smart solutions. A significant challenge for novel solutions will be to demonstrate that they can meet reliability, availability and safety standards and thus become part of business as usual approach to network management.

2.61. The bundle of measures around efficient and timely connections in ED1 should support good service standards for connecting customers, including distributed generation and low carbon customers. This is supported by an increased focus on upfront information provision for customers in the broad measure of customer satisfaction.

2.62. Our proposals for network reliability will ensure that the DNOs anticipate how the network can accommodate the increasing use of low carbon technologies without causing outages.

2.63. The continued focus on losses as an important area of activity, and the improved reporting and forecasting requirements for business carbon footprint and, in particular, SF6, reflect the value we place on reducing emissions over which DNOs have direct control. We note that there have been significant problems with the DPCR5 losses output and incentive due to major fluctuations in settlement data (from which losses are calculated). We consider that these problems will continue during RIIO-ED1. Therefore, as set out on the 'Supplementary annex – Outputs, incentives and innovation' there is no way to objectively measure the losses on the network in ED1. We have, therefore, set out proposals which focus on instead on the actions DNOs undertake to reduce losses and what they have achieved.

2.64. Whilst we currently have an incentive mechanism to encourage the DNOs to connect uncertain volumes of distributed generation (DG) at efficient cost, we think this mechanism is no longer required given the package of measures set out above. This package will encourage appropriate behaviour, such as information provision,

⁵ Further information on the SGF and published reports can be found on the Ofgem website at: <http://www.ofgem.gov.uk/Networks/SGF/Pages/SGF.aspx>

customer service, and speed and cost of connection across both low carbon technologies and DG.

Impacts on health and safety

2.65. The maintenance of safety standards is clearly of utmost importance when it comes to the distribution networks. As outlined above, responsibility for regulation of this area primarily rests with the HSE and they have arrangements in place with the DNOs to ensure the delivery of network services in line with predefined safety standards. However, we do recognise that expenditure on assets to ensure the ongoing safety of the network is exceptionally important and this is why we chose to include a specific output category regarding safety, which would form part of the outputs-led regime. We think that inclusion of this output category will ensure that appropriate focus is retained with respect to the important role that safety has within the overall regime and will therefore have positive impacts.

3. Risks and unintended consequences

Chapter Summary

This chapter provides an overview of the general risks of implementing the RIIO-ED1 proposals and explains the mitigating actions that have been incorporated into the framework to manage these risks.

Question 1: Have we correctly identified the risks associated with implementation of RIIO-ED1?

Question 2: Are there other risks that implementation of RIIO-ED1 may have?

3.1. In this chapter we set out some of the perceived risks and potential unintended consequences associated with the RIIO framework and our proposals for RIIO-ED1. If these risks were realised they could lead to costs for consumers and ultimately reduce the benefits of the regime outlined in Chapter 2. Where possible, we have sought to implement protections to guard against these risks and, in the event that they were to materialise, we would have tools at our disposal to manage their impact. We think the benefits of applying the RIIO model in the context of RIIO-ED1, as set out in Chapter 2, significantly outweigh any potential risks that may arise. This is particularly the case when these risks are considered within the context of the protections that we have put in place to mitigate them.

3.2. We begin this chapter by setting out the risks and unintended consequences arising from the uncertainty surrounding the potential take-up of low carbon technologies.

3.3. We then look at the risks and unintended consequences identified in the RPI-X@20 IA which remain relevant given the additional work that we have taken forward with respect to RIIO-ED1. This includes the following potential issues:

- DNOs do not deliver their primary outputs
- we over/underestimate the allowances required by the DNOs
- the regime includes increased regulatory risk due to the presence of the mid-period review of outputs, concerns that the financeability proposals may make investment less attractive and the risk that insufficient consideration may be given to the needs of future consumers.

3.4. Finally we discuss the risk that we might develop elements of RIIO-ED1 that are not in accordance with the RIIO framework, meaning that the benefits envisaged under RIIO are not delivered. This risk is discussed in more detail later in this chapter.

Low carbon uncertainty

3.5. Throughout this consultation, we have highlighted that the DNOs will need to be able to accommodate potentially significant volumes of local generation (such as solar pV and wind) and low carbon demand (such as electric vehicles and heat pumps). Since distribution networks are not designed to accommodate these loads and we expect this to be a key driver of future expenditure needs. Adding to the challenge is the fact that there is considerable uncertainty around the take-up of these technologies, in terms of volumes and location as well as the impact on the network.

3.6. In the first chapter of the 'Supplementary annex - Outputs, incentives and innovation', we explain how we expect the DNOs to use the national scenarios created by DECC on the potential take-up of low carbon technologies as well as offering them the opportunity to put forward their own scenarios. DNOs are currently translating the scenarios to reflect their areas. We also set out how the Smart Grid Forum⁶ has created a model to evaluate the costs and benefits of smart grids solutions, especially with respect to accommodating the new low carbon demand. It has also looked at any barriers to the adoption of these solutions.

3.7. During RIIO-ED1, DNOs will need to prepare for ED2 and beyond. Assets installed in ED1 will last 40 years or more, meaning that they need to be fit for purpose in the long term. We have, therefore, set out that DNOs will need to cover in their business plans their strategies for ED1 so that they can efficiently accommodate any of the DECC scenarios. These strategies will involve a combination of ex ante funding and uncertainty mechanisms. As part of our assessment of the business plans, we will evaluate these strategies and whether they will provide long term value for money for customers and an appropriate balance of risk.

3.8. In the chapter, we also set out how our package of outputs and incentives will ensure the DNOs have an ongoing focus on connecting these new loads in an appropriate time, at appropriate cost and without causing problems on the network.

Non-delivery of the primary outputs

3.9. In the RPI-X@20 IA, we noted stakeholder concerns that, where network companies sought to adopt new and innovative approaches, this could lead to the non-delivery of outputs. We have summarised the main issues in Table 3.1 below.

Table 3.1: Risks associated with the non-delivery of primary outputs

Risk	Mitigation under RIIO
Adopting innovative approaches that are not consistent with	<ul style="list-style-type: none">• Thorough assessment of business plans with a high hurdle for companies to demonstrate

⁶ <http://www.ofgem.gov.uk/Networks/SGF/Pages/SGF.aspx>

business as usual could lead to non-delivery of outputs.	their ability to deliver against the outputs. <ul style="list-style-type: none"> • Non-delivery of outputs will be penalised.
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3.10. As set out in Table 3.1, above, we continue to believe that the risk of non-delivery of outputs will be mitigated through a thorough ex ante assessment of the business plans and the implementation of strong rewards/penalties that are, where possible, specified upfront. These incentives will encourage the network companies to efficiently deliver through the potential to achieve rewards and dissuade non-delivery through the application of meaningful penalties. In a similar way to the efficiency incentives, the output incentives will be applied transparently (where possible, on a yearly basis) and therefore this should strengthen the incentives to deliver outputs. We also intend to monitor delivery of outputs over the course of the price control period using a balanced scorecard approach. This will provide a clear and simple way to convey information on the performance of the network companies and will highlight any potential problems with respect to output delivery as they arise.

3.11. We note that, during the development of proposals for RIIO-ED1, we have given greater thought to the form that the business plans and associated assessment should take. The clarity and guidance that we are providing regarding what we expect from DNO business plans should help to ensure that these business plans are well-justified and will deliver against required outputs. Where we have concerns about the business plans submitted by particular DNOs, the transparent provisions associated with proportionate treatment would allow us to subject these business plans to greater scrutiny. This should ensure a more favourable outcome is delivered for consumers.

Over/under estimation of allowances

3.12. Stakeholders have previously expressed concerns that, under the RIIO model, network companies may be able to include overinflated costs for the delivery of outputs in their business plans. They suggested that information asymmetry, combined with the greater focus on outputs under RIIO, would mean that we may not have clarity on the likely costs that network companies would incur. In addition, the extension of the price control period could lead to a greater risk of network companies over/underestimating the costs that they could face over the coming period. We have summarised the main issues in Table 3.2 below.

Table 3.2: Risks associated with the over/underestimation of allowances

Risk	Mitigation under RIIO
We may agree to overestimated costs submitted by the company	<ul style="list-style-type: none"> • Outputs will provide visibility on what network companies propose to deliver and associated costs. • Longer-term business plans will allow us to assess network companies against a longer-term strategy. • We will use a variety of tools to assess the business plans to ensure reasonableness. • The IQI will help protect against inflated costs.
Increasing the price control	<ul style="list-style-type: none"> • We will calibrate the strength of the upfront

from five to eight years could lead to base revenues being set too high/low due to forecasting difficulties	<p>efficiency incentives in light of this uncertainty.</p> <ul style="list-style-type: none"> • We will develop uncertainty mechanisms to manage these risks without undermining the benefits of a longer-term control.
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3.13. We have confidence that the outputs-led nature of the RIIO model will provide visibility on what the network companies intend to deliver in the coming period and, combined with the longer term business plans and secondary deliverables, will provide an understanding of their plans for the future. In our Strategy Consultation, we have provided transparency on our expectations of the business plans and the way we intend to assess these as part of RIIO-ED1. We have a range of tools at our disposal, including the information quality incentive (IQI), and these will allow us to assess DNO business plans, confirming our initial views through the use of additional mechanisms and supporting evidence.

3.14. We recognise that predicting the costs that DNOs will face over a longer-term price control is likely to be difficult due to potential uncertainties about the way circumstances may change over a longer time period. In general, we expect DNOs to manage the uncertainty they face but we recognise that there may be circumstances where changes to the regulatory settlement are needed. To allow for these cases, we have proposed a set of uncertainty mechanisms that can be called upon in circumstances where there is clear justification for this.

Increased regulatory risk

3.15. In the RPI-X@20 IA, we highlighted a number of areas of the RIIO model that could lead to increased regulatory risk. These included risks associated with the mid period review of outputs, the financeability proposals and insufficient weight being given to the needs of future consumers. We address each of these in turn below.

Mid-period review of output requirements

3.16. Although during RPI-X@20, many stakeholders agreed that a mid-period review of outputs would help to address uncertainties regarding the requirements of the networks during an eight year price control period, they had concerns that it might not be sufficiently tightly defined and may therefore lead to a full price control review. The issue is outlined in Table 3.3 below.

Table 3.3: Risks associated with the mid-period review of outputs

Risk	Mitigation under RIIO
The mid-period review may not be sufficiently tightly defined and may lead to a full price review	<ul style="list-style-type: none"> • We would ensure that the grounds for the mid-period review were clearly set out as part of the final price control proposals.

3.17. Throughout RPI-X@20, we were clear that it would be important for us to be transparent about the issues that could be addressed, within a mid-period review of outputs, at the start of the price control period. As part of our Strategy Consultation,

we are proposing to restrict the scope for the mid-period review to changes to outputs that can be justified by clear changes in government policy and the introduction of new outputs that are needed to meet the needs of consumers and other network users. We have proposed a qualitative materiality test to decide whether there is a material change that requires a mid-period adjustment to outputs. We do not think it is possible to capture the consumer interest within a quantitative threshold. In taking decisions on a mid-period review, we will consider the risks and downsides of potential changes, for example instability of the outputs, reducing incentives to improve output performance and administrative costs.

Risk that financeability proposals makes investment unattractive

3.18. In the RPI-X@20 IA, we recognised stakeholder concerns with respect to our proposed approach to financeability and the impacts that this could potentially have on investor decisions. The issues are summarised in Table 3.4 below.

Table 3.4: Risks associated with the financeability package

Risk	Mitigation under RIIO
The financeability principles could deter investors from the sector	<ul style="list-style-type: none"> • The package provides commitment to investors. • The package provides a transparent set of principles that will increase predictability and reduce risk. • We will implement appropriate transition arrangements to ensure investors are not deterred from the sector.

3.19. We believe that our approach to financeability, rather than deterring investors, will encourage investment through the provision of a commitment to a set of transparent principles that we will use in determining the financeability package. We are also currently assessing our options for the development of appropriate transition arrangements to ensure that the cash flows of the network companies are not unduly impacted by the transition to these new arrangements. Our preference is to implement these transition arrangements over one price control period if possible.

Risk that insufficient weight given to needs of future consumers

3.20. Some stakeholders have raised concerns that the needs of future consumers may not be adequately represented when determining the price control settlements in RIIO-ED1, particularly as part of the enhanced engagement conducted by ourselves and DNOs. The issues are set out in Table 3.5 below.

Table 3.5: Risks associated with representation of future consumer needs

Risk	Mitigation under RIIO
Enhanced engagement could give insufficient weight to the views of future consumers	<ul style="list-style-type: none"> • The Authority will continue to take a balanced approach to assessing the price control and the way it has considered the needs of existing and future consumers.

3.21. We note that this is a risk that would be encountered under any regulatory regime given that future consumers will not be able to take part in any process of stakeholder engagement. However, the Authority will consider future consumers' interests as part of its role in protecting future consumers as set out in its principal objective. We recognise that the Authority may not have perfect clarity regarding what the needs of these consumers will be in the future, but consideration of future consumer interests will ensure their needs are assessed as part of decisions taken.

Risk that elements of the regime are developed incorrectly

3.22. In response to the RPI-X@20 recommendations document, many stakeholders expressed support for the rationale underpinning a number of aspects of the RIIO model. However, they noted that achieving benefits from this new regime was not linked to the principles developed for the RIIO model but rather was dependent on the way these principles were interpreted and applied in practice.

3.23. To guard against the risk that RIIO-ED1 is not developed in a way that delivers the benefits envisaged from the RIIO model, we have sought to engage extensively with a range of stakeholders to understand their views and perspectives on the way we should implement the regime. We recognise the limited resources that some groups of stakeholders have to devote to these types of activities and therefore we have developed a range of forums to allow stakeholders to engage with the intent that this should ensure discussions are representative.

3.24. We also note that there are risks that, due to limited resource, parties may not have a thorough understanding of the issues that are being discussed. To ensure that our engagement with stakeholders is meaningful, we need to provide relevant information and additional clarification where this is required. This will involve not only ensuring the information we put together is in a user friendly format but also making time to engage in bilateral discussions and one-to-one catch ups as required. We are also benefitting from the fact that the RIIO-T1 and GD1 processes have brought many national stakeholders up to speed on the RIIO principles and issues to do with their implementation.

4. Post implementation review

Chapter Summary

This chapter sets out our current thinking on the costs that will be associated with implementation of RIIO-ED1. It also provides an overview of the approach that we intend to take to reviewing our implemented price control settlements for RIIO-ED1.

4.1. We note that it is not only important to think about the impacts and potential risks that would result from implementation of RIIO-ED1. We also need to consider the direct costs that would be incurred in implementing this package of measures and whether application of our proposals would be prohibitively expensive. In addition, to ensure that the benefits identified in Chapter 2 were achieved and the risks highlighted in Chapter 3 were minimised, we would need to undertake a post-implementation review of the respective regimes at an appropriate point in the future. In doing so, we should seek to learn lessons from the experience of the price controls that are implemented using the RIIO principles.

4.2. This chapter discusses both the costs that may be incurred in implementation of RIIO-ED1 as well as the approach that we will take in carrying out a post implementation review and learning lessons from our experiences of the regime.

Other impacts, costs and benefits

4.3. As with any proposed new regime, there are likely to be costs associated with the implementation of the RIIO framework in the form of RIIO-ED1. We do not anticipate that significant direct costs will be incurred in terms of the need to develop new IT programmes or invest in new technologies but costs may be incurred as a result of the need to transition to a new regime. In this respect, we think that costs could arise in the following areas.

- **Well-justified business plans:** The RIIO framework includes provisions for the network companies to submit well-justified business plans that consider the costs associated with different options for the delivery of required outputs. At least in the early stages of implementation of the RIIO model, we anticipate that the DNOs will incur costs due to the need to consider these alternative options. This is likely to involve additional resource, both in terms of adapting to the new regime but also exploring alternative options. We think the benefits that would be provided in terms of exposing new solutions warrant this extra expense and note that DNOs may have to incur many these costs anyway to support the adaption of the network to the low carbon future.
- **Enhanced engagement:** Under the RIIO framework there are provisions for both network companies and Ofgem to take forward enhanced engagement with a range of stakeholders. Effectively taking forward this type of engagement is likely to involve increased resource and cost from us, network companies and other interested stakeholders. This increased resource will be needed to prepare

materials, assimilate views and attend meetings. If the outcome of these processes is the development of price control settlements that more closely reflect the views of stakeholders, this extra resource will be fully justified.

- **Potential costs associated with the outputs regime:** We recognise that there are a number of elements of the outputs-led regime that remain undefined at present with a number of options still available. We note that, depending upon the decisions that we ultimately take in these areas, additional costs may be incurred by the network companies. We will be sure to consider any additional costs that may arise as a result of our decisions in these areas and will need to be satisfied that where costs are incurred these are offset by benefits delivered.

4.4. We recognise that direct costs of implementing the regime may arise in a number of areas. We do not think that these costs will be significant as compared with the benefits that are likely to be achieved from the implementation of RIIO-ED1 using the RIIO principles. We would also note that a large proportion of these costs would have been incurred in the event that the price controls were developed using the RPI-X regime. In addition, there are elements of the RIIO model that are likely to mean lower direct costs are incurred, which will ultimately deliver benefits for consumers. For example, the use of proportionate treatment will allow both us and the network companies to focus our resources in the areas where they will deliver most benefits. This will ensure that resources are targeted in the most appropriate areas and should therefore deliver lower costs and associated consumer benefits.

Post-implementation monitoring and review

Monitoring delivery of the objectives

4.5. Following implementation of RIIO-ED1 we will need to ensure that we fully understand the extent to which the objectives of the framework were being met. To achieve this, after implementation, we will:

- monitor the performance of the DNOs in delivering against the primary outputs, and the extent to which this facilitates delivery of the objectives
- analyse the extent to which DNOs have been encouraged to think longer-term by various elements of the price control framework
- understand DNO performance in delivering well-justified business plans and the role this had played in exposing innovative operational solutions
- monitor the application of proportionate treatment and the changes that it facilitated in terms of the performance of the network companies
- assess the development and application of uncertainty mechanisms and the role they play in providing flexibility within the price control
- assess the extent to which the principles on financeability ensure the DNOs are able to finance their activities at a reasonable cost to consumers.

4.6. The role that we will take in monitoring the outcomes of RIIO-ED1 settlements will allow us to better understand the extent to which they are delivering the benefits anticipated in this IA. It would also allow us to make any amendments

to the framework in the future, where this may be needed to better facilitate delivery against the objectives.

Adapting the framework over time

4.7. Given uncertainty about the best way to develop the networks to facilitate the transition to a sustainable energy sector, it is important that the RIIO model is able to adapt to changing circumstances. This would enable us to refine regulatory arrangements over time, learning lessons from previous control periods, adapting to changing government policy and learning lessons from other sectors.

4.8. While we expect the overriding objectives and associated principles underpinning the RIIO model to be long lived, and adaptable to changing circumstances, the way the principles are implemented may need to be amended to reflect changing industry conditions. There are likely to be significant benefits where the regulatory regime is adaptable and these could be more effectively delivered where there is transparency about how this adaptation could take place. The following list outlines the principles with which we would seek to conform in adapting the regulatory framework over time. In particular, we would:

- consider the principles of better regulation⁷
- ensure our decision making was open and transparent
- ensure accountability to stakeholders
- take decisions based on robust and auditable evidence
- provide clear and reasoned explanations for changes that we made
- consider the impact of changes on regulatory commitment and credibility
- ensure the proportionality of any changes made.

4.9. We anticipate that adhering to these principles will provide transparency to stakeholders with respect to the areas in which changes may be made and the rationale for these changes. It would also allow stakeholders to identify, and propose, areas in which adaptation of the regulatory regime may be appropriate in the future.

⁷ The principles of better regulation are: transparent, accountable, proportionate, consistent, and targeted. Adhering to these principles is consistent with our duties under Section 3A (5A) of the Electricity Act 1989 and Section 4AA (5A) of the Gas Act 1986.

5. Conclusion

Chapter Summary

This chapter sets out our conclusions regarding the impact that implementation of RIIO-ED1 could have on consumers, competition and sustainable development.

5.1. In this IA, we have explored the potential impacts that may be observed as a result of the implementation of our current proposals for RIIO-ED1. We recognise that we are currently at an early stage in the development of the price control but consider that there is merit in assessing, at a high level the impacts that we anticipate may result from our current proposed approach.

5.2. There are likely to be positive impacts in a number of areas as a result of the implementation of RIIO-ED1. In particular, we anticipate significant benefits for consumers resulting from strong incentive to achieve value for money in the transition to a sustainable energy sector. These benefits may stem from a number of elements of the RIIO regime including the longer-term focus, the suite of incentives that will be implemented, the use of proportionate treatment and the transparent financeability package. We have proposed a suite of outputs and incentives that will encourage DNOs to provide better service to their customers. We also note that the RIIO model will provide greater opportunities for consumers to engage in the development of RIIO-ED1 and this should provide a route for consumers to influence the package and seek to ensure that it represents value for money.

5.3. We anticipate that implementation of RIIO-ED1 will also have a number of positive impacts in terms of sustainable development. We have proposed a package of outputs and incentives which will drive the DNOs to consider their broad environmental impact, with respect to the connection of the new low carbon loads and generation, as well as their narrow environmental impact such as their carbon footprint and losses on the network.

5.4. We recognise that there are a number of identifiable risks which could threaten the achievement of these benefits. These include, amongst other things, the risk that allowances are set inaccurately, the risk of output non-delivery and the risk that we may set elements of the framework incorrectly. However, we note that many of these risks would also be observed if a price control were being progressed in accordance with the principles of the RPI-X regime. In addition, we have put a number of mechanisms in place to mitigate these potential risks.

5.5. With any framework, there is real merit in adapting and evolving the regime over time to reflect past experience and changing circumstances and this is an approach we are seeking to take with respect to the RIIO model.

Appendices

Index

Appendix	Name of Appendix	Page Number
1	Consultation Response and Questions	36

Appendix 1 - Consultation Response and Questions

1.1. Ofgem would like to hear the views of interested parties in relation to any of the issues set out in this document.

1.2. We would especially welcome responses to the specific questions which we have set out at the beginning of each chapter heading and which are replicated below.

1.3. Responses should be received by 23 November 2012 and should be sent to:

- Anna Rossington
- Head of RIIO-ED1
- 9 Millbank, London, SW1P 3GE
- 020 7901 7401
- RIIO.ED1@ofgem.gov.uk

1.4. Unless marked confidential, all responses will be published by placing them in Ofgem's library and on its website www.ofgem.gov.uk. Respondents may request that their response is kept confidential. Ofgem shall respect this request, subject to any obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

1.5. Respondents who wish to have their responses remain confidential should clearly mark the document/s to that effect and include the reasons for confidentiality. It would be helpful if responses could be submitted both electronically and in writing. Respondents are asked to put any confidential material in the appendices to their responses.

1.6. Next steps: Having considered the responses to this consultation, Ofgem intends to publish the Strategy Decision in February 2013. Any questions on this document should, in the first instance, be directed to the name and address set out above.

CHAPTER: Two

Question 1: Have we correctly identified the impacts that RIIO-ED1 will have on consumers, competition, sustainable development and safety?

Question 2: Are there any additional impacts that RIIO-ED1 may have?

Question 3: Are there any specific areas in which we should seek to quantify the impacts of implementing RIIO-ED1 in a later IA?

CHAPTER: Three

Question 1: Have we correctly identified the risks associated with implementation of RIIO-ED1?

Question 2: Are there other risks that implementation of RIIO-ED1 may have?