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RIIO

RIIO: A new way to regulate energy networks

Final decision

October 2010

Target audience: **Consumers and their representatives, transmission and distribution companies, generators and offshore gas producers/importers, suppliers, shippers, debt and equity investors, environmental organisations, academics and other interested parties.**

This document aims to provide an accessible overview of the decision we have taken on the RIIO framework. It sets out the 'what and the why' of our decision and is aimed at a wide range of interested parties. Details on how RIIO would work are provided in more detail in our technical supporting paper. **'Handbook for implementing the RIIO model' http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf**

We have worked closely with a range of stakeholders and interested parties to understand the issues and challenges facing the energy network companies. We have assessed a range of alternative regulatory frameworks and consulted widely on our developing ideas on specific aspects of the regulatory framework. We are keen to record our thanks to all of the companies, academics, organisations and individuals who have participated in and contributed to our review. Their comments have been taken into account as we have reached our final decision on the RIIO framework.

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Decision

» **Reference:** 128/10
» **Publication date:** 4 October 2010

Regulating energy networks for the future:
RPI-X@20 Recommendations

Overview: **RPI-X@20 is Ofgem's detailed review of energy network regulation. We have 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. There is considerable uncertainty about the best way to meet these challenges whilst delivering value for money for existing and future consumers.**

If Britain's energy network companies are to deliver the networks needed for a sustainable energy sector, the way we regulate them needs to change. In July 2010 we published our Recommendations consultation on a new regulatory framework, known as the RIIO model, which we would use to develop future price controls for electricity and gas transmission and distribution network companies. This document sets out our final decision on the RIIO model. In reaching its decision, the Gas and Electricity Markets Authority took into account the responses received to the Recommendations consultation.

The RIIO model will first be applied in the next transmission and gas distribution price control reviews (due to be implemented by April 2013) and in the sixth electricity distribution price control review.

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Associated documents

- Handbook for implementing the RIIO model
  http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf
- A Guide to Price Control Modification References to the Competition Commission - Licensee and Third Party Triggered References
  http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/final%20mod%20guidance.pdf
- Regulating energy networks for the future: RPI-X@20 Recommendations
  http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RPI-X@Recommendations.pdf
- Regulating energy networks for the future: RPI-X@20 Recommendations - Impact Assessment
  http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/Impact.pdf
- Glossary
  http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/rec%20glossary.pdf
- Emerging Thinking consultation (January 2010)
  http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=42&refer=NETWORKS/RPIX20/CONSULTDOCS
- Principles, Process and Issues consultation (February 2009)
  http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=76&refer=NETWORKS/RPIX20/CONSULTDOCS
- Alistair Buchanan speech: Is RPI-X still fit for purpose after 20 years? October 2008
  http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=24&refer=NETWORKS/RPIX20/FACTSHEETS
- Alistair Buchanan speech: Ofgem's 'RPI at 20' project, March 2008
  http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=23&refer=NETWORKS/RPIX20/FACTSHEETS
- Other working papers, consultant reports and submissions by network companies and other parties can be found on **the RPI-X@20 website:**
  http://www.ofgem.gov.uk/Networks/rpix20/Pages/RPIX20.aspx
- A full list of all the documents produced for the RPI-X@20 review can be found at:
  http://www.ofgem.gov.uk/Networks/rpix20/Stakeholder/Documents1/RPI-X@20%20full%20list%20of%20paper.pdf

RPI-X@20 conclusions

In our July consultation document, we set out 12 recommendations on a potential new regulatory framework – Sustainable Network Regulation using the RIIO model[1]. The Gas and Electricity Markets Authority (the Authority) considered these recommendations in light of the responses to the consultation[2]. The key elements of the new regulatory framework reflecting the Authority's final decision are set out in Box 1 below. In finalising the RIIO model, we have made two amendments. All other recommendations are unchanged. The amendments are:

- **recommendation 6** has been amended to reflect our decision to retain the retail prices index (RPI) as the inflation index for the price control but to keep use of the consumer prices index (CPI) under review
- **recommendation 11** has been amended to provide clarity that we will take into consideration relevant equity as well as credit metrics in assessing financeability.

The precise way in which the RIIO model is implemented will depend on the challenges and circumstances faced by each regulated sector and will be determined as part of future price control reviews.

Box 1: Components of the RIIO model

1 **Objective:** The overriding objective of the RIIO model 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.

2 **Industry structure:** The framework will be implemented under the current industry structure. The Authority will keep under review the need to revisit the alignment of transmission and system operator incentives in gas and electricity, any formal electricity distribution system operator role, and other issues.

3 **Enhanced engagement:** Stakeholders will be given greater opportunities to influence Ofgem and network company decision making.

4 **Third party modification requests:** Alongside this decision document, we have published public guidance on how the Authority would respond to a request from a third party for the Authority to exercise its discretionary power to make a modification reference to the Competition Commission (CC) on the basis that our price control determination may operate against the public interest[3]. We will keep the role of the guidance under review, particularly in light of developments that take place as a result of the implementation of the EU third internal energy package.

[1] See, 'Regulating energy networks for the future: RPI-X@20 Recommendations' http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=81&refer=Networks/rpix20/ConsultDocs

[2] Responses to the 'Recommendations' document can be found at http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=87&refer=NETWORKS/RPIX20/CONSULTDOCS

[3] Consideration of the public interest is referenced in the relevant powers in the Gas Act 1986 and the Electricity Act 1989 and will inform whether the Authority makes a price control modification reference. A Guide to Price Control Modification References to the Competition Commission - Licensee and Third Party Triggered References, available from: http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/final%20mod%20guidance.pdf

RPI-X@20 conclusions

5 **Outputs led:** At the price control review we will set the outputs that network companies are expected to deliver to ensure safe and reliable services, non-discriminatory and timely connection and access terms, customer satisfaction, limited impact on the environment and delivery of social obligations.

6 **Ex ante control:** We will set an upfront price control, incorporating a return on the regulatory asset value and inflation indexation. We will retain the retail prices index (RPI) as the inflation index for fifth transmission price control review (TPCR5) and the second gas distribution price control review (GDPCR2) but will keep the case for moving to consumer prices index (CPI) under review at future reviews.

7 **Length of the price control:** The price control will be set for eight years, with provision for a mid-period review of the outputs that network companies are required to deliver. Uncertainty mechanisms will be implemented where this is consistent with the objectives of the framework and with ensuring network companies can raise required finance in a timely manner and at a reasonable cost to consumers. We will review the length of the control period at future price control reviews if needed.

8 **Proportionate assessment:** We will adopt a transparent and proportionate approach to assessing the price control package, with the intensity and timescale of assessment reflecting the quality of an individual company's business plan and its record for efficient output delivery. Under this approach, we would be able to conclude the price control process early for some companies.

9 **Option to give third parties a greater role in delivery:** The regulatory tool-kit will include the option to require a company to provide market testing evidence to support its business plan proposals. We will also have the option to involve third parties in delivery and ownership of large and separable projects, where this is expected to drive innovation, long-term value for money and/or more timely delivery.

10 **Incentives:** There will be transparent rewards/penalties related to output delivery, including a backstop threat of using our existing powers for enforcement action and potential licence revocation for persistent non-delivery. There will be transparent, upfront, symmetric efficiency incentive rates for under- and overspend. Incentives will be calibrated to ensure they provide long-term value for money.

11 **Principles for ensuring efficient delivery is financeable:** We will ensure that efficient delivery of outputs is financeable by committing to published principles for setting a weight average cost of capital (WACC)-based allowed return to reflect the cash flow risk of the business over the long term. Financeability will be assessed in the round, including a cross-check against relevant equity metrics and credit rating ratios. As now, network companies will be expected to manage their business, including capital structure, efficiently to ensure they are financeable.

12 **Innovation stimulus package:** We will introduce a time-limited innovation stimulus for electricity and gas networks. These will be open to projects at any point in the innovation cycle and to both network companies and third parties for innovation related to delivering the networks required for a low carbon energy sector. The innovation stimulus package will include substantial prize funds to reward network companies and third parties that successfully implement new commercial and charging arrangements to help deliver a sustainable energy sector.

Contents

Executive Summary

Britain's gas and electricity industries are facing their greatest challenge since the construction of the national grid and the conversion to North Sea gas. The demands of moving to a low carbon economy and meeting our renewable targets whilst maintaining safe, secure and reliable energy supplies will lead to profound changes in the way Britain produces, uses and transports gas and electricity. This was set out in our Project Discovery publication which highlighted the need for potentially £200bn of investment[4].

The network companies that transmit and distribute our energy have a vital role to play. They provide the physical link between energy producers and their domestic and business customers. They will need to invest an estimated £32bn by 2020 to deliver the networks required for the low carbon economy and to maintain secure, reliable supplies. This is a near doubling of the expenditure seen over the last twenty years and is 75 per cent of the existing RAV of £43bn.

The outlook is uncertain. How fast will change happen? Which technologies will prove the most effective in delivering low carbon energy? Network companies have a key role in developing the answers. One thing is clear. Business as usual is not an option. Networks will need to be smarter, integrating increasing local renewable and intermittent sources of gas and electricity production and encouraging customers to make their demand more flexible aided by the rollout of smart meters.

To play a full role, network companies will need to build closer links with all of their customers from large businesses to domestic. They will need to plan for the long term, anticipating and responding to changes in current and future demand. They will have to remain flexible, keeping their options open to reflect the uncertainty they face. They will need to innovate in the way they design, build, operate and charge for their networks to deliver smarter networks and encourage customers to change their behaviour.

The scale of investment required means higher energy bills are almost certain. Network companies will have to show consumers that they are getting value for money over the longer term, setting out clearly what is being delivered and at what cost. Given the large amount of investment required in the sector going forward, we do not want to make it difficult for companies to raise the necessary finance. Indeed, we are committed to ensuring that efficient companies are financeable and that those that demonstrably deliver for consumers are remunerated appropriately.

The regulatory framework needs to change

The existing 'RPI-X' regulatory framework has served consumers well, delivering lower prices, better quality of service and more than £35bn in network investment since privatisation twenty years ago. But RPI-X was designed for a very different environment to the one we will face in the future. The regulatory framework needs to change to encourage network companies to deliver a sustainable energy sector and provide value for money.

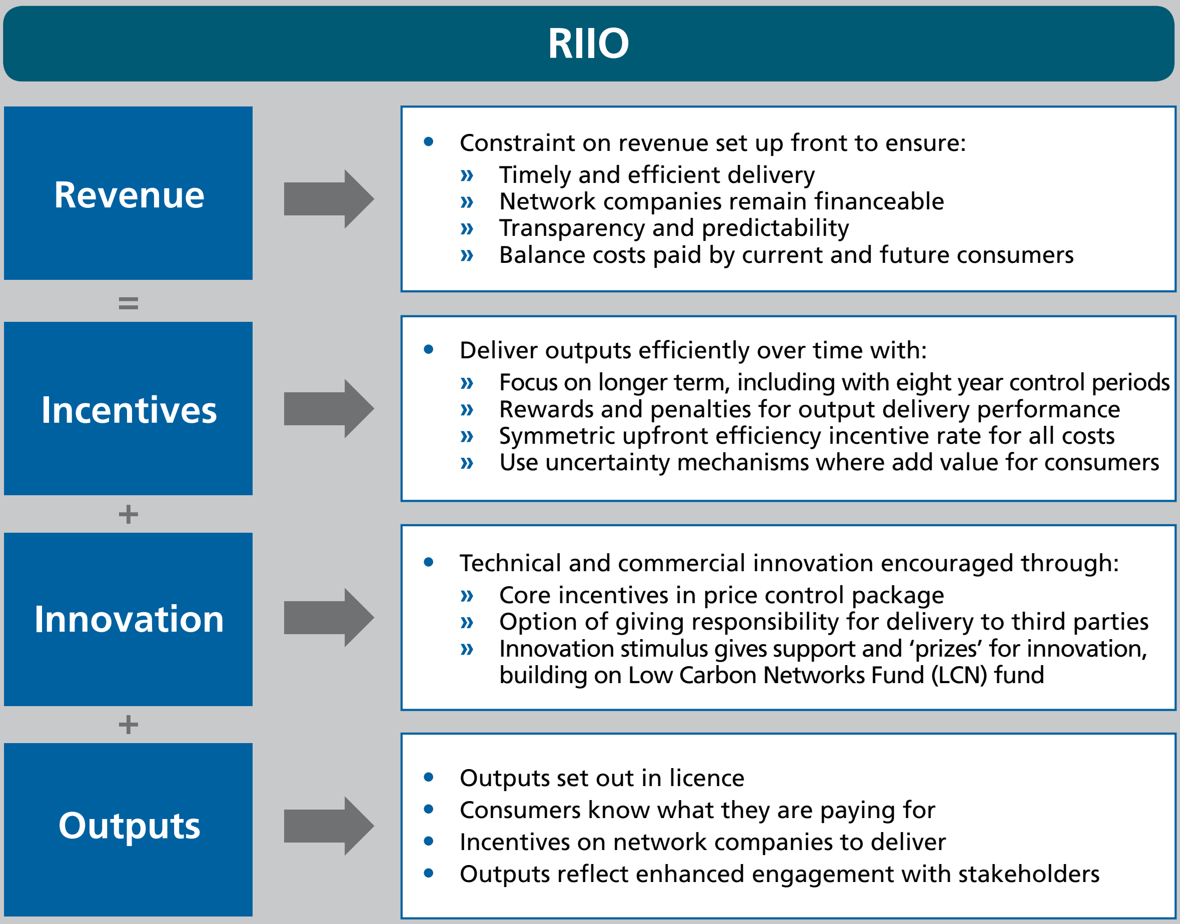
The RPI-X@20 project has allowed us to explore thoroughly the role of network companies and the merits and drawbacks of the existing regulatory framework. We have examined a range of approaches, including what happens in other industries and countries.

[4] 'Project Discovery - Options for delivering secure and sustainable energy supplies', at: http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=73&refer=markets/whlmkts/discovery

We have developed our thinking in consultation with a wide range of stakeholders and interested parties, including network companies, government, investors, consumer groups and our Consumer First panel, users of the networks and their representatives, environmental organisations and academics. We have engaged effectively using a range of tools including workshops, small discussion groups, seminars, working groups, a working paper series, an active web forum, consultation documents and numerous bilateral meetings. We have welcomed and taken account of the ideas and feedback that we have received.

This document sets out a new regulatory framework: Sustainable Network Regulation using the RIIO model – **R**evenue set to deliver strong **I**ncentives, **I**nnovation and **O**utputs. The components are illustrated in Figure 1.

Figure 1: Components of the RIIO model



The RIIO model covers all four network sectors – gas distribution and transmission, and electricity distribution and transmission – and is designed specifically to drive the smarter networks needed for secure and low carbon energy supplies. Indeed it puts sustainability alongside consumers at the heart of what network companies do.

RIIO will deliver

The RIIO model builds on the existing RPI-X regulatory framework, retaining some aspects, evolving others and adding new dimensions where required.

It follows better regulation principles, being more transparent, more accountable, more accessible and more proportionate. We, network companies and stakeholders will focus our attention where it is most needed to ensure value for money for today's consumers and future consumers. Regulatory reviews will be less frequent with a longer price control period. Our focus on outputs, rather than inputs, will encourage and deliver more effective engagement with, and focus on, the needs of existing and future consumers.

We are committing to a price control framework that encourages network companies to deliver in response to commercial incentives with the potential to earn higher returns and face less intensive regulatory scrutiny if they innovate and outperform in delivering a safe, secure and low carbon energy sector and value for money. Companies that do not deliver will see lower returns and more intensive regulatory scrutiny. They may also face a risk of enforcement action and potential licence revocation.

The Authority remains the decision maker on all aspects of the regulatory settlements for the energy network companies and, in particular, will continue to balance the interests of existing and future consumers.

But we recognise that making these decisions is becoming increasingly difficult. To maintain the legitimacy and accountability of our decisions, we need to understand fully the needs of stakeholders, allowing them to play a greater role in the decision making debate and, if they are unhappy with the outcome, making clear how they could challenge our price control decisions. Alongside this document, we have published guidance on how we would treat third parties' concerns about our final proposals, including how we would decide whether to modify the proposals and whether to refer the matter to the Competition Commission.

RIIO is a comprehensive regulatory framework aimed at delivering real benefits for consumers – timely delivery of a sustainable energy sector at a lower cost to consumers than would be the case under the existing regimes. To deliver, network companies will need to change, bringing new ways of delivering into existing organisations. We need to encourage the change by providing commitment to allow companies that 'step-up' to be rewarded and by encouraging other stakeholders to join us in encouraging network companies to play a full role.

Implementing RIIO

Given the large amount of investment required in the sector going forward, we do not want to make it difficult for companies to raise the necessary finance. Indeed, our approach to financeability under the RIIO model is designed to help them. Providing greater transparency and predictability about the way we approach each element of financeability should provide comfort to investors and make the sector more attractive to both equity and debt investors.

RIIO will first be used for the next transmission (TPCR5) and gas distribution (GDPCR2) price control reviews, which are due to be implemented from April 2013, and then for the sixth electricity distribution price control review (DPCR6, from April 2015). Where the implementation of any aspect of RIIO in a single step, and in particular our financeability principles, would create financeability concerns for an efficient network company, we will put in place transition arrangements to ensure financeability. Transition arrangements include the possibility of a glide path (over one price control period). Any increase in cash flow risk will be remunerated appropriately through the allowed return.

We recognise that there are a number of detailed implementation issues that need to be resolved as part of the price control review processes. We will continue to engage with stakeholders as we take these issues forward.

Chapter 1
Introduction

Introduction

1.1 RPI-X@20 is our comprehensive review of how we regulate Britain's energy networks[5]. We have looked ahead, on behalf of consumers, to ensure that we have a regulatory framework capable of meeting current and future challenges.

1.2 In July 2010 we consulted on a set of 12 recommendations for a new regulatory framework, known as the RIIO model. These recommendations are set out in the section above on RPI-X@20 conclusions. Following receipt and consideration of responses to the consultation as well as discussions with investors, network companies, consumer groups, government and other stakeholders, the Authority has taken its final decision on RIIO. **This paper sets out the Authority's decision to implement Sustainable Network Regulation using the RIIO model for future price controls. RIIO is designed to promote smarter gas and electricity networks for a low carbon future.**

1.3 Much of the substance of this document, and the accompanying handbook, is unchanged from our July Recommendations documents. The structure purposely mirrors that of the July documents. However, both this document and the handbook have been updated to reflect that they comprise the Authority's decision on the RIIO model, to incorporate summary feedback on our recommendations and our consideration of this, and to clarify our recommendations in some areas.

1.4 Responses to the Recommendations consultation were generally supportive of the principles underpinning the RIIO model, with the majority of outstanding concerns related to issues that will be resolved during implementation of the framework. However, following consideration of feedback on the Recommendations consultation, we have made two amendments to the RIIO model. These are:

- to confirm that we intend to retain the RPI as the inflation index within the price control for the next transmission and gas distribution price controls, but will keep the appropriate index under review for future reviews in the event that a mature market for CPI-indexed bonds develops
- to clarify that we will take into consideration relevant equity, as well as credit, metrics in assessing financeability.

1.5 The framework will first be applied at the next transmission and gas distribution price control reviews (to be implemented in April 2013) and then in the sixth electricity distribution price control review (DPCR6, from April 2015). We will continue to consider a number of points of detail raised in the responses that are relevant for the forthcoming price control reviews. We will also consider implications of changes in the price control framework for independent network operators when we review their regulatory framework. When implementing the framework at price control reviews, we will ensure it is consistent with prevailing domestic and European legislation, particularly the EU third internal energy package[6].

1.6 This document aims to provide an accessible overview of our final decision on the RIIO model and is aimed at a wide range of interested parties. We provide further details on how we envisage the regulatory framework will work in a more technical, detailed handbook on the RIIO model[7].

[5] We have looked at how to set price controls for the monopoly energy network companies (distribution network operators, gas distribution networks and transmission operators). We did not consider other aspects of how we regulate energy network services, including gas capacity auctions, gas entry and exit arrangements, electricity transmission access arrangements and system operator incentives.

[6] The Department of Energy and Climate Change (DECC) is leading on the implementation of the Third Package in GB, which must in most part be implemented by 3 March 2011.

[7] 'Handbook for implementing the RIIO model', available from: http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf

Chapter 2
Introducing the RIIO model

Chapter 2 summary

We explain how energy network companies may need to change to deliver the networks needed for a sustainable energy sector. We provide an overview of the form that the RIIO model will take, confirm its objectives and discuss interactions between its implementation and the wider industry structure.

Conclusions in chapter 2

1 **Objective:** The overriding objective of energy network regulation 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.

2 **Industry structure:** The framework will be implemented under the current industry structure. GEMA will keep under review the need to revisit the alignment of transmission and system operator incentives in gas and electricity, any formal electricity distribution system operator role, and other issues.

Introducing the RIIO model

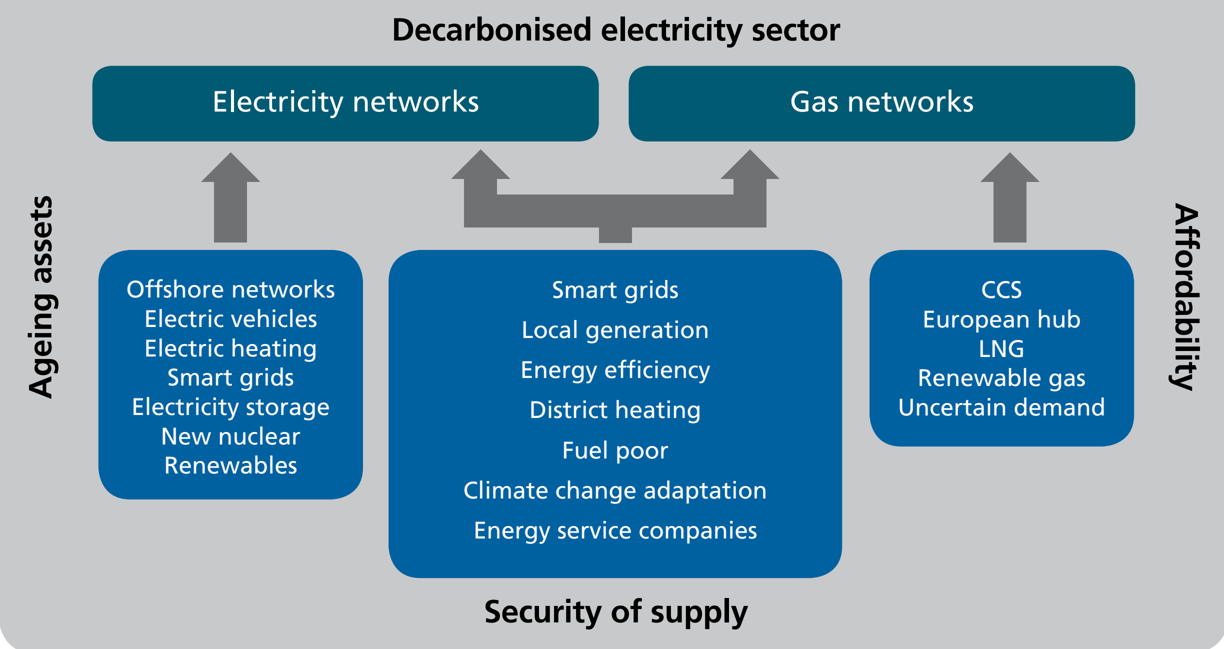
2.1 Energy networks provide the physical link between suppliers of gas and electricity and domestic and business consumers. They are owned and operated by privately owned companies who enjoy territorial monopolies.

2.2 As such, they are subject to regulation by Ofgem, with their duties and obligations set out in licence conditions and legislation. This includes the duty to ensure that they develop and maintain an efficient, co-ordinated and economical system to those who wish to connect energy onto the network (generators in electricity, shippers in gas, independent network operators and interconnectors) and those that wish to take energy from the network (business and domestic consumers – with retail contracts with supply businesses – and interconnectors). To do this they must understand and anticipate the changing needs of consumers of network services, and respond appropriately.

Changes in the energy sector

2.3 The energy sector is in a period of significant change. As shown in Figure 2, the changes are primarily driven by the need to deliver a low carbon economy - with a target of 80 per cent reduction in greenhouse gas emissions by 2050 and decarbonised electricity generation by 2030 – while maintaining security of supply. The drivers of change will continue to evolve. Network companies and the regulatory framework will need to adapt accordingly.

Figure 2: Challenges facing the energy sector



Changes in the energy networks

2.4 These changes in the energy sector are expected to alter the nature, scale and location of demand for gas and electricity network services. Network companies also need to make changes because of their own ageing assets. As we discussed in July, there is significant uncertainty about what the networks need to do to meet these challenges and opportunities. But they are likely to need to:

- understand better the new and changing needs of existing and future consumers
- invest in new capital assets and new operating solutions
- undertake more innovation, both technological and commercial
- focus on what is needed for the long term given the time horizons associated with the sustainable energy sector (e.g. the 2050 targets)
- continue to look for lower cost ways of delivering economic and efficient network services
- consider alternative delivery options given uncertainty about how best to deliver
- develop new commercial relationships with users of the network and end consumers, to enable them to meet the challenges together.

2.5 Energy networks are vital to the delivery of the sustainable energy sector. We think it is important that they are rewarded where they take a leading role.

2.6 As we have discussed throughout RPI-X@20, the existing regulatory framework has delivered well for consumers but it was designed for a different era. We do not think it would sufficiently encourage or reward network companies to take a leading role in meeting the challenges. It is important that the framework used to regulate network companies changes to encourage network companies to take on a full role.

What do we want the future regulatory framework to deliver?

2.7 The overriding objective of the RIIO model is to encourage energy network companies to:

- play a full role in the delivery of a sustainable energy sector
- deliver long-term[8] value for money network services for existing and future consumers.

2.8 These objectives need to be at the forefront of decision-making and we will consider, on an ongoing basis, whether and how they may need to change (e.g. if Ofgem's duties change). Written responses to the Recommendations consultation signalled widespread support for the regulatory framework to be designed and implemented to deliver these objectives.

The RIIO model – the vision

2.9 The new regulatory framework is based on the **RIIO model** – with **R**evenue set to deliver strong **I**ncentives, **I**nnovation and **O**utputs. The components of the RIIO model are outlined in Figure 1 above. RIIO is designed to drive smarter and more sustainable networks to deliver a secure and low carbon energy sector and long-term value for money for consumers. Figure 3 sets out the key elements of the RIIO model that will help to achieve this.

[8] 'Long-term' could mean different things in different sectors; the relevant time scale will depend on the specific decisions being made. We would expect the length of time relevant for delivering value for money to be influenced by government targets for 2020, 2030 and 2050 and by the long-life of network assets (e.g. 30 to 40 years). It would also be influenced by the expected time over which new technologies and new ways of delivering would be expected to have an impact on costs (e.g. 10 to 15 years).

Figure 3: Components of Sustainable Network Regulation

Eight-year price control framework

- **Incentive-based** upfront control
- **Longer-term** context
- **Clear outputs** to be delivered
- **Rewards** for efficient delivery; penalties if not
- **Engagement** with consumers of network services
- Ofgem **proportionate assessment**
- Potential **Competition Commission reference**, triggered by network company or third party concerns

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Innovation stimulus package

- Outside of price control framework
- **Build on LCN Fund**
- **Innovation** to deliver sustainable energy sector
- Discretionary rewards for **commercial innovation**
- Open to network companies and **non-network parties**
- **One for gas and one for electricity**
- **Time-limited**

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Role for third parties in delivery (option in tool-kit)

- Option to ask companies to provide **market testing evidence**
- Option for **third parties to be responsible for delivery** only if:
  - » material and separable projects;
  - » expected long-term benefits greater than expected long-term costs; and
  - » no risk to timely delivery and system integrity

2.10 The RIIO model will require the development of a transparent compact, with network companies setting out what they are expected to deliver and Ofgem providing clear financial incentives for them to deliver long-term value for money for existing and future consumers. Under RIIO, network companies, backed up by effective engagement with stakeholders and incentives, will work out how best to deliver. Companies that rise to the challenge and deliver for consumers will be rewarded, in terms of financial returns and a lighter touch regulatory approach that frees up management time to focus on running the networks.

2.11 Those that do not will see real and material downside, including below average returns and greater regulatory scrutiny. They may also face a risk of enforcement action and potential licence revocation.

2.12 We are committing to the transparent principles underpinning the RIIO model, including strong incentives to deliver efficiently and clear principles on how we will ensure network companies that deliver efficiently can raise required financing at a reasonable cost to consumers. We will not micro-manage how networks make decisions, how they deliver or how they finance themselves. However, we will take action on behalf of existing and future consumers, where network companies fail to meet the challenges.

2.13 The RIIO framework will apply across each of the four gas and electricity networks, although the way it is implemented may vary depending on the context and specific issues arising at price control reviews.

2.14 RIIO is a transparent, proportionate upfront price control framework that sets out:

- what outputs network companies need to deliver, reflecting views of stakeholders, the need to facilitate competition in supply (including potential competition in energy services) and statutory requirements on network companies and the Authority
- an upper limit on the revenue network companies are allowed to raise from consumers over an eight-year period to deliver these outputs efficiently
- clear principles on how the allowed return will be set and on how we will balance the revenue raised from existing and future consumers to ensure that efficient network companies are able to raise required finance at a reasonable cost to consumers
- opportunities to earn higher returns by responding to incentives to deliver outputs efficiently over time, developing innovative (technical and commercial) delivery solutions where appropriate
- risks of earning lower returns if outputs are not delivered or are not delivered efficiently
- transparent conditions under which the price control might change during the price control period to reflect embedded uncertainty mechanisms
- the potential for network companies and non-network parties to get partial financial support, and rewards, for technical and commercial innovation projects through an innovation stimulus package
- the option for third parties to be more involved with delivery
- transparent principles on how we and network companies will effectively engage with stakeholders, and public guidance on how the Authority will consider price control modification requests from third parties reflecting legitimate and material public interest concerns with our final proposals.

2.15 We are building on the principles and practices of the RPI-X framework. We have taken the elements that deliver benefits effectively, adapted and developed other elements, and added new elements to enhance the framework that we have been using for more than 20 years. When implementing the RIIO model at price control reviews, we will ensure that our decisions are consistent with prevailing domestic and EU legislation (including the third package).

Industry structure and implementation

2.16 RIIO can be implemented effectively under the existing industry structure. If there are changes in the industry structure (e.g. an increased role for energy service companies) these should be facilitated under the RIIO model.

2.17 However, as outlined in the Recommendations consultation, we will keep under review the interactions between delivery of the objectives of the price control framework and the prevailing industry structure. In particular, we will keep under review the alignment of incentives between the transmission owners (TOs) and the national electricity transmission system (NETS) system operator (SO) and the gas national transmission system (NTS) SO and lessons from offshore transmission.

2.18 For example, we will assess in the business plans for TPCR5 the extent to which the TOs have considered a wide range of options (e.g. charging and access rule changes as well as infrastructure solutions) for delivering outputs, including those relating to reliability and availability of network services. Where we have concerns that the incentives cannot be aligned appropriately within the existing industry structure, we will consider whether further change is warranted. We will consult thoroughly on any proposed changes and may, if appropriate, seek legislative change.

2.19 We will also keep any changes in the structure of distribution sectors under review. We expect to learn from experiences during the current electricity distribution price control period (DPCR5) and from the use of the Low Carbon Networks Fund (LCN Fund)[9]. We would also consider the implications of third package implementation.

Better regulation

2.20 Taking the views of stakeholders (including investors) and our duty to consider 'better regulation' principles into account, we have designed a framework that is transparent and proportionate, and provides greater certainty and predictability. The outputs-led approach, new business plans, proportionate assessment, and the longer price control period will enable network companies, Ofgem and stakeholders to focus effort where it is expected to add most value. We are committing to transparent principles that will underpin decisions at price control reviews. To ensure effective engagement we aim to continue to be transparent in our decision making.

2.21 We have sought to strike a balance between limiting the complexity in the framework and the need to ensure that the outputs regime and incentive mechanisms are sufficiently robust to protect consumers' interests. Where there is complexity it should largely be 'behind the scenes'; understood by Ofgem and network companies to ensure the incentives work as intended. Efforts will be made to ensure that we and the network companies explain the framework and what is being delivered in an accessible way to stakeholders.

[9] Further information on the Low Carbon Networks Fund can be found at: http://www.ofgem.gov.uk/Networks/ElecDist/lcnf/Pages/lcnf.aspx

Chapter 3
Price control review process and the role of stakeholders

Chapter 3 summary

We set out our decision on the price control review process and on the role of stakeholders in the process. We explain our decision to publish guidance on how the Authority will consider requests from third parties or network companies to refer a price control licence modification request to the Competition Commission.

Conclusions in chapter 3

3 **Enhanced engagement:** Stakeholders will be given greater opportunities to influence Ofgem and network company decision making.

4 **Third party modification requests:** Alongside this decision document, we have published public guidance on how GEMA would respond to a request from a third party for GEMA to exercise its discretionary power to make a modification reference to the Competition Commission on the basis that our price control determination may operate against the public interest. We will keep the role of the guidance under review, particularly in light of developments that take place as a result of the implementation of the EU third internal energy package.

Price control review process and the role of stakeholders

3.1 Adopting the RIIO model will have implications for the price control review process, particularly in relation to how and when price control decisions are made and in relation to the role of stakeholders in the review.

Price control review process

3.2 In our July 2010 Recommendations consultation we explained that the price control review process would need to change to reflect differences between RIIO regulation and the existing RPI-X framework. We emphasised that under RIIO the price control review would be conducted within a similar timeframe to now; around two years. There would be four stages to the review, with much of the work by network companies, Ofgem and stakeholders undertaken earlier than in the past. On 30 July 2010, we published our draft timetables for the forthcoming transmission and gas distribution price control reviews[10]. These have been developed to be consistent with the indicative process set out in our Recommendations consultation.

3.3 Respondents to the Recommendations consultation made limited comments on the process that we proposed for the price control review. A number of respondents did, however, note that the price control would be relatively more front-loaded and that we would therefore need to allocate sufficient resource to reflect this.

3.4 We have decided to take forward our recommendations on the price control review process. The process set out in chapter 2 of our handbook on RIIO regulation provides an indicative overview of how reviews will be conducted. The exact timetable for each review will be determined at the start of the price control review, reflecting specific circumstances for the sector at the time.

Role of stakeholders in the price control review

3.5 In our Recommendations consultation we set out that under RIIO regulation stakeholders should have greater opportunities to influence both our and network company decisions, through enhanced engagement. In particular, we emphasised that we would:

- encourage network companies to engage proactively with consumers on an ongoing basis. This includes developing commercial relationships with users of the network that could play a role in the delivery of a sustainable energy sector, and building on and developing relationships with other key stakeholders (e.g. environmental interest groups)
- develop our stakeholder engagement process for each price control review, with the approach used reflecting those issues that stakeholders are most likely to wish to, and be able to, influence and the stakeholders involved

[10] Open letter consultation on Transmission Price Control Review 5 (TPCR5) – the way forward
http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=1&refer=Networks/Trans/PriceControls/TPCR5
and Gas Distribution Price Control Review 2 – The Way Forward
http://www.ofgem.gov.uk/Networks/GasDistr/GasDistrPol/Documents1/GDPCR2%20%20July%202010%20Open%20Letter%20FINAL.pdf

- consider how best to facilitate discussions between government, other regulators, network companies and stakeholders at each price review. This would need to take account of any implications for independent regulation that arise from implementation of the European third package.

3.6 Respondents to the Recommendations consultation expressed continued support for enhanced engagement by both Ofgem and the network companies. They thought this would help to improve the legitimacy of the regime, ensure outcomes were aligned with the needs of consumers and assist in meeting emerging challenges, particularly those associated with the transition to a sustainable energy sector. Many respondents noted, however, that the design of the arrangements would be critical to ensuring that the potential benefits were delivered. One respondent also raised concerns that the views that stakeholders expressed during network engagement would need to be considered in the context of the legal obligations that network companies will be required to fulfil.

3.7 Given the ongoing strong support for our recommendations in this area, we have decided to take forward enhanced engagement as a core element of the RIIO model.

3.8 The Authority, with its duty to protect the interests of existing and future consumers, will continue to take a balanced approach to assessing the price control. We will commit to providing a transparent explanation of how we have made our decisions and how we have considered the balance between existing and future consumers. We note the concerns that the results of network stakeholder engagement should be considered in the round alongside other obligations and recognise that we will need to have regard to the requirements with which network companies must comply when assessing the effectiveness of their engagement. We will also remain mindful of views expressed on how to facilitate effective engagement (by both us and the network companies).

3.9 Further details of how we will take forward enhanced engagement are provided in chapter 3 of the handbook.

3.10 We have initiated work on enhanced engagement for TPCR5 and GDPCR2 with:

- the establishment of output working groups which have met numerous times
- our first stakeholder event set to take place on 7 October
- the first price control review forum scheduled for 27 October[11].

3.11 A number of companies have also begun to initiate engagement with their stakeholders. We will continue to look for, and respond to, feedback on how we and network companies are engaging to ensure that our approaches adapt as needed during a price control review and from one price control review to the next.

Third parties and Competition Commission references

3.12 In our Recommendations consultation we proposed to publish guidance on how the Authority would take account of and respond to requests, from third parties or network companies, for a modification proposal to be referred to the CC on the basis that our final price control determination could operate, or be expected to operate, against the public interest. This would provide a transparent framework for parties to challenge the merits of a price control determination, and would therefore complement the judicial review process[12]. We published draft guidance alongside the consultation[13].

[11] Further information on the stakeholder engagement process for TPCR5 and GDPCR2 can be found at: http://www.ofgem.gov.uk/Networks/PriceControls/Pages/PriceControls.aspx
[12] Judicial reviews are a challenge to the way a decision has been made, rather than the rights and wrongs of the conclusion reached. The court is unlikely to take a view on what the 'correct' decision is.
[13] A Guide to Price Control Modification References to the Competition Commission - Licensee and Third Party Triggered References, available from: http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/final%20mod%20guidance.pdf

3.13 Responses to our consultation highlighted that while a number of non-network parties are supportive of the proposals, many of the network companies continue to have concerns that these provisions could increase uncertainty and could lead to delays in the process. They considered existing provisions, in the form of judicial review, to be sufficient to allow third parties a form of redress where they have concerns with final price control proposals. They also questioned whether it was credible that we would refer a case to the CC where we had reached final proposals following an extensive process of assessment and consultation. Two network companies noted their preference for legislation to allow a formal right of appeal to be implemented. Consumer Focus welcomed the clarity that the guidance provided but were keen to obtain further detail about how the process would work in practice.

3.14 Given previous discussion and debate we are aware that stakeholders have strong views on this issue. As set out in chapter 4 of the handbook, we are also aware that the detailed design of any challenge or appeal mechanism is key to realising the potential benefits of such mechanisms.

3.15 We remain of the view that transparent provisions to allow third parties to challenge our price control determinations are an integral element of enhanced engagement. In particular, we anticipate that such provisions would encourage a range of parties to engage effectively throughout the price control review process.

3.16 There is already common understanding of how our decision and any subsequent CC reference would work should a network company disagree with our final price control proposals, or the associated licence modification. This is based on precedent in other regulated sectors (e.g. water). However, there is no published guidance on how we would make a decision to refer. There is no such common understanding on how we would respond should a third party write to the Authority setting out a material and legitimate concern that our price control determination could operate, or be expected to operate, against the public interest.

3.17 By publishing guidance on how we would respond should a network company not agree to our final price control proposals or a third party write to the Authority setting out a material and legitimate concern, we are clarifying the way that the existing arrangements would work in practice. We are working within the confines of the existing statutory scheme and our guidance is intended to provide clarification. We are not introducing a new statutory mechanism.

3.18 We have published an updated version of the guidance document alongside this decision document, which takes into consideration comments received in response to the Recommendations consultation.

3.19 We will keep under review the case for implementing a full right of appeal for third parties through legislation in light of experience under the new guidance. We also note the DECC consultation on the third package and, in particular, their consultation on implementing binding decisions[14]. The outcome of the Department of Energy Change and Climate Change's (DECC's) consultation could have implications for our guidance on third party references to the CC. We will continue to engage with government on the development of policy in this area.

[14] Implementation of the EU Third Package: Consultation on licence modification appeals available from: http://www.decc.gov.uk/en/content/cms/consultations/imp_eu_third/imp_eu_third.aspx

Chapter 4
Determining what network companies need to deliver

Chapter 4 summary

We set out our decision on the output categories that will be included in future price control determinations.

Conclusions in chapter 4

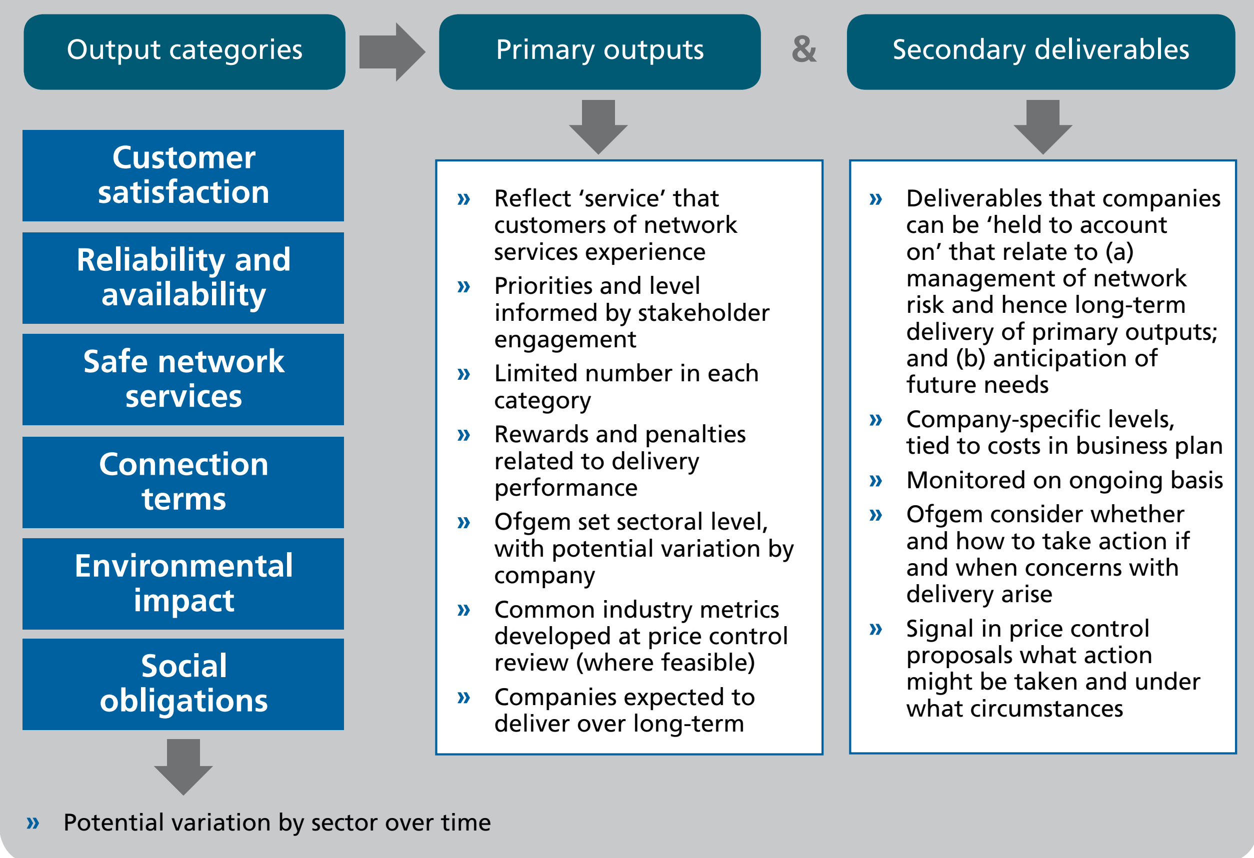
5 **Outputs-led:** At the price control review we will set the outputs that network companies are expected to deliver to ensure safe and reliable services, non-discriminatory and timely connection and access terms, customer satisfaction, limited impact on the environment and delivery of social obligations.

Determining what network companies need to deliver

4.1 In our Recommendations consultation, we emphasised that outputs would be at the heart of the regulatory framework for energy networks. The outputs would be consistent with the objectives of the framework and, in particular, would be set to encourage energy network companies to play a full role in delivery of a sustainable energy sector.

4.2 Figure 4 summarises the framework that we set out in July.

Figure 4: Determining outputs



4.3 There was general support for an outputs-led approach with a number of parties expressing strong support for our proposals to incorporate outputs at the heart of the framework. One respondent, however, had concerns that we had not sufficiently justified the case for the use of outputs within the regulatory framework.

4.4 Respondents were broadly supportive of the six outputs categories we proposed and the principles that we put forward for the development of primary outputs; although one respondent did not think we had gone far enough on the environment and noted that a low carbon output category was needed. A number of respondents highlighted that there was a lot of work to do in terms of developing a set of credible and reliable primary outputs that could be relied upon for an eight-year control period.

4.5 We note the comment from one respondent that we did not include sufficient justification for the use of outputs in the Recommendations consultation. However, we would highlight that during RPI-X@20 we have undertaken significant work examining the case for the use of outputs[15] and the experience of using outputs in other industries[16]. We also received widespread support from a range of stakeholders as we developed our recommendations in this area.

4.6 We are keen to ensure that the outputs developed for future price controls are a comprehensive reflection of the outcomes that matter to the users of the network, as well as being material, controllable, measurable, comparable, applicable and legally compliant[17]. The primary outputs would be set to facilitate efficient competition in supply (e.g. competition amongst independent distribution network operators, independent gas transporters, independent connection providers and, potentially over time, between energy service companies). Where these principles are not all met we would consider implications for the strength of any financial incentives for delivery.

4.7 We anticipate that this would enable us to distinguish between cost reductions that reflect genuine efficiency and those achieved at the expense of reduced delivery. An outputs-led approach would also enable us to hold the network companies accountable for delivery without bias towards particular delivery methods, providing strong incentives for innovation that drives efficient outcomes. Combined, we think these elements would make the outputs framework different to models used elsewhere.

4.8 We also note comments made that the framework should include a specific category related to low carbon to highlight the importance of moving to a low carbon economy. We recognise the importance of maintaining focus on the transition to a low carbon energy sector. Indeed this drives the design of the RIIO model. We will keep the need for a specific low carbon category under review during TPCR5 and GDPCR2 but are presently of the view that the proposed categories represent the areas in which network companies should demonstrate delivery in facilitating the transition to a low carbon energy sector.

[15] The report 'The use of RPI-X by other network industry regulators, CEPA, 2009' included an assessment of output definition and the benefits of such an approach and is available from: http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=3&refer=Networks/rpix20/ConsultReports. We set out the potential parameters for an outputs-led framework in our working paper on 'A modified ex ante framework', available from: http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=12&refer=Networks/rpix20/WorkingPapers.
We also included an assessment of the benefits associated with the use of outputs in our Emerging Thinking consultation document, available from: http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=42&refer=Networks/rpix20/ConsultDocs

[16] A review of the rail and water regulatory models, CEPA, 2009, available from: http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=21&refer=Networks/rpix20/ConsultReports

[17] We explain these criteria further in Chapter 6 of our handbook.

4.9 Taking account of responses to the consultation, and early work with network companies and stakeholders on outputs for TPCR5 and GDPCR2, we have decided to take forward the outputs-led framework in future price control reviews. We acknowledge the considerable work required to implement the outputs-led framework, and the potential challenges we could face, particularly identifying the right primary outputs and secondary deliverables and deciding how to incentivise them. This process is underway in the two reviews first implementing the RIIO model (TPCR5 and GDPCR2). Progress has been made through industry working groups on the type of primary outputs that may be used in relation to: environmental impact; customer satisfaction and conditions for connection; and reliability and availability[18].

4.10 Further details of how outputs will be developed and incorporated in future price controls are provided in chapter 6 of the handbook.

[18] Details of the work that has been progressed on the outputs for TPCR5 is available from: http://www.ofgem.gov.uk/Networks/Trans/PriceControls/TPCR5/WorkingGroups/Pages/WG.aspx and details of the work progressed on the outputs for GDPCR2 is available from: http://www.ofgem.gov.uk/Networks/GasDistr/GDPCR2/WorkingGroups/Pages/WG.aspx

Chapter 5
An upfront price control

Chapter 5 summary

We set out our decision on the nature and length of the price control framework.

Conclusions in chapter 5

6 **Ex ante control:** We will set an upfront price control, incorporating a return on the regulatory asset value and inflation indexation. We will retain the retail prices index (RPI) as the inflation index for fifth transmission price control review (TPCR5) and the second gas distribution price control review (GDPCR2) but will keep the case for moving to consumer prices index (CPI) under review at future reviews.

7 **Length of the price control:** The price control will be set for eight years, with provision for a mid-period review of the outputs that network companies are required to deliver. Uncertainty mechanisms will be implemented where this is consistent with the objectives of the framework and with ensuring network companies can raise required finance in a timely manner and at a reasonable cost to consumers. We will review the length of the control period at future price control reviews if needed.

An upfront price control

5.1 In our Recommendations consultation we proposed to retain an upfront incentives-based price control, incorporating a return on the regulatory asset value (RAV)[19] and inflation indexation. This recommendation was widely supported by stakeholders and we have decided to take this forward within the RIIO model. Our decisions on the choice of inflation index and on the length of the price control are also set out here.

Inflation indexation

5.2 In our Recommendations consultation we discussed the merits of retaining the retail prices index (RPI) as the inflation index and the merits of a potential move to consumer prices index (CPI) indexation. We expressed an initial preference for retaining RPI indexation and keeping the case for a move to CPI under review should a mature market in CPI-linked bonds develop. We emphasised that we would test our analysis with a range of stakeholders over the summer.

5.3 In responses to the Recommendations consultation there was universal support for retaining RPI as the inflation index for the price control and a number of respondents explicitly agreed with the rationale that we had set out for retaining the RPI. We have also discussed our analysis and assumptions with a range of experts including leading academics in the field, the Bank of England and the Debt Management Office (DMO). We have had strong feedback, particularly from the academics, that it is essential that there is consistency between the indexation of the price control and the basis for establishing the allowed return. Their view on whether RPI or CPI is preferable for indexing the price control depends on the maturity and liquidity of the respective index-linked bond markets. The DMO noted that, at present, there is limited likelihood of CPI indexed bonds being issued in the near future. Further, should such a market emerge, several parties emphasised the need to allow the new market to 'settle down' before we use it for price control purposes.

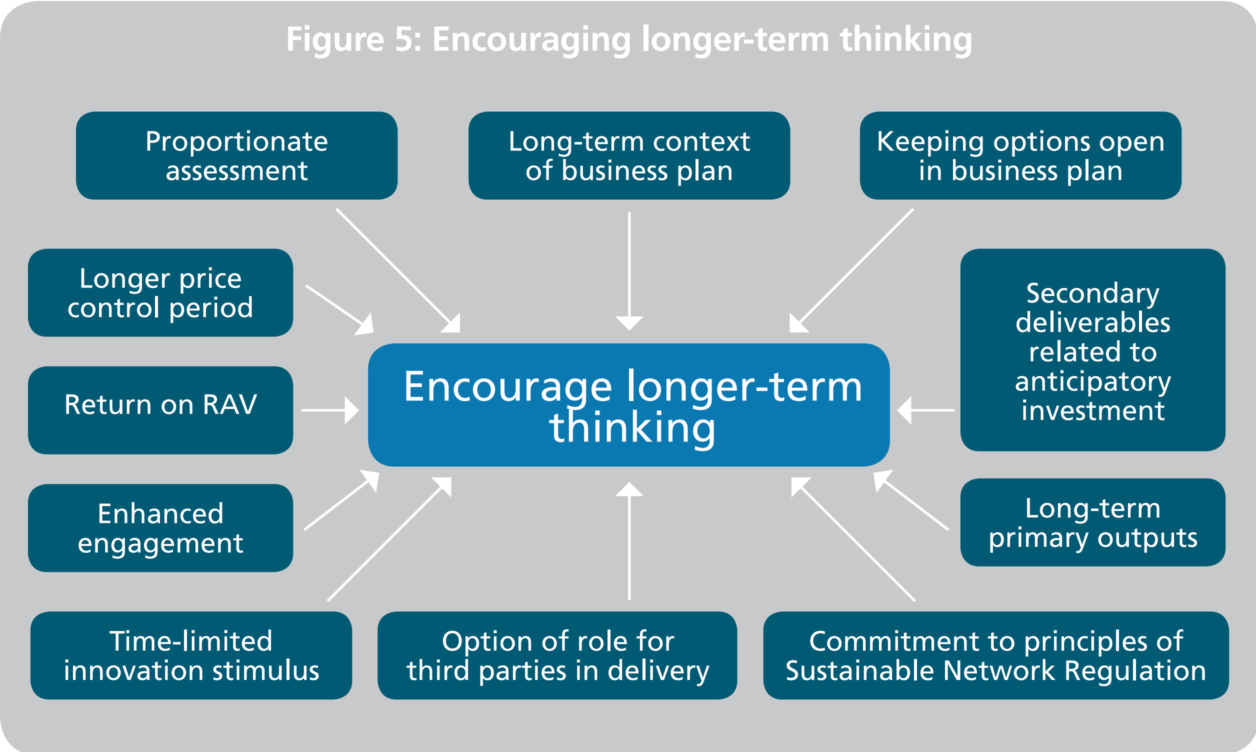
5.4 Taking account of the written responses and our discussions we remain of the view that it is appropriate to retain RPI indexation for the forthcoming transmission and gas distribution price controls (TPCR5 and GDPCR2). We will continue to monitor developments in relation to CPI indexed bonds and will consult on the appropriate index for future price controls should there be a case for change.

Longer-term thinking and the length of the price control period

5.5 In our Recommendations consultation we emphasised the importance of network companies, stakeholders and Ofgem thinking longer term when considering what needs to be delivered and how best to deliver. We recommended a package of measures aimed at encouraging network companies to identify ways of delivering better value for money over the longer-term. The key elements of this package are illustrated in Figure 5.

5.6 Respondents to the consultation were supportive of these measures and welcomed the development of a framework designed to encourage changes in this direction. We have therefore decided to implement RIIO regulation with a view to encouraging longer-term thinking. Details of each of these elements of RIIO are provided in the handbook.

[19] The RAV is a regulatory construct that reflects a company's historical investment, adjusted for inflation (currently RPI).



5.7 Our July recommendations also included a proposal to extend the length of the price control from five to eight years. We think that by providing a firm commitment to revenue for a longer period than now, we would be sending a strong signal that we have moved away from short-termism. There would be incremental benefits for consumers, with network companies expected to make different decisions over a longer price control period to those they make with a five-year control period. These are in addition to the benefits from the efficiency and output incentive regimes.

5.8 There would also be benefits in terms of lower regulatory burden, with comprehensive reviews taking place less frequently.

5.9 Given the potential for increased uncertainty under a longer control period, we proposed to provide clarity on when and how the price control would adjust during the period. This included provision for a mid-period review of output requirements to enable any fundamental change in what is expected of network companies, for example due to a change in government policy, to be taken into account quickly. The mid-period review of outputs would only result in changes to the price control should there be a material change in what is required of network companies. We would not look to change incentive mechanisms, the allowed return or other price control parameters through this mechanism, unless it was required due to a change in the outputs.

5.10 There was a mixed response to our proposed extension of the price control period to eight years. While some recognised the benefits that it could deliver in terms of encouraging longer-term thinking, a number of the network companies were of the view that extension of the price control could lead to greater risk and suggested that it would only have a marginal impact on longer-term thinking. A number of concerns were expressed with respect to the mid-period review of outputs and, in particular, the ability to maintain the narrow scope of the review. Respondents were concerned that the mid-period review may turn into a full blown review and therefore effectively reduce the price control from five to four years.

5.11 We think that these concerns can be mitigated through careful design of automatic adjustment mechanisms (e.g. inflation indexation), uncertainty mechanisms and a clear articulation of how the mid-period review of outputs will work and what will and will not be reviewed. This will be set out as early as possible at each price control review. Investors and consumers of network services will therefore be better able to understand and make assumptions about how revenue might evolve during the period.

5.12 As set out in July, this is not about an increased number of, or more complicated, uncertainty mechanisms. Indeed, we aim to curb the number of uncertainty mechanisms through the application of our principles on when and how such mechanisms would be used.

5.13 We have therefore decided to proceed with a default price control period of eight years. However, it will be a matter for the individual price controls to determine whether an eight-year control period is appropriate given the specific factors faced in the relevant industry at the time.

5.14 We will review the impact of moving to an eight-year control in the future, considering whether to extend the control length further or whether it is appropriate to move back to a five-year period. Any changes would be consulted on at the time.

5.15 Further details on how we will implement automatic adjustment and uncertainty mechanisms and the design of the mid-period review of outputs can be found in chapter 11 of the handbook.

Chapter 6
Determining the revenue
to be raised from consumers

Chapter 6 summary

We set out our decision on how base revenue will be set, reflecting our proportionate assessment of well-justified business plans. This includes our decision on the potential role for third parties in delivery. We also set out our decision on how incentives and uncertainty mechanisms will be designed at price control reviews.

Conclusions in chapter 6

8 **Proportionate assessment:** We will adopt a transparent and proportionate approach to assessing the price control package, with the intensity and timescale of assessment reflecting the quality of an individual company's business plan and its record for efficient output delivery. Under this approach, we would be able to conclude the price control process early for some companies.

9 **Option to give third parties a greater role in delivery:** The regulatory tool-kit will include the option to require a company to provide market testing evidence to support its business plan proposals. We will also have the option to involve third parties in delivery and ownership of large and separable projects, where this is expected to drive innovation, long-term value for money and/or more timely delivery.

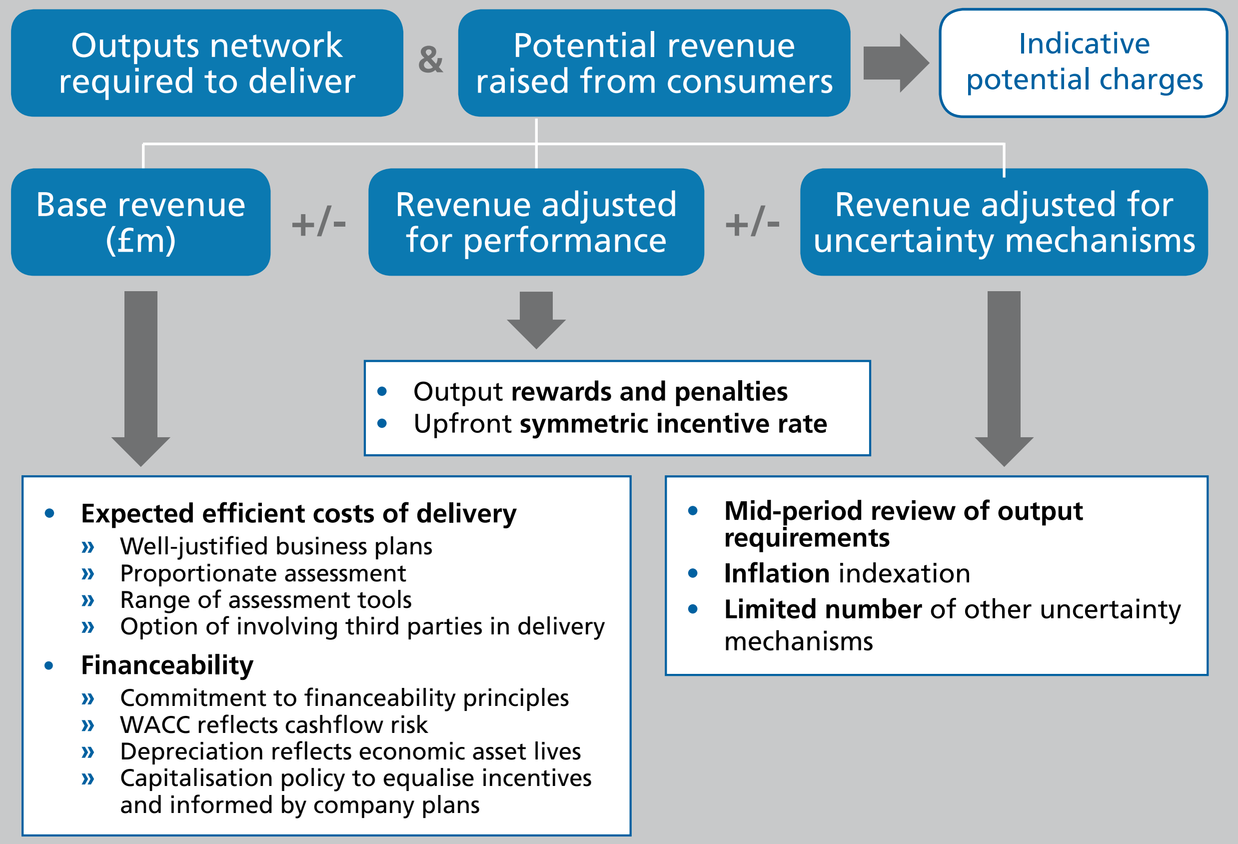
10 **Incentives:** There will be transparent rewards/penalties related to output delivery, including a backstop threat of using our existing powers for enforcement action and potential licence revocation for persistent non-delivery. There will be transparent, upfront, symmetric efficiency incentive rates for under-and overspend. Incentives will be calibrated to ensure they provide long-term value for money.

Determining the revenue to be raised from consumers

6.1 The price control sets out what network companies are expected to deliver and what potential revenue they can earn from existing and future consumers for delivering those outputs. To facilitate effective engagement, and to enable stakeholders to understand potential implications of the price control, network companies will be expected to provide an indication of how their proposals might impact on network charges[20]. Figure 6 sets out the key components of the price control under the RIIO model.

6.2 The written responses we received to our Recommendations consultation did not raise any objections to this over-riding framework for setting the price control and we have therefore decided to take this forward for future price control reviews. We set out our decision on specific aspects below. Further details are provided in the handbook on RIIO regulation. Chapter 8 provides an overview of proportionate assessment, chapter 9 outlines our approach to incentivising the delivery of outputs, chapter 10 sets out our approach to efficiency incentives, chapter 11 provides an overview of uncertainty mechanisms and chapter 13 outlines our approach to a greater role for third parties in delivery of outputs.

Figure 6: Setting an upfront price control



[20] We recognise that it will only be feasible to provide indications of the potential changes in charges and we would not expect the network company to be held to any specific level of charges. We will encourage network companies to provide those that pay network charges with the relevant information to enable them to forecast the potential impact of network company choices, and our price control decisions, on future network charges.

Well-justified business plans and proportionate assessment

6.3 In our Recommendations consultation we emphasised that under the RIIO model the onus would be on the network companies to determine how best to deliver outputs over time, reflecting on the results of their stakeholder engagement and subsequently developing well-justified business plans.

6.4 We also set out how we would use the Information Quality Incentive (IQI) mechanism in each of the four sectors to encourage network companies to provide plans that reflect best available information about future efficient expenditure requirements. Our assessment of the expected efficient costs of delivery would be combined with the assessment of financing costs (see chapter 7) to form a view on base revenue for each company.

6.5 We said that we would use companies' well-justified business plans, as well as other available information, to form a view on the expected efficient costs of delivering outputs and long-term value for money. We would adopt a proportionate approach to assessing business plans, focusing attention and effort where it is expected to generate most value, and providing the opportunity for the best performing companies to be "fast tracked", i.e. agree the terms of their price control up to a year earlier than implied by the standard price control process.

6.6 We published our initial business plan guidance for TPCR5 and GDPCR2 as part of the July 2010 letters for these reviews and are currently consulting on this[21].

6.7 Network companies were generally supportive of our proposals on well-justified business plans. They were of the view that, although presenting their plans in this way would represent a challenge for them, it would help them to focus on the longer term. They were, however, keen to obtain greater clarity on how exactly the different requirements for business plans would be interpreted under RIIO.

6.8 Limited views were expressed by respondents on our proposals regarding the IQI. However, those that did respond were supportive of retaining the IQI and suggested that this would facilitate accurate information provision, with one respondent also explicitly welcoming extending the IQI to all energy network sectors.

6.9 There was wide-ranging support for the adoption of a proportionate approach to assessing business plans, with many respondents noting that this would help to ensure that our resource is focused where it could deliver most benefit whilst providing well-placed incentives on network companies. However, a number of respondents expressed concerns about how proposals on fast-tracking would work in practice. In particular, there were concerns that, where companies were fast tracked, this could reduce opportunities for stakeholder engagement and introduce the risk that fast-tracked companies are ultimately subject to a more challenging settlement than other network companies.

6.10 We recognise the concerns raised. However, as set out in chapter 3 it will be important for network companies to engage with their stakeholders on an ongoing basis, not just as part of the price control review. This will ensure that they have visibility on the needs and preferences of their consumers and are able to effectively factor these into the development of their business plans at price control reviews.

[21] The 'Open letter on Transmission Price Control Review 5 (TPCR5) – the way forward is available from:
http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=1&refer=Networks/Trans/PriceControls/TPCR5/ConRes
and the letter regarding 'Gas Distribution Price Control Review 2 – The Way Forward' is available from:
http://www.ofgem.gov.uk/Networks/GasDistr/GDPCR2/ConRes/Pages/ConRes.aspx

6.11 In addition, for us to offer a company a fast track settlement, we will need to be convinced that the company's business plan is well-justified and provides long-term value for consumers based on a high-level assessment of the plan and the company's track record for delivery. If a company is fast-tracked its settlement will match, or almost match, its own well-justified business plan. However, it will be for the management of individual companies to determine whether they wish to accept a fast-tracked approach or whether they would prefer to have their business plan subject to further scrutiny by Ofgem.

6.12 We have therefore decided to take forward our recommendations on well-justified business plans, the IQI and proportionate assessment. As part of the consultation process for both TPCR5 and GDPCR2, we will consult on how proportionate treatment, including fast-tracking, will work in practice. Based on that consultation, we will set out clear and transparent guidance on the process, including the criteria we will take into consideration in determining our approach for each network company.

6.13 Further information on each of these aspects of RIIO is available in the associated handbook: chapter 7 for well-justified business plans, and chapter 8 for the IQI mechanism and proportionate treatment.

Encouraging delivery of outputs and long-term value for money

6.14 We set out in our Recommendations consultation that the RIIO model would include a set of incentive mechanisms designed to encourage network companies to deliver outputs over the long term and seek out innovative delivery solutions that are lower cost over time.

6.15 In addition, the framework would include strong backstop threats for network companies that persistently fail to deliver primary outputs. As now we would take enforcement action where outputs, specified in licences, were not being delivered. We would also make use of our powers to revoke a network company's licence if failure to deliver continued. These options would only be used in exceptional cases.

6.16 Respondents were generally welcoming of the proposed use of transparent rewards, penalties and backstop threats to encourage output delivery and efficiency under the RIIO model. Some respondents, however, noted that we would need to take care in designing and calibrating the incentives to ensure that these did not lead to any perverse incentives.

6.17 We remain committed to ensuring that those companies that deliver efficiently earn clear and significant rewards, whilst those that fail to deliver or deliver at high cost face real and significant downside.

6.18 Taking account of responses received to our Recommendations consultation, we have decided to implement the incentives-based framework. Details of the principles and issues we will consider when designing incentive mechanisms are set out in chapters 9 and 10 of our handbook on RIIO regulation.

Option of a greater role for third parties in delivery

6.19 In our Recommendations consultation we proposed that the RIIO model would include the option to require network companies to provide market testing evidence in their business plans where we have concerns about the level of costs or the design of a proposed solution to delivering outputs.

6.20 We also set out how we would include in the regulatory toolkit the option to give licensed third parties the revenue rights and obligations associated with the delivery of large and separable network projects and ownership of associated assets. In this context licensed third parties may be wider than the existing group of network licence holders. We would only consider initiating steps to explore the potential to give licensed third parties a greater role in delivery where faced with evidence that an existing network company may not be best placed to deliver at best value for consumers, for instance because the project is to some extent new or untested from the perspective of the incumbent. We may consider this option when setting revenue allowances.

6.21 These tools would be supported by a continued role for network companies to manage their own efficient procurement strategies under the RIIO model and provide evidence of how this has been achieved in their well-justified business plans.

6.22 Diverse views were expressed on our proposals to establish the option to give third parties a greater role in delivery. While non-network parties recognised that there were potential and significant benefits associated with third party delivery, network companies emphasised that they already outsource activities in response to incentives under the existing regulatory framework. They also expressed concerns about Ofgem's level of commercial and technical expertise to design and run a process that chooses third parties to assume responsibility for delivery. Of the respondents commenting on this proposal, all noted that we should attach importance to ensuring that the proposals effectively deliver the benefits envisaged. The importance of appropriate design and operation of the process for appointing third party licensees was also highlighted.

6.23 We note the continued concerns of network companies in relation to a greater role for third parties in delivery, including the role that we would take in this process. We remain of the view that, in certain situations, there could be potentially significant benefits either from actual or potential third party involvement in the delivery of outputs. In addition, as outlined in our Recommendations consultation, the option of giving third parties a greater role in delivery and asset ownership would only be initiated in circumstances where we are confident that the long-term benefits of having a third party responsible for these activities outweighed any long-term costs.

6.24 If the Authority were to initiate a process to seek to facilitate a greater role for third parties in delivery we would be responsible for designing and running the selection process. To facilitate this we would develop process guidance documents for participants, pre-conditions with which participants would need to demonstrate compliance and criteria for the assessment of proposals. In developing these elements, we would expect to build on policies and guidance developed in connection with the offshore tendering regime wherever possible. We would also be responsible for evaluating proposals and selecting a third party. In doing so, we would expect to cooperate closely with the NETS System Operator or gas NTS System Operator at all times.

6.25 Taking account of responses received to the Recommendations consultation we have decided to include these options in the regulatory tool-kit. The principles that we will follow when deciding whether to use the options are set out in the handbook on RIIO regulation. These principles are consistent with those set out in our Recommendations consultation. The detailed arrangements will be worked up further in the price control reviews, firstly TPCR5 and GDPCR2. Stakeholders will be provided with an opportunity to contribute to the development of policy in this area to ensure that the framework developed facilitates the delivery of benefits envisaged for consumers.

Uncertainty mechanisms

6.26 In our Recommendations consultation we set out the principles that we would consider when designing and implementing uncertainty mechanisms in the price control. We emphasised that network companies would have responsibility for managing normal business risk and that uncertainty mechanisms would only be used where they provide protection to consumers against the uncertainties faced by Ofgem in determining the revenue to allow for the forthcoming control period.

6.27 Respondents to the Recommendations consultation made limited specific comments with respect to uncertainty mechanisms. Those respondents that did comment were broadly welcoming of the transparent principles that we had set out for their use, noting that many of the tools that we had referred to were familiar. Some respondents pointed out that uncertainty mechanisms may need to be used more often in the future given the changing environment in which the network companies would be operating and our intention to lengthen the control period. Within this context, they highlighted that we would need to take care when using uncertainty mechanisms and have regard to the impact they would have on charging volatility and overall complexity.

6.28 In light of the responses to the Recommendations consultation on this issue, we have decided to commit to the principles for uncertainty mechanisms that we consulted on in July. We are mindful of the need to ensure that use of uncertainty mechanisms is consistent with delivery of the objectives of RIIO regulation and our commitment to providing strong incentives to encourage efficient delivery of outputs over the long term. Details of the principles that we will use for uncertainty mechanisms is set out in chapter 11 of the handbook on RIIO regulation.

Chapter 7
Ensuring efficient delivery is financeable

Chapter 7 summary

We set out our decision on how we will continue to ensure that efficient companies are able to finance their regulated activities under the RIIO model.

Conclusions in chapter 7

11 **Principles for ensuring efficient delivery is financeable:** We will ensure that efficient delivery of outputs is financeable by committing to published principles for setting a WACC-based allowed return to reflect the cash flow risk of the business over the long term. Financeability will be assessed in the round, including a cross-check against relevant equity metrics and credit rating ratios. As now, network companies will be expected to manage their business, including capital structure, efficiently to ensure they are financeable.

Ensuring efficient delivery is financeable

7.1 Our principal objective is to protect the interests of existing and future consumers. In carrying out its functions in accordance with the principal objective, the Authority must also have regard to the need to secure that licence holders are able to finance the activities which are the subject of obligations on them. This means that efficient network companies should be able to secure financing in a timely way and at a reasonable cost in order to facilitate the delivery of their regulatory obligations. This is also in the interests of consumers. However, it is important that the regulatory framework does not provide excessive returns, reward inefficiency or 'bail-out' a company that has encountered financial distress as a result of its own behaviour.

7.2 In our Recommendations consultation we set out our proposed principles for ensuring that efficient delivery is financeable and that the balance of costs paid by existing and future consumers is fair, reflecting the expected balance of benefits received from investment in network services. These principles are set out in Box 2.

7.3 On the day we published our RIIO Recommendations consultation, we held a city briefing event to launch RIIO regulation and introduce investors to the RIIO model. We have since had a number of meetings with investors and city representatives, as well as network companies, to discuss our recommendations in detail.

7.4 Feedback from the city event and bilateral meetings have highlighted that the investor community perceives the RIIO model, and financeability proposals, to be 'constructive'. Investors have been supportive of the improved transparency that the extension of the price control from five to eight years will deliver and welcome our commitment to a smooth transition to the financeability principles. They are supportive of the potential for network companies to beat the assumed cost of capital. They note that slower depreciation in electricity will provide opportunities for faster RAV growth while a more mechanistic approach to setting the cost of debt will reduce associated risk. Although some investors raised a concern that the wording in the recommendations document implied a bias in favour of debt over equity this was not our intent. We have clarified our approach below to remove this perception.

7.5 The main written responses on the financeability proposals were from the network companies. They noted the importance of this issue given the likely need for increased investment in coming price control periods. Some network companies welcomed the increased transparency that would be provided through our commitment to clear financeability principles but a number noted concerns that we may move away from the use of these principles in the future.

7.6 The main area of concern highlighted by the network companies related to our proposals on depreciation. While some of the network companies recognised the rationale for moving toward depreciation based on economic asset lives, they had concerns about the cashflow impacts that such an approach would have, particularly at a time when significant investment is likely to be needed. A number of companies also noted that although this proposal is intended to strike a fair balance between costs faced by existing and future consumers, the proposal was misplaced as current consumers are paying less than they should, given that pre-privatisation assets have already been fully depreciated. Many of the network companies suggested that we would need to carefully consider the appropriate transition arrangements to ensure that they have access to required finance given the investment needed to facilitate the transition to a low carbon energy sector.

7.7 A number of network companies had concerns about our proposed approach to indexing the cost of debt and expressed a preference for retaining the existing approach. Their concerns were particularly focused on the implications that this could have for future financing decisions and set out that it would be more important for the cost of debt to reflect future rather than historical costs.

7.8 Following consideration of the discussions that we had with investors at the city briefing event and with a range of stakeholders during bilateral meetings, as well as the written responses received to the Recommendations consultation, we have decided to commit to the financeability principles, set out in the Recommendations consultation. In line with our statutory duties, we will continue to ensure that all network companies that operate efficiently are able to finance the efficient delivery of their regulated activities and that we do not introduce excessive volatility into the relevant capital markets. We will seek to ensure that this is achieved through the development of appropriately targeted transition arrangements. As outlined above, we have also made some minor amendments to the wording of the financeability section in the handbook on RIIO regulation to clarify that we do not have a bias in favour of debt over equity.

7.9 Stakeholders have also indicated that they would like to understand how our approach to financeability will be applied in practice. These implementation issues will be taken forward as part of the individual price control processes. However, we recognise the need to provide further clarity as early as possible. Consequently, where possible, we will conduct further analysis for all sectors in autumn 2010.

7.10 As set out in our Recommendations consultation, we will consult on the 'numbers' associated with these principles at each price control review and will consult on any transition arrangements. In the December 2010 consultation documents for TPCR5 and GDPCR2 we will set out, for consultation, our initial views on the appropriate cost of equity and our preferred index for the cost of debt.

Box 2: Principles for financeability under the RIIO

- **Long-term view:** We will take a longer-term view of financeability, reinforced by regulatory commitment.
- **WACC based return:** We will use a real, weighted average cost of capital (WACC) based approach to setting the allowed return.
- **Notional gearing:** The size of the notional equity wedge will reflect the company's risk exposure and may vary within and between sectors, but only where there is material difference in the risk faced. The magnitude of the risk exposure will depend on the strength of the various output incentives and the uncertainty mechanisms of the package. In making any changes to the notional gearing between control periods, we will take into account the effect that this might have on a company's ability to finance itself, particularly where there is a decline in the notional gearing assumption.
- **Cost of equity:** We will set the cost of equity based on a capital asset pricing model (CAPM) approach but will also consider evidence from other models.
- **Cost of debt:** The cost of debt embedded in the allowed return will be a backwards looking determination, based on a long-term trailing average of forward interest rates. There will be an annual adjustment in the allowed return on debt, based on movements in the trailing average rather than making a step movement at every price control. The index will likely be based on the real yields of sterling issuers of a similar credit rating to regulated utilities.
- **Depreciation:** When considering depreciation we will focus on how best to balance the costs paid by existing and future consumers, taking account of the expected economic life of assets and uncertainty in the future use (and usefulness) of assets.
- **Capitalisation policy:** We will add a fixed proportion of costs to the RAV, with the rest being remunerated in the year in which they are expected to be incurred. The percentage to be added to the RAV will be set at the price control review to strike a fair balance between existing and future consumers, in light of the proportion of capex-like costs expected during the price control period. Our approach will be consistent with our objective to equalise incentives between opex and capex in the overall control.
- **Financeability:** Our financeability assessment of proposed price controls will be informed by a number of sources including ratings agency credit metrics and relevant equity metrics considered over the long term. As now, network companies will be expected to manage their business, including capital structure, efficiently to ensure that they are financeable. Where there are concerns with financeability we will consider whether and how best to transition the application of our financeability principles.
- **Cross-check:** We will use the return on regulated equity (RORE) analysis developed in the fifth electricity distribution price control review (DPCR5) as a tool to check the package fits together appropriately. We will use the analysis to ensure that those companies that deliver for consumers earn attractive rates of return, whilst those that demonstrably do not deliver, will earn low returns. Very poor performers could see rates of return on regulated equity below the cost of debt.

Chapter 8
Innovation stimulus package

Chapter 8 summary

We set out our decision on the introduction of an innovation stimulus package.

Conclusions in chapter 8

12 **Innovation stimulus package:** We will introduce a time-limited innovation stimulus for electricity and gas networks. These will be open to projects at any point in the innovation cycle and to both network companies and third parties for innovation related to delivering the networks required for a low carbon energy sector. The innovation stimulus package will include substantial prize funds to reward network companies and third parties that successfully implement new commercial and charging arrangements to help deliver a sustainable energy sector.

Innovation stimulus package

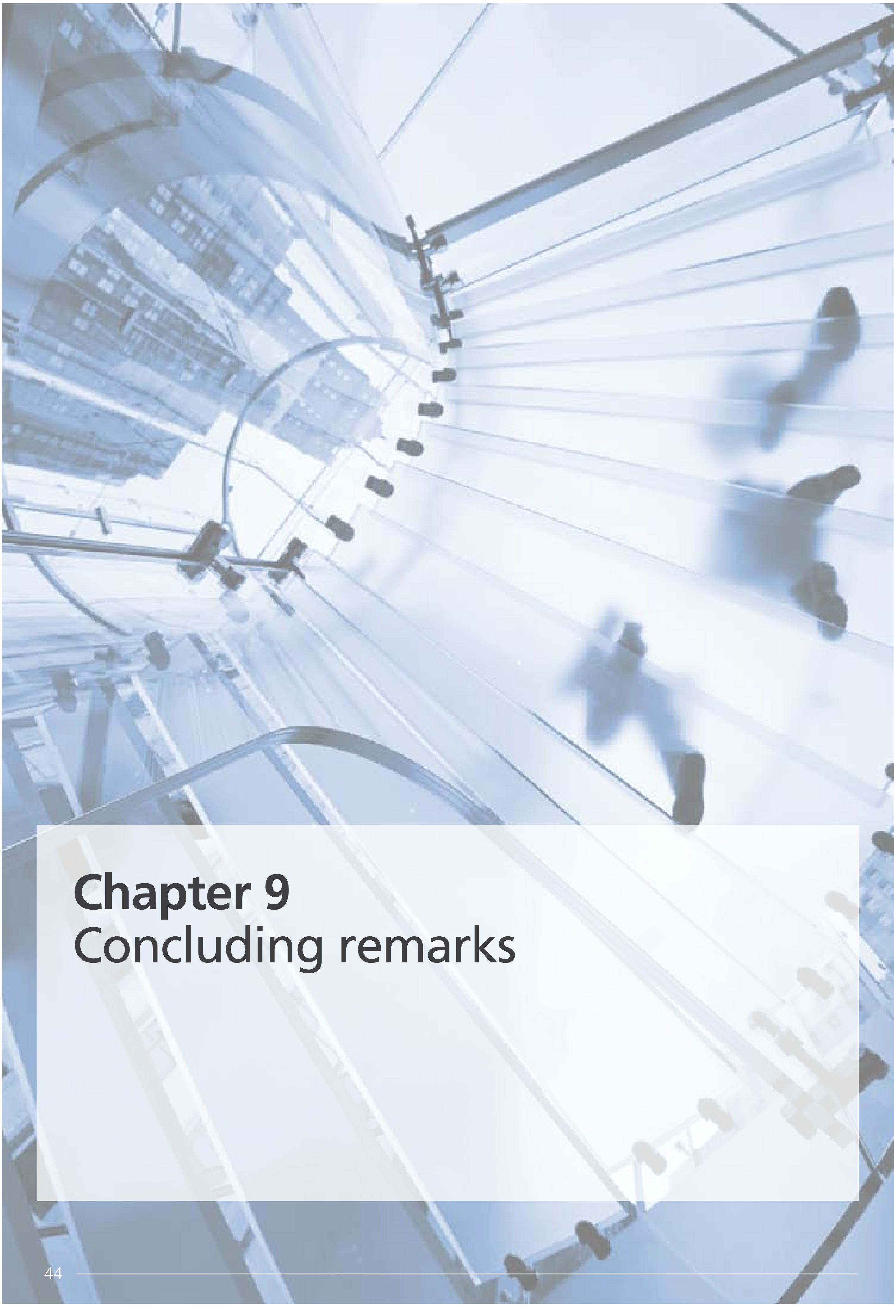
8.1 Given the scale of the challenge that network companies face and the uncertainty about how best to deliver, innovation is needed to ensure network companies deliver a sustainable energy sector and long-term value for money. The need for innovation has been widely recognised throughout RPI-X@20, including in responses to our consultations.

8.2 In our Recommendations consultation we emphasised that under RIIO regulation we would encourage innovation through the price control framework itself as well as through a separate innovation stimulus package. The stimulus would build on and develop the Low Carbon Networks Fund introduced in DPCR5. Our expectation is that in time the RIIO framework would provide the necessary incentives toward innovation and hence the innovation stimulus package could be wound down.

8.3 The stimulus would provide upfront partial funding for innovation projects related to the role of networks in delivering a sustainable energy sector. The funding would be available to network companies and non-network parties as well as for different types of innovation projects. In addition, the stimulus would allow for significant rewards or 'prizes' to be awarded to parties that develop new commercial solutions to meet the objectives of RIIO regulation.

8.4 There was widespread support for the development of an innovation stimulus package that was open to all types of innovation and would allow third parties to lead on innovative projects where appropriate. A number of respondents were also supportive of the proposal to have a separate stimulus in gas and electricity. Where there were outstanding concerns with respect to this proposal, they related to issues that will be resolved through implementation of the stimulus, for example, the provision of funding and the governance arrangements.

8.5 Taking account of responses to the Recommendations consultation, we have decided to take forward the idea of introducing an innovation stimulus package for electricity networks and another for gas networks. We are intending to release an open letter shortly which will invite stakeholder views on our proposed process for taking forward development and implementation of the innovation stimulus package.



Chapter 9
Concluding remarks

Chapter 9 summary

The concluding remarks set out here formally bring RPI-X@20 to a close.

Concluding remarks

9.1 RPI-X@20 was launched in March 2008 and began in earnest in autumn 2008. During the review we have engaged extensively with a wide range of stakeholders and interested parties, through workshops, bilateral meetings and publication of working papers and consultation papers. We have benefited enormously from the resultant input from stakeholders.

9.2 We believe that the RIIO model set out here provides a comprehensive and coherent package that will promote the delivery of a sustainable energy sector at value for money to consumers, both now and in the future. With this framework we will be encouraging energy network companies to:

- seek to better understand the new and changing needs of existing and future consumers
- invest in new capital assets and new operating solutions
- undertake more innovation, both technological and commercial
- focus on what is needed for the long term given the time horizons associated with the sustainable energy sector (e.g. the 2050 targets)
- look for ways of delivering economic and efficient network services at long-term value for money
- consider alternative delivery options given uncertainty about how best to deliver
- develop new commercial relationships with users of the network and end consumers, to enable them to meet the challenges together.

9.3 The publication of this decision document marks the formal end of RPI-X@20. We, network companies and stakeholders are now focused on implementing the RIIO model, firstly in TPCR5 and GDPCR2. In July 2010, we published our open letters on the way forward for the upcoming transmission and gas distribution price control reviews (TPCR5 and GDPCR2). We will be publishing our Initial Strategy consultation for TPCR5 and GDPCR2 in December 2010. We will also be implementing the framework in the next electricity distribution price control review (DPCR6), due to be implemented by 1 April 2015.

Appendices

Index

Appendix 1 - The Authority's powers and duties

1.1 Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority (the Authority), the regulator of the gas and electricity industries in Great Britain. This appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).

1.2 The Authority's powers and duties are largely provided for in statute (such as the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Acts of 2004, 2008 and 2010) as well as arising from directly effective European Community legislation.

1.3 References to the Gas Act and the Electricity Act in this appendix are to Part 1 of those Act.[22] Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This appendix must be read accordingly.[23]

1.4 The Authority's principal objective is to protect the interests of existing and future consumers in relation to gas conveyed through pipes and electricity conveyed by distribution or transmission systems. The interests of such consumers are their interests taken as a whole, including their interests in the reduction of greenhouse gases and in the security of the supply of gas and electricity to them.

1.5 The Authority is generally required to carry out its functions in the manner it considers is best calculated to further the principal objective, wherever appropriate by promoting effective competition between persons engaged in, or commercial activities connected with:

- the shipping, transportation or supply of gas conveyed through pipes;
- the generation, transmission, distribution or supply of electricity;
- the provision or use of electricity interconnectors.

1.6 Before deciding to carry out its functions in a particular manner with a view to promoting competition, the Authority will have to consider the extent to which the interests of consumers would be protected by that manner of carrying out those functions and whether there is any other manner (whether or not it would promote competition) in which the Authority could carry out those functions which would better protect those interests.

[22] Entitled "Gas Supply" and "Electricity Supply" respectively

[23] However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.

1.7 In performing these duties, the Authority must have regard to:

- the need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met
- the need to secure that all reasonable demands for electricity are met
- the need to secure that licence holders are able to finance the activities which are the subject of obligations on them[24]
- the need to contribute to the achievement of sustainable development.

1.8 In performing these duties, the Authority must have regard to the interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.[25]

1.9 Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:

- promote efficiency and economy on the part of those licensed[26] under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems
- protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity
- secure a diverse and viable long-term energy supply.

1.10 And shall, in carrying out those functions, have regard to the effect on the environment.

1.11 In carrying out these functions the Authority must also have regard to:

- the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice
- certain statutory guidance on social and environmental matters issued by the Secretary of State.

[24] Under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Acts in the case of Electricity Act functions.

[25] The Authority may have regard to other descriptions of consumers.

[26] Or persons authorised by exemptions to carry on any activity.

Appendix 2 - Glossary

A full glossary of terms used in RPI-X@20 documents can be found on our website:

http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/rec%20glossary.pdf

Appendix 3 - Feedback questionnaire

1.1 Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:

1. Do you have any comments about the overall process, which was adopted for this consultation?
2. Do you have any comments about the overall tone and content of the report?
3. Was the report easy to read and understand, could it have been better written?
4. To what extent did the report's conclusions provide a balanced view?
5. To what extent did the report make reasoned recommendations for improvement?
6. Please add any further comments?

1.2 Please send your comments to:

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