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RIIO|T1
RIIO|GD1

Consultation on strategy for the next transmission and gas distribution price controls - RIIO-T1 and GD1 Business plans, innovation and efficiency incentives

Document type: Supplementary Annex RIIO-T1 and GD1 Overview papers

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Target audience: Consumers and their representatives, transmission companies, distribution network companies, generators, offshore gas producers/importers, suppliers, shippers, debt and equity investors, environmental organisations, government policy makers, independent gas transporters (IGTs) and other interested parties

Overview:

The next transmission and gas distribution price controls, RIIO-T1 and GD1, will be the first to reflect the new RIIO model. RIIO is designed to drive real benefits for consumers; providing network companies with strong incentives to step up and meet the challenges of delivering a low carbon, sustainable energy sector at a lower cost than would have been the case under our previous approach. RIIO puts sustainability alongside consumers at the heart of what network companies do. It also provides a transparent and predictable framework, with appropriate rewards for delivery.

We are now consulting on the strategy for the two price control reviews. This supplementary annex to the main consultation documents sets out our proposed approach to business plans, proportionate treatment, innovation, efficiency incentives and third parties role in delivery. This document is aimed at those who want an in-depth understanding of our proposals. Stakeholders wanting a more accessible overview should refer to the main consultation documents.

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Associated Documents

Main consultation papers

- Consultation on strategy for the next transmission price control - RIIO-T1 Overview paper (159/10)
  http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/RIIOT1%20overview.pdf

- Consultation on strategy for the next gas distribution price control - RIIO-GD1 Overview paper (160/10)
  http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/RIIOGD1%20overview.pdf

Links to supplementary annexes

- Consultation on strategy for the next transmission price control - RIIO-T1 Outputs and incentives
  http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1%20Outputs%20incentives.pdf
- Consultation on strategy for the next transmission price control - RIIO-T1 Tools for cost assessment
  http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1%20Cost%20assessment.pdf
- Consultation on strategy for the next gas distribution price control - RIIO-GD1 Outputs and incentives
  http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/GD1%20outputs%20and%20incent.pdf
- Consultation on strategy for the next gas distribution price control - RIIO-GD1 Tools for cost assessment
  http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/GD1%20costs%20assess.pdf
- Consultation on strategy for the next transmission and gas distribution price controls - RIIO-T1 and GD1 Financial issues
  http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1%20and%20GD1%20finance.pdf
- Consultation on strategy for the next transmission and gas distribution price controls - RIIO-T1 and GD1 Uncertainty mechanisms
  http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1%20and%20GD1%20uncert.pdf
- Consultation on strategy for the next transmission and gas distribution price controls - RIIO-T1 and GD1 Impact Assessment
  http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1%20and%20GD1%20IA.pdf

Links to other associated documents

- Handbook for implementing the RIIO model - Ofgem, October 2010
  http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf

- RIIO: A new way to regulate energy networks: Final decision http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/Decision%20doc.pdf
- Approach and timetable for TPCR5: decision document (21/10) http://www.ofgem.gov.uk/Networks/Trans/PriceControls/TPCR5/Documents1/TPCR5%20Approach%20and%20Timetable%20-%20Decision%20Document%20-%20FINAL.pdf

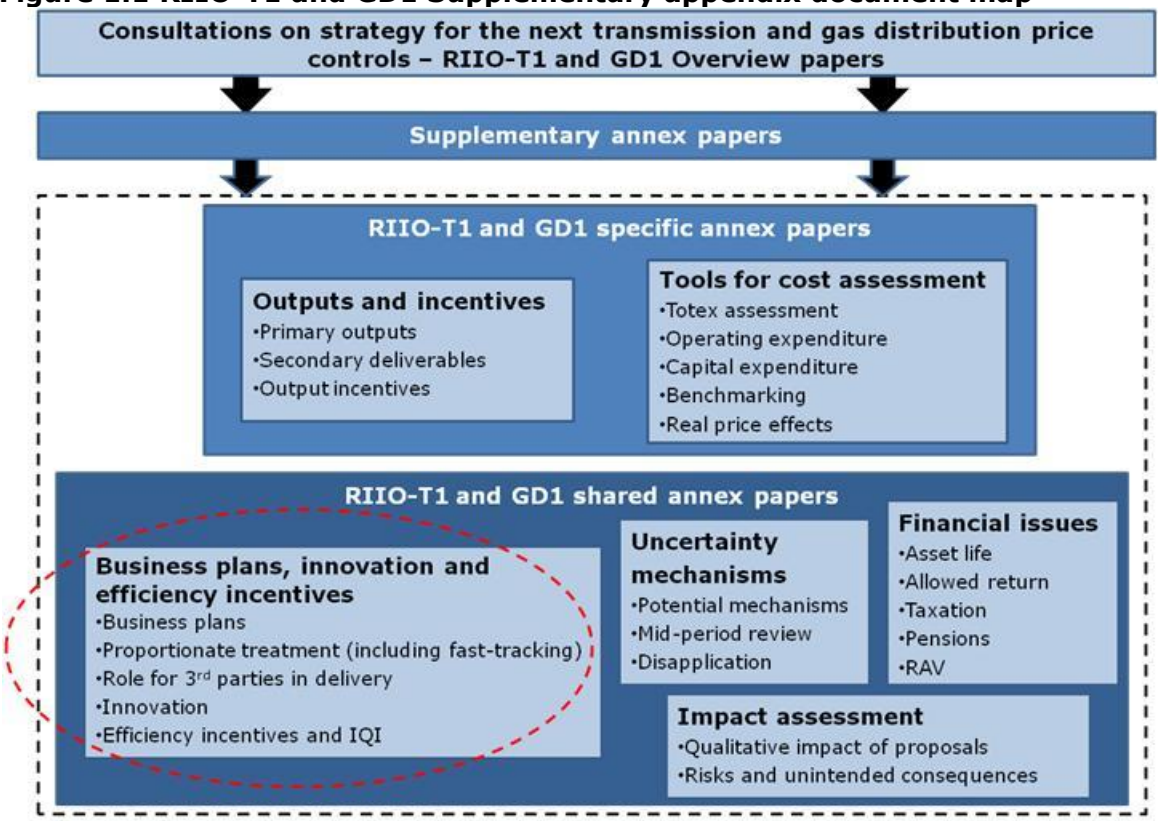
A glossary of terms for all the RIIO-T1 and GD1 documents is on our website: http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/Glossary.pdf

Table of Contents

1. Introduction

1.1. The next transmission and gas distribution price controls, RIIO-T1 and GD1, will be the first to reflect the new RIIO model. We are now consulting on the strategy for the two price control reviews. This supplementary annex, to the main consultation documents, sets out our proposals for business plans, proportionate treatment, innovation and efficiency incentives. It also considers the form and structure of control and a greater role for third parties in delivery. This document is aimed at those who want an in-depth understanding of our proposals. Stakeholders wanting a more accessible overview should refer to the RIIO-T1 and GD1 Overview papers. Figure 1.1 below provides a map of the documents published as part of the consultations.

Figure 1.1 RIIO-T1 and GD1 Supplementary appendix document map*



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

1.2. The RIIO-T1 and GD1 overview papers have set out the important role that the companies' business plans will play in these price control reviews and our intention to apply the RIIO principle of proportionate treatment in assessing these plans. Chapter 3 of this annex provides more detail on what we expect from a well-justified business plan prepared by the transmission owners (TOs) and gas distribution

network companies (GDNs). This builds on and is consistent with our earlier business plan guidance issued with our July open letters consulting on the way forward[1].

1.3. It considers how we propose to follow the process of applying proportionate treatment. This includes the application of fast-tracking, where a well-justified plan is rewarded by early settlement.

1.4. The paper also consults on a detailed assessment criteria that we propose to follow and seeks views from stakeholders on additions and changes that we should consider.

1.5. This paper also considers other aspects of the RIIO-T1 and GD1 price controls that the companies need information on when developing their business plans. These include:

- our views on the form and structure of the price control (Chapter 2)
- the role we expect tendering and third party involvement in delivery to play in the price control review (Chapter 4)
- key elements of the design of the innovation stimulus and other steps we are looking to take to promote innovation (Chapter 5)
- applying the IQI in incentivising efficiency (Chapter 6).

1.6. We append an initial impact assessment for the innovation stimulus and innovation allowance.

[1] Ofgem, Open letter consultation on Transmission Price Control Review 5 (TPCR5) – the way forward and Open letter consultation on Gas Distribution Price Control Review 2 (GDPCR2), both 30 July 2010 http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/Open%20letter%20TPCR5%20way%20forward.pdf and http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/GDPCR2%20%20July%202010%20Open%20Letter%20FINAL.pdf

2. Form and structure of the price control

Chapter Summary
This chapter sets out the form and structure of the price controls for both RIIO-T1 and GD1.

Question 1: Do you have comments on the description of the form and structure of the price control?
Question 2: Is the scope of the price control including the range of services excluded appropriate?
Question 3: What are the appropriate criteria for assessing whether a proposed change to the revenue profiling is appropriate?

Form of control

2.1. Under the RIIO model, we will set the outputs that the network companies need to deliver and the revenues they are able to collect from consumers for delivering these. The revenue allowance will be set for eight years and companies will face strong incentives for efficient delivery.

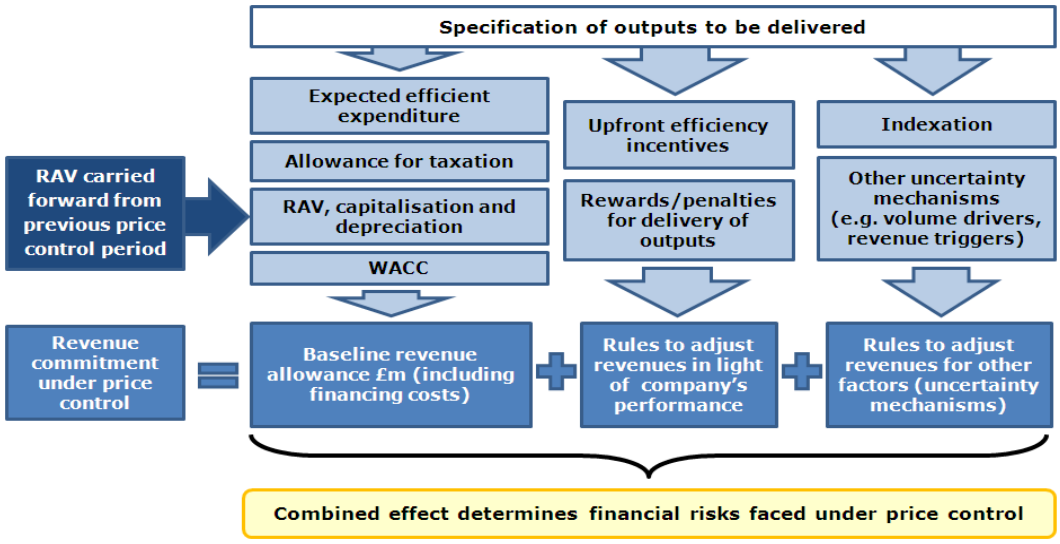
2.2. We will adjust the revenue cap annually for changes in the retail price index (RPI). We are consulting (Chapter 3, 'Supplementary Annex – RIIO-T1 and GD1 Uncertainty mechanisms') on three options for precisely what changes in RPI we should use:

- no change – maintain use of six-month averages
- change to April to March 12-month average
- change to January to December 12-month average.

2.3. Other adjustments to revenue will relate to output incentives ('Supplementary Annex – RIIO-T1 Outputs and incentives'), efficiency incentives (Chapter 6 of this annex) and uncertainty mechanisms ('Supplementary Annex – RIIO-T1 and GD1 Uncertainty mechanisms').

2.4. As in past reviews, the price control will be set using a building block approach, incorporating incentives to encourage network companies to deliver outputs and value for money in the longer term. The figure below illustrates the core elements of the building block approach.

Figure 2.1 Price control building blocks



2.5. The way we set each of the building blocks will be different and are discussed in 'Supporting Annex - Outputs and incentives', 'Supporting Annex - Tools for cost assessment' and 'Supporting Annex - Financial issues and uncertainty mechanisms.'

Scope of controls

RIIO-T1

2.6. The next price controls apply to the one gas and three electricity TOs. The TOs are:

- National Grid Gas plc (NGG), which owns the high pressure gas transportation system across Britain
- National Grid Electricity Transmission plc (NGET), which owns the high voltage electricity network in England and Wales
- SP Transmission Limited (SPTL), which owns the high voltage electricity network in the south of Scotland
- Scottish Hydro Electric Transmission Limited (SHETL), which owns the high voltage electricity network in the north of Scotland.

2.7. The review will culminate in licence conditions for each licensee to take effect on 1 April 2013. The price controls for NGG and NGET are being assessed, and will be set, independently from each other, even though they are both wholly owned subsidiaries of National Grid plc.

2.8. We propose that RIIO-T1 sets allowed revenues covering all transmission use of system charges levied by the transmission networks in Great Britain (GB) except for excluded services, de minimis and other consented activities.

2.9. The TOs own and maintain the network assets. They are responsible for planning the development of the networks and for providing transmission services to the system operators.

2.10. In addition to their TO responsibilities, NGG and NGET are the designated gas and electricity System Operators (SOs). NGG, as the gas SO, is responsible for the day-to-day operation of the national transmission system (NTS), including balancing supply and operator demand, maintaining satisfactory system pressures and ensuring gas quality standards are met. NGET, as the electricity SO, operates the transmission networks, balances electricity supply and demand and coordinates system outages. NGET is the SO for all three electricity transmission networks.

2.11. The regulatory framework for SO activities distinguishes between internal and external SO costs. The controls for NGG and NGET will also determine internal SO allowances for NGG SO and NGET SO. Internal SO allowances cover costs such as staff and IT that are employed to deliver the SO functions. External SO costs are incentivised through a separate process. These incentives, among other things, encourage the SO to minimise system operation costs. There are interactions between the SO and TO arrangements, which are relevant to consider particularly in setting incentives. This issue is discussed in Chapter 4 of the RIIO-T1 Overview document.

Liquefied Natural Gas (LNG) price control

2.12. NGG owns three LNG facilities that provide a combination of commercial and regulated services. These are Avonmouth, Glenmavis and Partington. All of these services are subject to price review. The regulated services they provide are mainly to NGG to help them operate and manage the gas transmission system and to Scotia Gas Networks (SGN) who uses the tanker loading facility at the Glenmavis site to load road tankers, which transport gas to five remote towns in Scotland, known as the Scottish Independent Undertakings (SIUs).

2.13. Regulated LNG prices were last reviewed in 2008. Since 2008, there have been a number of significant changes affecting NGG's LNG business and we have been approached by NGG to reconsider the level of the regulated prices, as it considers that the facilities are no longer commercially viable at the current price levels.

2.14. We have agreed to review the regulated prices for LNG and published an open letter on the review in August 2010[2] and initial proposals in November 2010.[3] In our initial proposals we proposed a two-year duration for the control, to take it to 2013. As a result, the next control will coincide with the start of RIIO-T1 and GD1.

2.15. Consequently, we have proposed that the next control should be developed concurrent with RIIO-T1 and GD1 for implementation in 2013. One option is for the

[2] www.ofgem.gov.uk/Networks/Trans/GasTransPolicy/LNGPriceControl/Documents1/FINAL%20National%20Grid%20Liquefied%20Natural%20Gas%20facilities%20price%20control.pdf
[3] http://www.ofgem.gov.uk/Networks/Trans/GasTransPolicy/LNGPriceControl/Documents1/LNGPC%202010%20Initial%20Proposals.pdf

LNG assets to be brought under the remit of the main transmission price control. We are due to publish final proposals on the LNG price controls in February 2011 and will reflect the outcome of that decision in taking forward RIIO-T1 and GD1.

RIIO-GD1

2.16. We propose that RIIO-GD1 sets allowed revenues covering all gas distribution charges levied by the gas distribution networks in GB except for excluded services, de minimis and other consented activities. These networks are: East of England, London, North West, West Midlands, Northern, Scotland, Southern and Wales & West. They are owned by four companies: National Grid Gas, Northern Gas Networks, Scotia Gas Networks and Wales & West Utilities.

2.17. The current price control also applies to customer connections to the extent that costs are recovered through gas distribution charges. It also extends to Scottish Independent Undertakings (SIUs). The review will culminate in a licence condition (or set of conditions) for each licensee to take effect on 1 April 2013.

2.18. Excluded services are services where the revenues earned by GDNs are not subject to a price control. However, in setting the price control we will forecast expected revenues and costs from providing these services. If GDNs are able to sell additional excluded services, then the revenues they receive should cover the additional costs incurred and any surplus revenues will not be counted as allowed regulated revenues, subject to the companies only earning and reasonable return.

2.19. The following services are identified as examples of excluded services:

- operations and maintenance for third parties, including emergency services
- connections and construction for third parties to the extent that the costs are being recovered through use of system charges
- provision of operational consultancy to third parties
- in the case of some GDNs, the provision of services to other members of their corporate group
- miscellaneous (including the provision of training and information services, and sales of electricity, to third parties).

Sub-deducts

2.20. Following the technical surveys of the sub-deduct networks that were undertaken by the GDNs, we have reviewed the survey data submitted to us. The key issue is a legal question over who owns and is responsible for maintaining the sub-deducts. We are in discussion with National Grid on this issue and the outcome will inform the revenue allowances that he GDNs may need in the RIIO-GD1 period. We intend to consult separately on this specific issue through an industry open letter in early 2011. We are aiming to outline our approach on sub-deduct networks in the March RIIO-GD1 publication.

Metering of last resort

2.21. The GDNs are subject to a meter provider of last resort (MPOLR) licence obligation, which requires them to provide a meter within their service area where requested by a supplier.[4] The licence obligation was put in place to provide a backstop arrangement in the case that suppliers could not procure meters in the competitive market. We set price caps for MPOLR metering services provided by GDNs, but independent of the process of setting transportation revenue caps, ie the focus of RIIO-GD1.

2.22. The GDNs also provide gas Post-Emergency Metering Services (PEMS), where the GDNs engineer is required to undertake any meter work (including the installation of a new meter) following an emergency call out.

2.23. We do not propose to address issues relating to either MPOLR or PEMS within the RIIO-GD1 as we consider these are metering activities and therefore they do not fall within the current price control. We also note that any issues in relation to the MPOLR or PEMS will be addressed within our current review of metering arrangements (ROMA) in the gas and electricity markets, which we launched earlier this year. We have published the scope of the review – including the issues we will address in relation to MPOLR and PEMS – on our website.[5]

2.24. We would welcome comments on whether there should be any changes to the boundaries between price controlled and non-price controlled activities in RIIO-T1 and/or GD1.

Revenue profiling and re-profiling

2.25. As part of the price control review, we will reach a view on the expenditure required each year by each network company to deliver the agreed outputs. Our default approach is to set base revenue for each year of the price control consistent with the expected path of expenditure requirements.

2.26. The arrangement in place to allow revenue to adjust during the period (for uncertainty mechanism and output and efficiency incentives) could result in network companies wanting to adjust the profile of price during the period. Normally, we would expect companies to manage the variation and adhere to the price profile assumed at the price control review. However, if a company needs to make a large but transitory change in its prices, compared to what was expected at the price control review, it would need to provide clear and robust justification, comparing forecast revenue for the remainder of the period with and without re-profiling.

[4] See Standard Special Condition A10 (Provision and Return of Meters) to provide and install meters.
[5] Ofgem (6 July 2010) Review of Current Metering Arrangements http://www.ofgem.gov.uk/MARKETS/RETMKTS/METRNG/COMP/GAS/Documents1/Gas%20Post-Emergency%20Metering%20Services%20(PEMS)%20request%20for%20information.pdf

2.27. If we consented to a change in the profile of revenue collection — either at or during the price control period — we would need to use an appropriate discount rate. This should be set to ensure that network companies are neither penalised nor rewarded for any re-profiling of revenues. We expect an appropriate discount rate to be consistent with the interest rates from low risk investments. It may not be the same as the weighted average cost of capital assumed for the price control.

2.28. We welcome views on the appropriate criteria for assessing whether a proposed change to the revenue profiling is appropriate.

3. Business plans and proportionate treatment (including fast-tracking)

Chapter Summary

This chapter sets out the role of companies' business plans in the price control review process. It discusses what we expect of the TOs and GDNs. It also considers the approach that we propose to use when assessing business plans. This includes the way we would apply proportionate treatment (including fast-tracking). Through proportionate treatment, we intend to reward those who produce a well-justified business plan and focus the heaviest scrutiny on those who produce less well-justified plans.

Question 1: Are you content with the degree of guidance we are providing on a well-justified business plan? Is there additional guidance you would value?
Question 2: Do you have comments on the use of ten years as the basis for forecast data? What level of detail should additional five years data to place this forecast into context be? Where might a longer period be appropriate? Are there cases where ten years would be problematic? If so what alternative approach might we follow?
Question 3: Do you support the basis of our initial sweep assessment?
Question 4: What should be included in our assessment of past performance at these first reviews?
Question 5: Do you have comments on the proportionate treatment process?
Question 6: Do you have comments on our assessment criteria?
Question 7: Do you support the way we propose to apply fast-tracking?
Question 8: For RIIO-GD1, do you have views on the additional reward reflecting their relative superiority over comparators. Which of the options for implementing the reward do you prefer and why?

Introduction

3.1. The RIIO model places much more emphasis on companies' business plans in the price control process. We are looking to reward network companies that deliver well-justified plans early in the process, either through the opportunity to reach a fast tracked settlement or to have a light touch approach to business plan assessment.

3.2. We will be asking the companies to bring forward business plans with a wider scope than before. They will need to set out what the company intends to deliver for consumers of network services over time. Each company will need to set out what revenue it needs to earn from existing and future consumers to ensure financeable delivery of these outputs. The onus is on network companies to justify their view of required outputs and expenditure after considering alternative means of delivery, benchmarking their costs, considering the long-term context and how the views of stakeholders have informed the plan.

3.3. The remainder of this chapter is split into five sections. First we discuss the role of the companies' business plans, explaining at a high level what we expect the TOs and GDNs to include in their business plan submissions. The second section sets out

more detail on how we will apply proportionate treatment, including more detail on what this means at four different stages in the price control review process. We discuss fast-tracking in more detail, before setting out the proposed business plan assessment criteria we will use. Finally, we discuss how we expect the companies to accommodate innovative ideas in their business plan submissions.

The role of business plans

What we expect from the TOs and GDNs

3.4. We expect the network companies to follow the business plan guidance that we consulted on in our July 2010 open letters consulting on the way forward in the two price control reviews.[6] We have sought in this document to give further guidance and to emphasise some of the key elements of the business plans.

3.5. Key points of our business plan guidance to emphasise are:

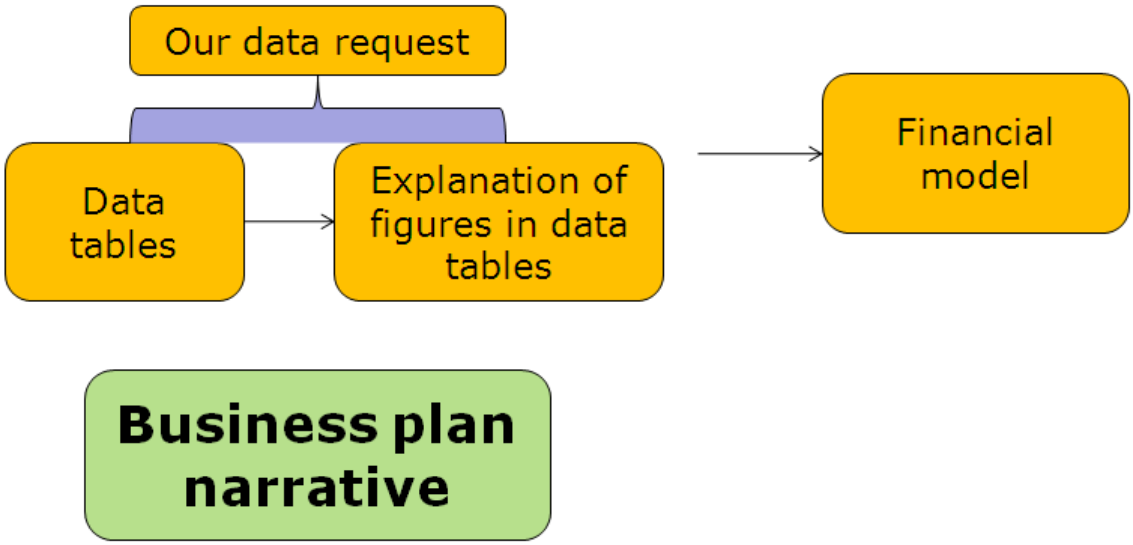
- companies need to justify their proposed strategy for delivering their output baselines against a thorough understanding of the long-term trends (and risks and uncertainties) that they face. They also need to show that they understand their role, and are looking to be proactive in, contributing to the UK's carbon reduction targets
- we expect the companies to demonstrate that, in drawing up their business plans, they have considered the views of stakeholders, and the opportunities to use innovative technologies, techniques or commercial arrangements to deliver their outputs at long-term value for money
- the plan should present a holistic view of the package the company believes to be appropriate, ie for the first time the company's view on financeability metrics will be included alongside views on expenditure and outputs with the former justified against their plan and backed up by other evidence
- to engage effectively with stakeholders, network companies will have to be able to provide the means for understanding the impact of the revenue level proposed on charges given the prevailing charging structure at the time.

3.6. As described in more detail in 'Supplementary Annexes - Outputs and incentives', in most cases we are looking for the company to propose the target level of output performance in its business plan. It will need to justify this, particularly showing that it has discussed with stakeholders the cost and service delivery implications of different target levels for the various output measures. In proposing the output baselines, we expect businesses to consider also the needs of future consumers. The business plan submission will involve three distinct parts:

[6] Ofgem, Open letter consultation on Transmission Price Control Review 5 (TPCR5) – the way forward and Open letter consultation on Gas Distribution Price Control Review 2 (GDPCR2), both 30 July 2010 (http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/Open%20letter%20TPCR5%20way%20forward.pdf and http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/GDPCR2%20%20July%202010%20Open%20Letter%20FINAL.pdf) .

- business plan narrative
- populated financial model
- populated data template.

Figure 3.1: The different elements of the business plan



3.7. We expect the three submissions to be consistent and as far as possible transparent for scrutiny from others as well as us. While the business plan narrative might not cover everything mentioned in the data tables, we expect the data tables to reflect the data pertinent to the narrative.

Length of forecasts for data tables

3.8. As well as the companies considering a longer-term context in the business plans, we think it is important that the forecast data that companies submit in data tables as part of the business plan is not restricted to the eight-year control period.

3.9. While recognising a trade off between extending data to a longer time period and the robustness of such forecast data, we think that companies should submit data for the remainder of the current price controls and the full eight years of RIIO-T1 or GD1.

3.10. We recognise that there may be a case for submitting longer forecast data. We expect that companies would submit a further five years data to put the forecasts into context. We do not expect this additional five years data to be the same level of detail.

3.11. We welcome views on this, including the appropriate level of detail for the additional five years data.

Proportionate treatment

Introduction

3.12. The RIIO model envisages a proportionate approach to assessing the price control package. Under this approach, the intensity and timescale of the assessment will reflect the quality of a company's business plan and the company's record for efficient output delivery. This approach is consistent with better regulation principles as it allows us to focus greatest regulatory scrutiny where it is likely to produce the greatest value.

3.13. Where a company produces a high quality business plan we propose to subject their business plans to a lower level of scrutiny, and focus attention on the areas that deserve further analysis. In some cases where a company produces a particularly high quality business plan we will consider whether it is appropriate to conclude that company's price control process early, ie the company would be fast-tracked. Companies whose business plans are not high quality will receive a high degree of regulatory scrutiny and are likely to be required to make substantial improvements to their plans between the initial business plan submission in 2011 and the final submission in 2012. The scope for lighter-touch scrutiny and, to a greater degree, fast-tracking provides network companies with incentives to step up to the challenge of submitting realistic and well-justified business plans. This is because these approaches will allow companies to:

- get on with business as usual without focusing as much resource on the price control process
- plan with greater certainty earlier in the process (companies that are subject to light touch regulation should gain relatively early assurance that certain elements of their plan are likely to be approved, whereas fast tracked companies will receive their final proposals for consideration over a year ahead of other companies)
- be a significant driver of its own review outcome
- gain positive reputational advantage associated with the kudos of achieving a fast-tracked settlement or having lower-proportionate scrutiny.

3.14. The scope for proportionate treatment may also provide incentives for companies to reveal information that would not be available otherwise (or only become available late in the price control review process) which might assist with the assessment of other companies.

3.15. Below we discuss the process we propose for the business plan assessment.

Four stages to the business plan assessment process

3.16. We plan to run a four stage process to the assessment of companies business plans as follows:

- stage 1: initial sweep (July 2011 – September 2011)
- stage 2: further analysis of business plans (October 2011 to mid-December 2011)
- stage 3: final decision on fast-tracking (December 2011 to mid-February 2012)
- stage 4: process for finalising controls (February 2012 – 31 March 2013)

Stage 1: initial sweep July 2011 – September 2011

3.17. In July 2011, the TOs and GDNs will submit complete business plans. We will undertake our first assessment of the plans and other relevant information shortly after we receive them. At the end of this initial assessment stage, we will decide whether to recommend that the Authority begins a process with a view to fast-tracking one or more of the companies), offering them a settlement up to a year ahead of the beginning of the RIIO-T1 or GD1 period.

3.18. Through the initial sweep, we will make an initial assessment as to the quality of all business plans. We will give the companies initial feedback on the areas of their plans that we consider require further work ahead of the final business plan submission in March 2012. However, only after submission and initial review of the 2012 business plans will we finally decide on the level of regulatory scrutiny that we should apply across all elements of the business plans of non-fast tracked companies.

3.19. The initial sweep will consider the absolute quality of the plans from the TOs and GDNs. The aim is that a company with a 'well-justified' plan (one we consider to fall in Category A) could be fast-tracked through the price control process.

The initial sweep will be informed by three different evidence sources:

- an assessment of the business plan (including accompanying data and financial model). We discuss our proposed assessment criteria later in this chapter
- use of any available comparative evidence, eg benchmarking (see 'Supplementary Annex – Tools for cost assessment')
- assessment of past performance based on pre-established principles.

3.20. We welcome views on what should be considered relevant to an assessment of past performance in these first RIIO reviews before a full set of outputs have been defined.

3.21. During the initial sweep process, we may seek clarity from the companies on a number of aspects of their plans. To ensure we can complete the initial sweep in a timely manner we will need the companies to respond to requests within a short timescale. We will clearly define the specific timescale at the time but this will depend on the nature of the enquiry.

3.22. At the end of stage 1, we may consider that no parties have produced business plans of sufficient quality in all respects for them to be suitable for the fast-track

process. If this is the case then fast-tracking ceases as an option. In this event, there will still be potential for some companies to benefit throughout the remainder of the price control process from relatively light touch scrutiny of those parts of their business plans that are well-justified.

3.23. At the end of stage 1, companies, other than those fast-tracked will start to prepare revised plans in light of feedback we have given them on the quality of their initial submissions.

3.24. Ahead of this stage, in April 2011, we will commence licence drafting so that new licence conditions can be agreed in time for inclusion in the fast track settlement. We plan to set up a separate drafting group for each price control review, using our strategy decision document as the basis of initial licence drafting work. A key consequence of starting our licence drafting early is that it will coincide with the Gas Distribution Licence Review.[7] In line with our approach in previous price controls, we expect to publish a short consultation on licence drafting in September 2011.

Stage 2: Further analysis of business plans (October 2011 to mid-December 2011)

3.25. The second stage will entail an intense period of analysis and discussions with any company we consider might be suitable for fast tracking. The objective will be to reach a view on our 'initial proposals' on the settlement for the fast tracked companies and to set these out for consultation by mid-December 2011. This will be the first time that RIIO consistent business plans are prepared. Some plans may not meet some of the criteria for a well-justified plan. However, they may be close. We will provide the opportunity for parties to address outstanding issues and still have the chance to be fast-tracked.

3.26. It is possible during this stage that companies we initially identified as being potential fast tracked candidates in stage 1 drop out. This may be because there is a significant difference of views between ourselves and the company that cannot be resolved within the necessary timescales or, for example, because the company is not able to provide us with additional information or answers to queries in the tight time frame that we have for fast tracking. Companies that drop out at this stage are likely to be subject to lighter touch scrutiny throughout the remainder of the price control process, given our initial assessment that most areas of their business plans are well justified.

[7] The consultation on the proposals for the restructuring of the Gas Distribution licence ended on 17 September. Given the possible impact that this work might have on the implementation of the Third package (ie with the licence numbers changing) we have proposed that we postpone the licence restructure until March 2011. The purpose of these reviews is to amend the non-price control - standard and standard special licence - conditions and to put them into plain English. They are not intended to change policy in any way. The work should complement the licence work for the PCRs. There may also be a similar review of NTS conditions.

3.27. During this second stage, we will undertake further analysis of the non-fast-tracked plans so that we can provide further feedback to the companies in advance of them submitting their final business plan in 2012. Our December document will set out why the Authority is not minded to take particular companies through the fast tracking process. We will publish this document for consultation even if our recommendation is not to fast track any company.

3.28. During this stage, and ahead of our December consultation, all companies will have an opportunity to make representations to the Authority on the view we have taken of the quality of their business plans. In parallel with our December publication we will set out a complete set of draft licence conditions, reflecting comments from the September consultation.

Stage 3: Final decision on fast-tracking (December 2011 to mid-February 2012)

3.29. Stage 3 sees us publish our final decision on which network companies, if any, will be subject to fast-tracking at the end of February 2012. The decision document will be informed by feedback from the December consultation and any further analysis or discussions we have had with the fast track candidates. The document will set out final proposals for those companies that the Authority has decided to fast track and be accompanied by a statutory consultation on the licence conditions to apply.

Stage 4 – Process for finalising controls (February 2012 – 31 March 2013)

3.30. Stage 4 follows more closely the process we normally follow in the last year of a price control review.

3.31. Non-fast-tracked companies will need to submit revised business plans in March 2012. Between April and the end of June 2012, we will undertake final analysis of those companies' business plans. The quality of the original plans and the way the companies have responded to challenge with their final plans will determine the degree of regulatory scrutiny that they face.

3.32. We will publish initial proposals for those companies in July 2012. Having reviewed responses, we will begin developing final proposals.

3.33. In the final stage, we will finalise the licence conditions for non-fast-tracked companies and the regulatory instruction and guidance (RIGs) documents for both fast-tracked and non-fast-tracked companies to complete the reporting requirements associated with the new price control arrangements. We will develop these from August 2012 to mid-December 2012. We will then consult on this during February 2013.

3.34. The RIIO-TI and GD1 controls for both fast-tracked and non-fast-tracked parties will commence from 1 April 2013.

Fast-tracking

Introduction

3.35. Where a company produces a well-justified (Category A) plan we propose not just to focus less regulatory resource on them but to undertake an investigation to decide whether it is appropriate to reach an early, fast-tracked, settlement.

3.36. This early settlement does not change the price control implementation date of 1 April 2013. However, it means that all review of the company's plan would be complete by early 2012 and at this time we would expect to agree to the licence conditions for that company that we will implement from April 2013.

3.37. We believe that the fast-track option has many advantages for the company as it allows them to:

- get on with 'business as usual' without focusing resources on the remainder of the price control process
- plan with certainty over that extra year
- be the key driver of their review outcome by designing the proposal and not spending a year seeing their plans changed by regulatory scrutiny and information from other companies who did not produce good quality plans early in the process.

Key features

3.38. The key features of fast-tracking will be

- a company's price control will be finalised 12 months ahead of non-fast-tracked companies
- a company's licence conditions as a whole will be finalised at the time of the fast-tracking decision
- we will consult on whether any company should be fast-tracked
- it is possible that no company will be fast-tracked if our assessment is that none have met the required criteria.

3.39. There will be various stop/go stages in the process as follows:

- October 2011 – If it is clear that no party has met the criteria for fast-tracking then the option of fast-tracking may end at this stage and all parties may follow the full length price control review process. Non-fast tracked companies may still receive relatively light regulatory scrutiny to some parts of their business plans. This depends on the quality of the submissions and the extent to which the initial plan and the plan submitted in March 2012 meet the criteria we have set out above.

- December 2011 – We publish the Authority's minded-to position on whether a company should be fast-tracked, and consult on the details of the price control settlement for that company. It is possible at this stage that the Authority decides it is not possible to fast track companies identified in October. In this case, it is likely that these companies will receive lighter regulatory scrutiny to several parts of their business plans and may have relatively little work to do in updating their business plan submissions for March 2012.
- February 2012 – If, after consultation the Authority decides to fast-track a company, we publish a final price control proposal for that company to accept or reject in the normal way.

Incentive compatibility

3.40. Despite the advantages, some network companies are concerned that fast-tracking could disadvantage them against other companies that we are reviewing. They may be concerned that another party, whose settlement is concluded later, gets a better deal. This could occur either because of new information arising or because we change our minds on some element of the settlement which means they would have been better off not being fast-tracked.

3.41. We think it is unlikely that a company would do worse under a fast-track settlement. If we have been able to conclude a fast track settlement, we are likely to be in agreement with most elements of the company's original business plan, and we are unlikely to have had the time to agree substantial or contentious variations, including in relation to the financial parameters in the settlement. There are a number of important mechanisms, including the cost of debt index that will automatically adjust for changes that happen between concluding the fast tracking settlement and the beginning of the price control settlement. It is also the case that a company that we are taking through the fast track process can signal that it is uncomfortable with the adjustments we are looking to make to its business plan and pull out of the process at any point. When presented with final proposals in February 2012, the company will be able to reject the settlement on offer. For these reasons, the agreed settlement for the fast tracked company is likely to be close to the company's view of the revenue it needs to run its network and contain sufficient consideration for the risk that the company believes it is facing (including in the period up to the start of the price control period).

3.42. However, to make fast-tracking work, we propose (and welcome views on) allowing adjustments to aspects of the fast tracked settlement between February 2012 and December 2012 if there is evidence that the fast tracked company is being disadvantaged against the others, eg receiving a lower cost of capital. If we took this approach we would look to negotiate the elements that are subject to adjustment, as part of the fast tracked settlement. These would be subject to consultation along with all other aspects of the settlement in December 2011.

3.43. In RIIO-GD1, we also propose to provide an additional reward to fast tracked companies to reflect the rewards that would have been available to best performing companies based on our previous approach to setting allowances based on the upper quartile on upper third benchmark. Fast-tracked companies are likely to be the best

performing companies in terms of their historical and forecast costs. This reward is needed to preserve the incentives for these companies to keep improving efficiency that existed under our previous approach and also to encourage them to put in a stretching forecast. It works by allowing them to keep some of the benefits their lower costs, that are used to benchmark other companies, in the next price control period.

3.44. This reward could take different forms. It could be set at a percentage of the consumer benefit from our benchmarking other companies using their data. It could also be a defined amount of money. The advantage of the first option is that it strengthens incentives to put in a challenging forecast as the reward is based on the consumer benefit this delivers. This disadvantage is that we will only know the customer value of their forecasts after the fast track settlement date (ie once we have done the benchmarking analysis on other companies and understand the cost savings that this benchmarking has brought about for customers).

3.45. We would welcome views on whether this additional reward is appropriate and what the form of this reward should be.

Assessment criteria

3.46. The next section of this chapter provides detail on the criteria we propose to use for assessing the business plans.

3.47. The assessment of a company's plan will consider its quality in absolute (not relative) terms. This will be based on the quality of the plan against the criteria set out below. We recognise that in providing these criteria we might not have foreseen everything that might contribute to a well-justified plan. In such cases we will consider the quality of justification made and set out clearly how we have dealt with the proposal overall.

3.48. We welcome views from stakeholders on the criteria below, including anything we can make clearer and any other aspects we should consider. The proposed criteria can be divided into those that are concerned with:

- approach the company has taken to the business planning process – criteria 1-3
- the strategy underlying the business plan – criteria 4-10
- refection of the strategy in the plan – criteria 11-15.

Approach the company has taken to the business planning process

Criteria 1 – Key content

3.49. Firstly, we will consider whether the main elements of a well-justified plan are present. These elements are:

- clear relationship between outputs/secondary deliverables and expenditure
- explanation of the form of stakeholder engagement and how it has been used
- strategy the company will employ to play a full role in delivering a sustainable energy sector
- approach that the company is taking to understand and address key uncertainties
- justification for proposed approach including evidence of efficiency and longer-term value for money
- evidence of use of market testing and of innovation
- justification of financeability parameters, with link to underlying business plan.

3.50. If any one of the above is missing from the plan then it is unlikely to be well justified. It will also give us an indication of how much scrutiny we will have to apply ie how unsure we are that it represents long-term efficient delivery.

Criteria 2 – Acceptance of our policies

3.51. Our March 2011 strategy decision document will set out policy guidance in a number of areas. We expect that a well-justified plan will reflect these. Included here will be a number of key financial policies such as the cost of debt index, asset lives, tax, pensions and capitalisation, as well as a methodology for arriving at the cost of equity. We expect companies to comply with these financial policies and methodologies. We would expect robust analysis to support any view on the value of parameters, which fall outside the ranges and values we have set out in March 2011.

3.52. We also expect companies to comply with the RIIO policies on outputs. The primary outputs we set out should all be included in the plan. However, it is for companies to provide justification for additional outputs and for the level of delivery they are targeting in most output areas.

3.53. In other areas companies will have the opportunity to propose alternatives. For example, as explained in 'Supplementary Annex - Uncertainty mechanisms', companies will have an opportunity, as part of their business plans, to set out which uncertainty mechanisms they are seeking to help them to manage risk, and what benefits these would bring for consumers, for example enabling a lower cost of capital). Ultimately it will be for us to decide whether to accept the companies' proposals.

Criteria 3 – Structure and proportionality

3.54. We do not intend to provide a template for the business plan narrative as we consider it is a matter for the companies as to how their information is structured. However, we will assess whether the information is in a clear, logical and concise manner. It should be accessible to a range of readers. Failure to structure the document in such a manner will make it difficult to assess and therefore to determine whether a company has met a number of the other criteria.

3.55. The plan should present the information consistent with taking a proportionate approach. A plan should be thorough. However, just because a plan is longer than another does not mean it is any better. Therefore, we expect companies to provide more information on the more material elements of expenditure relative to the less material elements.

3.56. The plans should be on an end-to-end basis covering initial stakeholder engagement to required revenue and means of understanding indicative charges to customers.

Strategy

Criteria 4 – Efficiency of costs

3.57. The costs set out in the business plan should be efficient over the longer-term. Companies will need to provide evidence that they need to do the work, that they have considered alternative options and the costs of delivery are appropriate. This will include taking into account the longer term-development of their networks. We expect companies to use a range of tools in demonstrating the efficiency of their costs including internal and external benchmarking evidence and market testing. We would expect the network companies to take a proportionate approach to providing evidence with greater information for more material areas of costs.

3.58. We will consider efficiency through our toolkit approach to cost assessment, which is discussed in detail in 'Supplementary Annex - Tools for cost assessment'. This will include both higher level and more disaggregated analysis. It will also include comparisons of both forecasts and historical data across companies. If the costs a company identifies are higher relative to other companies and past, performance then it will be for them to demonstrate efficiency in the long-term.

Criteria 5 – Long-term context

3.59. The plan should be set out in a long-term context. A well-justified plan will be one that details information on their longer-term strategy for developing their networks and delivering long-term value for money. We will expect companies to link this to their strategy for contributing to meeting the government's carbon and renewable targets.

3.60. This will require the companies to show that they have not only considered the expenditure they need for the duration of the price control but also the implications this will have on required investment and associated efficiency beyond the price control period. They will need to justify expenditure in the eight-year period in the context of the longer-term strategy.

Criteria 6 – Reflect uncertainty

3.61. Uncertainty will always be present when plans are being prepared. The plan will need to demonstrate how companies have taken account of uncertainty in developing their long-term business strategy. As part of this, they would need to set out how they intend to manage uncertainty over the short to medium-term, including for example keeping options open and trialling new ideas through innovation projects.

Criteria 7 – Deliverability

3.62. The plan must demonstrate how they will achieve successful output delivery. This means identifying planning and resourcing requirements, especially where the level of activity looks to increase significantly from historic levels. The companies will be required to demonstrate that their resourcing requirements are efficient.

Criteria 8 – Effective engagement and understanding of stakeholder views

3.63. The companies should develop business plans reflecting their engagement with their stakeholders. However, it will not be sufficient for companies to set out the stakeholder engagement activities they have carried out. We expect the companies to demonstrate what they have learned from their engagement, how they have reflected it in business plans, or why they have decided not to respond to stakeholder views if this is the case, ie mapping the impact. We also expect companies to demonstrate they have effectively engaged with a wide range of stakeholders when formulating their plans.

Criteria 9 – Risk

3.64. A well-justified plan should demonstrate an assessment of risk during the price control period and say what the company intends to do in the light of that risk.

Criteria 10 – Reflecting best practice

3.65. A key element in judging business plans will be the comparison of each company's plan with best practice, eg international examples. In assessing whether a plan is well justified, we will consider the quality of that plan in comparison with other plans and thus whether there would be scope to make improvements in any areas.

Reflection of strategy in plan

Criteria 11 – Accurate and full completion of business plan templates in a timely manner

3.66. Companies must complete all templates (including the financial model) required by us in a comprehensive manner explaining any assumptions that they have made. The companies need to submit a complete business plan including all associated templates to us by the submission deadlines which will be set out in March's decision document.

3.67. Failure to provide any information required without a reasoned justification would mean that it cannot be well justified and may make a company ineligible for fast-tracking. Network companies will have the opportunity to comment on the templates before they are required to complete them.

Criteria 12 – Quality of information on primary outputs

3.68. The plan should clearly identify how a company intends to deliver the primary outputs. We outline these in the document on Outputs and Incentives and will finalise them in March's decision document. Except where we prescribe specific outputs levels, we will expect companies in their business plans to propose a target level delivery for each output and to justify this with reference to stakeholder feedback, network performance and a consideration of efficiency. Where we outline output levels in the strategy decision document, we will expect companies to provide justification where they consider an alternative level of outputs to be appropriate.

3.69. The Business Plan should also clearly identify the impact of these outputs on the required expenditure for the price control period.

Criteria 13 – Quality of information on secondary outputs

3.70. As with primary outputs, we expect the companies to set out how we will employ secondary deliverables where they are proposing the need for expenditure to support the delivery of outputs in a future period. This should include current levels of those deliverables and incremental changes to those outputs associated with proposed levels of expenditure. If a company considers a different (or additional) secondary deliverable is appropriate from those set out in our strategy decision document, we expect this to be fully justified.

Criteria 14 – Evidence

3.71. The plans should provide sufficient evidence to support the company's proposals. The evidence should demonstrate that the estimated costs are efficient. The evidence would include key elements of the financial arrangements including an assessment of risk, notional gearing, cost of equity and transitional arrangements.

3.72. As set out in our RIIO recommendations and discussed in more detail in the next chapter, a key component of this evidence is market testing evidence.

3.73. The key test for us will be the level of scrutiny we consider we are required to undertake of a company's plan. It is recognised that being the first time companies develop business plans under the RIIO framework, we may have to raise a number of points for a company to address.

Criteria 15 – Linking forecasts to historical performance

3.74. We expect companies to demonstrate in their plan how their forecasts relate to their performance under the current controls. For example, if a company recognises that it is likely to have inefficiently high costs relative to its peers for a particular activity it will need to demonstrate how it addressed this inefficiency. If there is an underspend in the current period then they will be expected to justify this and put their forecasts in the context of that previous performance.

Other aspects of plan

3.75. As part of their business plans the network companies will be required to set out their views on asset health, criticality and replacement priorities at:

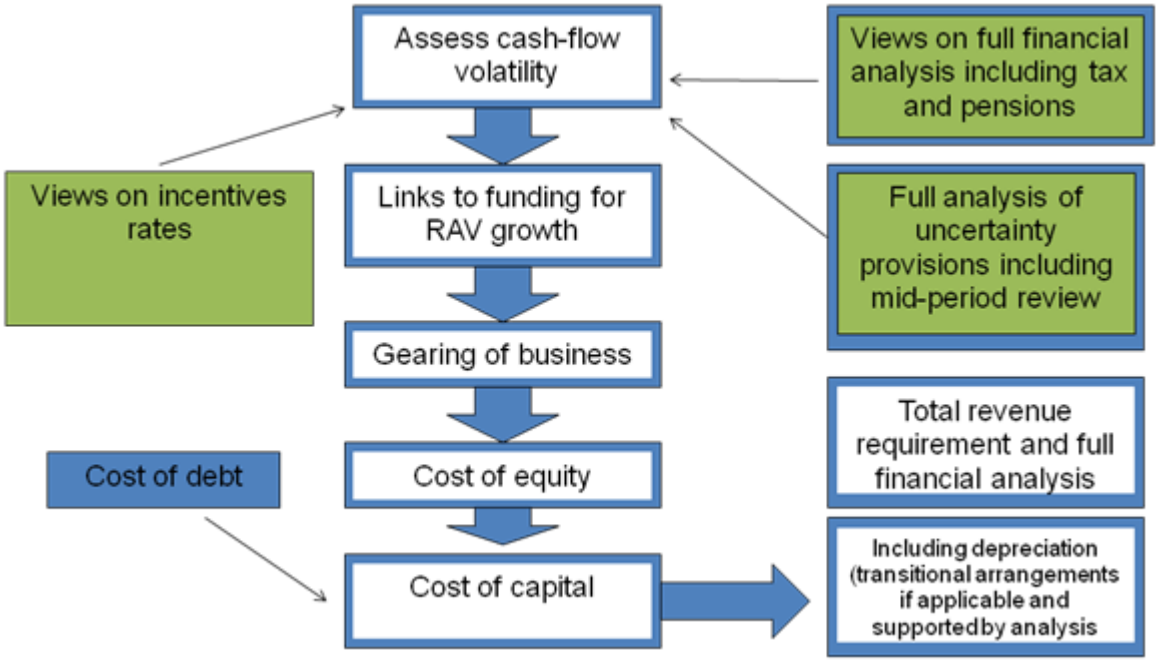
- the start of the price control period, effectively reflecting their view on the current condition, risk and replacement priorities of the network
- the end of the price control period with no intervention, effectively reflecting their view on asset degradation over the period
- at the end of the price control period with investment as proposed in their well-justified business plan.

3.76. We expect all companies to strive to produce a well-justified plan. However, we recognise that no plan may reach a well-justified status and hence be suitable for fast-tracking. Even in such a case, a plan might be of sufficient quality to merit lighter-touch regulation than other plans. In applying lighter-touch regulation, we would focus our scrutiny on the criteria that the business plans had not met based on our initial assessment.

3.77. For companies whose plans do not meet much of the criteria, we will expect them to progress to meet the criteria at the end of the process. Their 2012 plans should reflect the improved quality based on challenges made to the first plan.

3.78. Companies need to develop the business plan as a whole package. This includes assessing the riskiness of cash flows and implications on the financing requirements. Figure 3.2 shows some of the things that the company should think about to support its financing justification.

Figure 3.2 Indication of some of the things that the network companies should think about to support its financing justification



Direct innovation funding

3.79. As part of their business planning process we expect companies to consider the use of innovative technologies, operating techniques, charging and commercial arrangements.

3.80. We would like companies to include innovative projects in their business plan where they think they have the information required to justify the project – even if the project is, within the price control period, more costly than business as usual approaches and the project case rests on outputs being delivered beyond the upcoming price control period. Such projects could relate to core business activities (eg a new way of dealing with asset risk) but may also relate to delivering GB carbon targets, for example:

- Electricity distribution/transmission - deploying smart technologies, integrating renewable generation, deploying energy storage, or commercial arrangements, which facilitate and incentivise any of the above.
- Gas distribution/transmission - connecting biomethane plants, using gas assets for transporting carbon dioxide, facilitating demand-side measures, or implementing commercial arrangements, which facilitate and incentivise any of the above.

3.81. Justification of funding for innovative projects in the business plan (whether related to business as usual or low carbon projects) should include an explanation of the outputs associated with the project. Justification for funding over and above

business as usual will need to include sufficient evidence of expected costs, benefits and risks. This justification should take into account any remaining uncertainty over outcomes. This requirement aims to ensure that the business plan is consistent and transparent, and allows for an efficient assessment and benchmarking of forecast and historical costs.

3.82. Where appropriate, we may exclude innovative projects from benchmarking assessments where they increase costs within the price control period but do not correspondingly increase outputs.

3.83. In contrast, there may be some interesting opportunities to innovate but where there is insufficient information for companies to make a business case for roll out as part of their 2011 or 2012 business plans. These initiatives may require further demonstration or trialling before information is available to make a case for rollout. If the proposed solution meets the criteria for the innovation stimulus, which we discuss further in Chapter 5, then the company will be able to submit bids for funding a trial through that route which may or may not be successful. We are currently consulting on the type of projects that should be eligible for funding in this way.

3.84. In addition, we are consulting (see Chapter 5) on whether to allow small projects at pre-roll out stage to be funded through a direct Innovation Allowance to each network company. Projects in the Innovation Allowance would be self-certified and would not therefore be required in the well-justified business plan. Nonetheless, we would expect the overall strategy for Innovation Allowance expenditure to be set out in the business plan.

4. Greater role for third parties in delivery

Chapter Summary
This chapter describes the role competition will play in the RIIO T1 and GD1 price controls. Specifically we discuss the role we expect market testing to play in the submission and assessment of business plans. We also set out the circumstances in which we would consider introducing competition for the development and ownership of network assets. As set out in the RIIO model, we feel significant consumer benefits could be achieved through having the option to introduce such third party competition. We seek the views of stakeholders on these proposals.

Question 1: Do you agree with our view that the case to develop the framework to enable third parties to compete to develop and own elements of the ***electricity transmission*** network is significant, and that we should work to develop this option as a priority? Do you foresee any areas of significant benefit or concern?

Question 2: Do you consider there is a case for introducing competition for development and ownership of ***gas transmission*** assets? What form this should take? Do you foresee any significant barriers to the development of a competitive regime? When would be the appropriate time to develop this option?

Question 3: In light of the role competition already plays in ***gas distribution*** do you feel there is a case for making further provisions to enable new entrants to develop and own parts of the network? If so, what form do you think these provisions should take?

Background

4.1. Providing scope for competition in delivery, ownership and operation of network assets is an important element of the RIIO framework. We expect that having the option to introduce competition will impose disciplines on existing network companies that encourage them to strive for timely delivery, be more innovative, and seek out lower long-term cost delivery solutions.

4.2. The RIIO model outlined three key ways in which we could use competition to realise benefits for the consumer. The first two, detailed below, define the information we expect from licensees as part of their well-justified business plans, and are included in the business plan guidance for the first RIIO price control[8]:

- As part of a well-justified business plan, we expect companies to demonstrate that they adopt efficient procurement practices, providing evidence of market testing as appropriate. This is described in the previous chapter.

[8] Annex C, Ofgem, Open letter consultation on Transmission Price Control Review 5 (TPCR5) – the way forward and Open letter consultation on Gas Distribution Price Control Review 2 (GDPCR2), both 30 July 2010 **(**http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/Open%20letter%20TPCR5%20way%20forward.pdf and http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/GDPCR2%20%20July%202010%20Open%20Letter%20FINAL.pdf)

- Where we feel a network company has failed to provide robust evidence to support its business plans, we may ask them to provide more evidence, potentially including evidence of market testing.

4.3. Under the third approach outlined in the RIIO model, we would have the option to grant a third party responsibility for ownership and potentially delivery of selected projects, which we would allow them to fund through a regulated revenue stream. Enabling this option will require considerable change within the network sector involving significant industry and regulatory commitment. The benefits associated with undertaking this work vary from sector to sector.

4.4. Within gas and electricity transmission we see clear consumer benefits to this approach including reduced costs, increased scope for innovation and accelerated delivery times; within gas distribution, where competition already plays a key role, the benefits case is not immediately clear. We discuss and seek stakeholders views on whether we should make the technical regulatory and legal change required to enable this option in each sector later in this chapter. Where we have the option to introduce such competition it would only be used in specified circumstances, the criteria for which are set out below, and where we expect significant net long term benefit for consumers. Where implemented appropriately we see clear consumer benefits to this approach including reduced costs, increased scope for innovation and accelerated delivery times.

Market testing and business plans

4.5. In the chapter on business plans and proportionate treatment, we outline a number of characteristics of a well-justified business plan. Criteria 14 – Evidence - outlines the requirement on companies to provide evidence to justify their funding requests. As part of this, we would expect the companies to demonstrate sufficient market testing to provide us with confidence that the funding request represents value for existing and future consumers. Such evidence would demonstrate that the licensees had taken efficient decisions on which aspects of delivery (if any) should be outsourced. We have not taken a view on the optimal level of market testing or outsourcing and we do not want to suggest that some business models (eg with all activities outsourced) are, in principle, better than others.

4.6. Where we have concerns about a particular aspect of the business plan we will have the option to request that the licensee provide further evidence of market testing. These concerns could relate to the project design or delivery risk in addition to project costs.

Third party delivery and asset ownership

The RIIO model: When would a competitive process be undertaken?

- Under the RIIO model, we have stated that we will consider whether it is appropriate to subject a project to competition either when considering funding

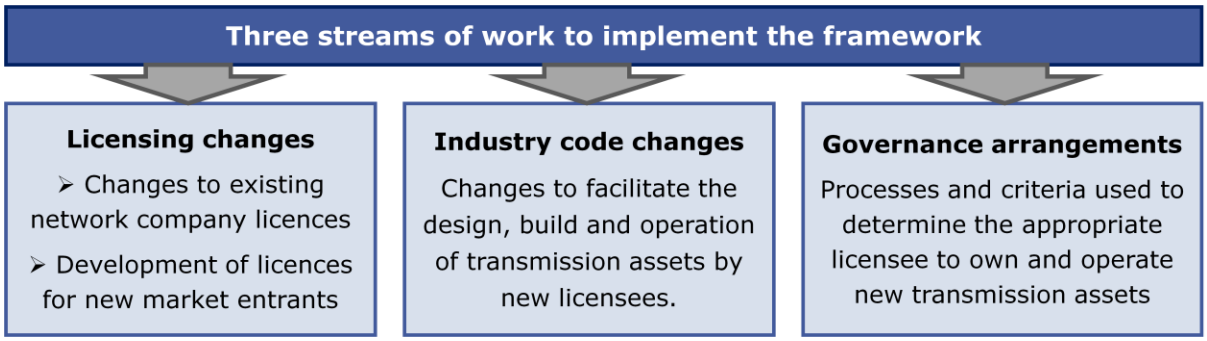
requests received through the price control process or when a project need has been identified within a price control the project is significant in scale and/or cost, and the resultant consumer benefits justify the regulatory costs of running a competitive process
- the project involves assets required for expansion of the network that are not meshed with existing assets, or can be defined in such a way that they are not meshed with existing assets
- giving third parties a greater role in delivery will not pose significant risks to timely delivery, including constraints on the delivery of emission reduction or renewable targets
- giving third parties a greater role in delivery will not pose significant risks to the safety, security, integrity and quality of energy services
- we can demonstrate that the expected potential long-term net benefits are significant
- we are confident that giving third parties ownership of relevant assets will not compromise the legitimate expectations of existing licensees when making investments without knowledge of the possibility of assets potentially being transferred to a third party at a later date
- giving third parties a greater role in delivery will be compliant with domestic and relevant EU legislation, including the third package.

Third party delivery and asset ownership across the sectors

4.7. We will build upon the RIIO recommendations during the RIIO price controls to understand the specific benefits competition can bring each of the three sectors; where appropriate we will work with stakeholders to develop governance arrangements to maximise these benefits. Below is a brief summary of our latest thinking in each sector, along with questions for stakeholders, which will help further develop our approach.

4.8. **Electricity transmission:** In light of the likely scale of investment required over the coming years to develop an electricity transmission system capable of facilitating the low carbon economy of the future, we feel significant benefits could be realised in this sector through the timely development of a regime to give us the option to grant a third party responsibility for ownership and potentially delivery of selected projects. We plan to make to the technical regulatory and legal changes which are required for us to have the option to hold a competition. We propose to make these technical changes in parallel with the RIIO-T1 price control. Next year will publish our first consultation paper on the details of these arrangements. This paper will solicit the views of a wide range of stakeholders including the current licensees, potential licensees, investors, consumer groups and the green lobby. We consider there are three key strands to this work, as illustrated in Figure 4.1 below.

Figure 4.1 Develop the framework to enable competition



4.9. Our first consultation paper will cover all three work-streams but we will focus on the license and code changes as a priority. These changes will need to be taken forward by the existing industry processes; this is likely to prove to be the lengthiest activity in the process.

4.10. We would welcome views on whether you agree with our view that the case to develop the framework to enable third parties to compete to develop and own elements of the electricity transmission network is significant, and that we should work to develop this option as a priority. Do you foresee any areas of significant benefit or concern?

4.11. **Gas transmission:** We consider there may be cost and delivery time benefits associated with introducing Ofgem-led competition into gas transmission; particularly in relation to projects to deliver new gas transmission capacity. However, the enabling changes to the regulatory framework to facilitate such competition would require considerable regulatory and industry commitment. As part of the RIIO-T1 price control, we will develop a further understanding of both the benefits and the commitment required, this will inform our decision on the role competition will play in the development of gas transmission assets in the future.

4.12. We welcome you views on whether there is a case for introducing competition for development and ownership of gas transmission assets? What form this should take? Do you foresee any significant barriers to the development of a competitive regime? When would be the appropriate time to develop this option?

Competition in Gas Distribution

4.13. As part of the RIIO-GD1 process will consider whether Ofgem-led competition, as defined by the RIIO framework, would be appropriate within gas distribution. Competition already plays a part in the market through the role of Independent Gas Transporters (IGTs) who compete with Gas Distribution Networks (GDNs) for the business of building, owning and operating extensions to gas distribution networks. At present IGTs service more than one million connections.

4.14. Additionally, we are of the view that it is not practical for anyone other than the host GDN to undertake and own the development where new projects are heavily integrated with the network of existing licensees (eg on reinforcement projects).

4.15. In light of the role competition already plays in gas distribution do you feel there is a case for making further provisions to enable new entrants to develop and own parts of the network? If so, what form do you think these provisions should take?

5. Innovation

Chapter Summary

This chapter sets out our emerging thinking on innovation within the RIIO framework. We describe how a combination of the RIIO business plans, the incentives inherent in the RIIO framework and the innovation stimulus will promote innovation by network companies and third parties. This chapter is to be read in conjunction with the business plan guidance set out in Chapter 3.

Question 1: Should the scope of the innovation stimulus be confined to projects which help deliver a low carbon future, or should the scope be wider to include long-term network sustainability? Should there be a different scope to the innovation stimulus that applies to electricity and to gas?
Question 2: Do you agree that the level of funding available under the innovation stimulus for each of electricity transmission and gas distribution and transmission should be within the ranges identified? Are there further arguments for different funding levels which we have not considered?
Question 3: How should network companies be required to meet the costs of the innovation stimulus? Should this be through fast cash, slow cash or the standard expenditure capitalisation ratio?
Question 4: Do you agree that we should provide a limited innovation allowance directly to each company? If so, do you have views on the form and scope and of this allowance, and on which mechanism would best incentivise efficient investment in innovation?
Question 5: Do you agree that there should be a revenue adjustment mechanism to encourage innovation roll-out within the price control period? If so, do you agree with our views on the criteria for such an adjustment and how frequently should we allow companies to apply for this adjustment?

5.1. The RIIO framework has been developed in recognition that Britain's gas and electricity industries face significant challenges to facilitate the move to a low-carbon economy and meet emissions targets whilst maintaining safe, secure and reliable energy supplies. Gas and electricity networks will need to be smarter, integrating more renewable and intermittent sources and encouraging customers to manage their demand. In short, we expect that the companies will need to innovate at a rate unprecedented in the history of the industry.

5.2. Many elements of RIIO are aimed at promoting technological, operational, commercial and charging innovation. This includes the focus on outputs (which gives companies both flexibility to change how they deliver and a strong incentive to introduce new techniques to improve efficiency) and the longer-term price control. However, network companies may be put off innovating where the commercial benefits of innovation are unproven or may need to be underpinned by new commercial arrangements, which have not been proven.

5.3. In October, we published an open letter consultation on the innovation stimulus[9] indicating our intention to develop an innovation stimulus for gas distribution and transmission and an innovation stimulus for electricity transmission in parallel with the price control reviews. We noted in that letter that we need to make sure that key decisions about the innovation stimulus were made in time to support the price control process. In particular, companies need key information on the design of the innovation stimulus before they consider the innovation strategy they will set out in their business plans. This chapter sets out our initial thinking on these key issues: the scale and scope of the innovation stimulus; how innovation should be included in the business plans; and how the roll out of innovation can be facilitated during the price control period.

5.4. The second section of this chapter sets out our intention to provide an additional innovation allowance directly to the network companies to provide funding to smaller projects. In the third section we outline the potential need for a revenue adjustment mechanism within the price control period to incentivise large innovation projects or the roll-out of successful projects which are not foreseen at the price control business planning stage.

5.5. All other aspects of the innovation stimulus will be developed and consulted upon in a separate process, which was set out in our open letter consultation on this.

Innovation stimulus

5.6. This section sets out our initial views on the form of the innovation stimulus, as set out in the open letter. These build on the high-level elements of the innovation stimulus package set out in the RIIO handbook[10] as follows:

- funding will be allocated through submissions to an annual competition
- funding will be raised and allocated separately for gas and electricity
- networks and appropriately licensed non-network companies are eligible
- the innovation stimulus will be funded by transfers of consumer monies across licensees
- all parties receiving funding under the scheme will be required to share the information and knowledge gained from the projects
- the innovation stimulus will be time limited – it will endure until such time as other incentives under RIIO are found to be encouraging sufficient innovation.

5.7. We recognise that funding provided through the innovation stimulus should take into account interactions with other potential sources of project funding. These could include the Green Investment Bank and the Green Deal as well as European funds. Applicants for innovation stimulus funding will have to demonstrate consideration of these other funding sources as part of their justification.

[9] http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=285&refer=Networks/Policy
[10] 'Handbook for Implementing the RIIO Model', October 2010.
http://www.ofgem.gov.uk/networks/rpix20/consultdocs/Documents1/RIIO%20handbook.pdf

Scope

5.8. The innovation stimulus seeks to encourage projects which can be clearly justified by wider benefits to current or future consumers. For example, wider benefits could include environmental benefits or improvements to the long term network sustainability.

5.9. The purpose of the innovation stimulus is to provide a low risk environment in which companies can conduct research and development and carry out trials, to understand the business case for innovative ideas. The innovation stimulus is not aimed at funding the implementation or roll-out of innovative techniques. Once the benefits of these techniques are proven there should be sufficient incentives and other mechanisms within the price control to encourage the companies to adopt them.

5.10. We are consulting on the types of projects which will be eligible to apply for innovation stimulus funding. We set out two options below.

- **Option 1:** A narrower scope which are aimed at helping the network companies understand better what role they could be playing in facilitating the low carbon energy sector. This would suggest a scope similar to that adopted for the Low Carbon Networks (LCN) Fund for electricity distribution.
- **Option 2:** A wider scope which, as well as projects in option 1 above, provides funding for projects which help the network companies develop strategies aimed at delivering long term value for money to customers. For example, this could include innovation on asset management techniques to improve the long term efficiency of how the network is run, but which does not directly or indirectly have low-carbon benefits.

5.11. Option 1 may be the best way to target funding at meeting future challenges. However, this risks failing to capture the full range of immediate issues facing network companies. In the gas transmission and distribution sectors in particular, it is not immediately clear that there is a significant number of projects needed to help the companies understand their role in providing carbon benefits. At the same time, as we have discussed in the 'Supplementary annex - Outputs and incentives', a fundamental change in asset management techniques is required if customers are to receive long term value for money. While the regulatory framework is set up to allow the companies to capture the benefits of this innovation, there is a risk that, without specific funding, companies may see this as requiring too much up front effort to be worthwhile and that they focus on easier ways of improving shareholder return.

5.12. On the other hand, a fund that is scoped too broadly could risk funding solutions which will provide significant benefits to the companies and which they could justify even in the absence of external funding. There is also a risk that companies do not submit low carbon projects into the annual competition if they have the opportunity to apply for funding for projects that may have a more direct link to their own business benefits.

5.13. We are interested to hear whether stakeholders consider that the scope of the innovation stimulus should be confined to projects which help deliver a low carbon future (option 1), or should the scope be wider to include long-term network sustainability (option 2). We are also interested to hear whether stakeholders consider there is justification for a different scope to the innovation stimulus that applies to electricity and to gas given the potentially different future challenges that these two sectors face.

5.14. We recognise that there is significant overhead to applying for and running the annual competition. The innovation stimulus is aimed at funding larger projects. For small projects this overhead could be disproportionate to resulting benefits. We are therefore minded to introduce a new mechanism in the form of an innovation allowance, to provide funding for small projects. Further detail is set out towards the end of this chapter.

Amount of funding

5.15. In the innovation open letter consultation,[11] we consulted on what types of innovation might be funded by the innovation stimulus and the potential costs of this innovation. In the annual competition (second tier funding) of the LCN Fund we have made £64m available in each year of the price control and, in the first year this has allowed us sufficient funding for a number of high-quality projects. A number of respondents to our open letter have suggested that the LCN Fund level of funding is appropriate for the electricity distribution sector. We have therefore used the size of the LCN Fund second tier funding as a starting point for the level of funding available under the innovation stimulus[12].

5.16. From this starting point we consider a range of factors including the scale of future challenges in each network sector and the scope for innovation. Funding will be raised and allocated separately for gas and electricity. We have considered the appropriate amounts required to stimulate innovation in electricity transmission, gas transmission and gas distribution. Based on this assessment, we propose amounts of between £25m-£35m per year for the electricity innovation stimulus (a total amount of £280m available for electricity transmission over the RIIO-T1 period) and £45m-£50m per year for the gas innovation stimulus (a total amount of up to £400m available to both gas distribution and gas transmission over the RIIO-GD1 and RIIO-T1 periods).

5.17. The introduction of the LCN Fund recognised that electricity distribution networks will need to become smarter in order to be able to connect intermittent generation at different levels of the network, and potentially significant changes in load profiles caused by the mass take up of electric vehicles and electric heat pumps without incurring significant cost. In contrast to electricity distribution, it can be argued that the electricity transmission system is already smart in that it uses a lot of telecoms and remote and real time control technologies. However, transmission

[11] http://www.ofgem.gov.uk/Networks/Policy/Documents1/Innovation%20Stimuli%20%2012102010%20Open%20Letterpdf.pdf

[12] LCN Fund First Tier funding is less relevant to the innovation stimulus, because it targets smaller projects, which are not targeted by the innovation stimulus.

has specific and pressing issues around the connection of renewable generation – as has been recognised in the review of transmission access, and the current TransmiT project reviewing transmission charging arrangements and their impact on renewables. The distribution level changes will also impact transmission load management – although the magnitude of the impact is unclear. Improved distribution load management could reduce transmission load management, but export from distribution-level networks could place significant additional requirements on transmission operators. In addition, transmission innovation projects, even if fewer in number, may need to be larger and more expensive than in distribution to achieve demonstration scale.

5.18. In summary we think that there is a requirement for innovation in electricity transmission, narrowly focused on the low carbon agenda. However, our view at this stage is that this requirement may be less than in electricity distribution. We therefore propose innovation stimulus funding of between £25m-£35m per year (ie up to £280m over the eight-year price control period) should be available for electricity transmission, around half that available through the LCN Fund for electricity distribution. We welcome views on this.

5.19. The scale and nature of the low carbon challenge in gas is less apparent. The Renewable Heat Incentive (RHI)[13] may increase demand for bio-methane connections. If it takes off quickly GDNs may have to innovate to accommodate significant local gas imports and begin to consider how they will cope with two way gas flows on their networks. However, there is currently limited bio-methane connected to the grid and it is not clear yet what affects the RHI will have on investment in bio-methane plants. We are keen to get information from respondents about the likely take up of bio-methane when the RHI has been introduced, and the potential network impact.

5.20. We note also that smart meters may offer potential for increased gas demand side management and potentially an increased role for gas networks to capture the associated network benefits. However, again we are unsure of the real impact that smart metering may have and whether this raises the same extent of issues as the electricity distributors need to address. Balancing the gas network does not require the same degree of short-term load management as in electricity because of the ability to store gas and there is expected to be much less of a revolution in how gas is used than is expected through the advent of electric vehicles, heat pumps and so on in electricity. Again, we seek views on our preliminary assessment of the impact of demand side developments on the gas networks. Liquefied Natural Gas (LNG) entry terminals can vary their flow considerably, imposing significant capacity constraints and raising similar issues for gas networks as intermittent generation does for electricity networks. Our initial view is that the impact is likely to be smaller-scale than intermittent generation causes in the electricity sector. As noted above, balancing the gas network does not require the same degree of load management as in electricity and, unlike electricity, it is not anticipated that the decarbonisation of our energy use will lead to a substantial increase in capacity constraints on the network. Indeed, it is possible that there may be a switch to using electricity space heating leading to excess capacity on the gas network.

[13] Due to be introduced in June 2011.

5.21. The future of the gas network remains uncertain even within the price control period, during which future take-up of Carbon Capture and Storage (CCS), bio-methane and transport fuelled by gas is uncertain[14]. These unknowns potentially limit the need and scope for innovation to address low carbon issues. More pressing issues in gas include how the sector will interact with renewable heat and what measures the industry should be taking to address the uncertainty around the future use of the gas network assets. These considerations may suggest that there scope of any innovation stimulus in gas should be extended to address the broad issue of delivering long term value for money for customers rather than narrowly focused on low carbon innovation.

5.22. On the basis of our assessment so far, we are minded to set the level of funding for the gas innovation stimulus at £45m-£50m per year (ie up to £400m over the eight year price control period), available to both gas distribution and gas transmission. We seek your views on whether these funding levels are appropriate.

Funding profile

5.23. We are considering the profile of innovation stimulus funding available over the price control period. Multiple stakeholders have argued there should be flexibility over the level of funding made available each year given uncertainty around the appropriate level of innovation in the future. Other stakeholders argued for a front-loaded funding profile. Some stakeholders felt that 2020 targets are so challenging that innovation should go ahead as quickly as possible and that earlier learning would deliver greater future benefits[15].

5.24. While we acknowledge the urgent need for innovation to address the low carbon challenges in the electricity sector in particular, front-loading the funding profile could have a number of disadvantages. First, it is possible that information becomes available several years into the price control which requires a new wave of innovation, and we want to make sure that funds are available if that happens. Second, customers should fund only the best projects and increasing the level of funding available in earlier years could risk funding projects with fewer wider benefits.

5.25. As set out in the RIIO final decision, as part of the price control settlement we will set a maximum amount that network companies could be required to raise each year for the innovation stimulus. We think that agreeing a predetermined maximum funding for innovation over the price control period will help us to assess the cost of innovation in the context of the overall costs we are asking customers to bear through the price control settlement and the impact on final bills. Within this approach we seek views on the options set out below

[14]Redpoint, 'Gas Future Scenarios Project – Final Report', November 2010 http://www.ofgem.gov.uk/Networks/PriceControls/WebForum/Documents1/ena_gas_future_scenarios_report.pdf

[15]Both in feedback given through our Innovation Stimulus Stakeholder Event and in submitted responses to our open letter.

- **Option 1:** Maintain a constant maximum annual level of funding available through the innovation stimulus.
- **Option 2:** Front-load the maximum amount of funding which could be awarded each year through the innovation stimulus.

5.26. Whichever option we follow, we need to set a maximum annual amount which is sufficient to fund the projects we expect will be needed to advance the learning at all staged in the price control period. However, we consider that it would be difficult to profile this amount in advance to achieve this objective, and therefore we favour option 1. We note that, even with a constant annual funding level, there is scope within the mechanism to award funds below the annual ceiling in some years if there are not sufficient projects of merit to require allocation of the full amount of annual funding available. In this way, we will achieve a profile of expenditure on innovation driven by the quality of projects coming forward, rather than one agreed ex ante as part of the price control settlement.

Funding mechanism

5.27. The innovation stimulus aims to incentivise projects which provide learning to the benefit of all consumers. The costs of providing innovation stimulus funding will therefore be shared across all network customers and provided by transfers from network companies to licensed parties. Costs will be met through network companies' allowed revenue. This could be done through one of the mechanisms set out below:

- **Fast money** – revenue is recovered in the year of expenditure (costs are born by current customers)
- **Slow money** – costs are added to the RAV and costs are recovered over time along with the cost of financing this expenditure (costs are born by future customers)
- **A fixed allocation between fast money and slow money** (the standard expenditure capitalisation ratio), as applied in the relevant price control (costs are shared between current and future customers).

5.28. We are minded to require that funding is raised through fast money. Projects selected for innovation stimulus funding would be funded by contributions from every network company. The cost of the transferred amounts would be recovered through an equivalent increase in their allowed revenues for that year. This is a comparatively simple mechanism, but would mean that expenditures under the innovation stimulus are treated differently to other expenditures. We seek your views on this proposal.

5.29. The standard capitalisation ratio can be argued to be a fairer allocation of costs between current and future customers, reflecting that the innovation will provide benefits to customers now and in the future. However if the donor companies recover the cost of transferred amounts through some portion of slow money, then the mechanism for them to recover the costs through allowed revenues becomes more complicated. The LCN Fund is funded through fast money for this reason.

Partial funding

5.30. As set out previously in our open letter, partial funding will be provided through the innovations stimulus with the remainder of the funding coming from the proposing network company or third party. Given the favourable response to the LCN Fund (which sets a funding limit of 90 percent of project costs), we are seeking views on whether we can reduce the proportion of funding available for each project without having a significant impact on the quality of projects submitted to the annual competition. We are therefore minded to set funding at no more than 80 percent of project costs, with the implementing company providing the remainder.

Direct innovation funding

5.31. As outlined above, the companies' business plans should identify and justify innovation solutions, which may cost more or carry a higher risk than 'business as usual', but nonetheless offer benefits in the long term. We will then consider whether it is appropriate to fund these projects through the companies' revenue allowances. More detailed guidance on criteria for including specific projects in the business plan can be found below and in our business plan guidance.

Innovation allowance

5.32. We are also minded to introduce a limited amount of innovation funding directly to each network company. This reflects stakeholders' views that the innovation funding incentive (IFI), a fixed research and development allowance per company introduced at the last price control, is a valuable mechanism and a version of it should be retained. An innovation allowance would let network companies pass through a proportion of innovation spending to customers, where it meets specified criteria set by us. We intend the innovation allowance to be aimed at small projects, where overheads could deter application for innovation stimulus funding. Innovation allowance spending would be self-certified.

Scope

5.33. The innovation allowance would be targeted at all types of smaller project at all stages of the innovation cycle prior to rollout. We are minded not to set a specific threshold for the size of projects allowed in the innovation allowance. Network companies would decide how to allocate their innovation allowance between projects at different stages of the innovation cycle. We would cap the innovation allowance to incentivise companies to utilise the allowance efficiently given the opportunities open to them. To gain funding under the innovation allowance, network companies will have to include an innovation strategy in their business plan. This strategy should include consideration of stakeholders' views and should include outputs related to the innovation strategy.

Mechanism

5.34. We believe it is important to incentivise efficient expenditure on innovation, which could potentially be achieved by linking funding to outputs. This would also be consistent with the objectives of RIIO.

5.35. We seek views on whether an innovation allowance should be introduced and if so, which of the following options would be most appropriate.

- **Option 1:** A fixed percentage of regulated revenue allocated to the innovation allowance, with self-certification against a set of qualification criteria, similar to the existing IFI. In this case, we are minded to set innovation allowance at one percent of regulated revenue, approximating the level of funding currently available for smaller projects in electricity distribution. To be eligible for the allowance, the company will be required to set out an innovation strategy, identifying the benefits to consumers of the innovation it poses to undertake, and specifying outputs against which the strategy can be assessed.

- **Option 2:** An outputs-based approach, where companies bid as part of their business plan for a level of expenditure based on a set of proposed outputs. These outputs would need to be clearly specified within an innovation strategy which identified benefits to consumers. The approved level of funding would reflect the quality of the innovation strategy. Network companies failing to submit a sufficiently well justified strategy would receive no funding. We are minded to set a higher ceiling than in Option 1, to further incentivise companies to develop good innovation strategies. For example, under this option the innovation allowance expenditure could be set at a maximum of two percent of regulated revenue. Nonetheless, maximum funding would only be awarded against commensurate outputs.

5.36. The level and range of allowed expenditure will depend on the mechanism. Option 2 would make funding under the innovation allowance contingent upon outputs. Doing so would increase the onus on companies to ensure expenditure is effective and reflects stakeholder views. However, this could present challenges to us and stakeholders, who would be required to judge whether network companies' proposed outputs represented a reasonable return on their proposed expenditure. The inherent nature of innovation makes this trade-off difficult to judge ex ante. Nonetheless, carefully specified outputs may be able to accommodate these considerations.

5.37. We are seeking views on which of these options would best meet the objectives above and incentivise efficient investment in innovation.

Revenue adjustment mechanism for rolling out innovative solutions

5.38. As noted above, we expect companies to come forward with proposals to roll out innovative techniques (investment, operation, commercial or charging arrangement) as part of their business plan submissions. Where the company can demonstrate a long term business case for this technique, we will award funding as part of the price control settlement even if, within the price control period, the new technique is higher cost than business as usual.

5.39. We are aware that new information could become available during the price control period to prove the case for further roll out of innovative ideas. In some cases (where there are high upfront costs and/or the roll out produces outputs which are not rewarded in the current price control period) there is a risk that companies will delay roll out until the next price control period, subject to the necessary allowed revenues being awarded.

5.40. We are concerned that roll out delays are more likely in relation to innovative solutions aimed at bringing an environmental benefit than those which are primarily aimed at improving operational efficiency. The pace of change associated with the low carbon transition and the degree of learning that is going on in this space mean that the business case for innovative environmental solutions is likely to evolve quickly. Equally, the difficulty network companies have in capturing the benefits they bring to the wider society as well as the upfront effort in making the associated cultural and commercial changes may put the company off rolling it out in the absence of any adjustment to their allowed revenues. We are concerned that with an 8 year price control settlement, these factors could delay the achievement of important environmental benefits for several years.

5.41. We are therefore minded to include a revenue adjustment mechanism within the price control which allows companies to apply within the price control period for additional funding to roll out innovative solutions. Funding would be provided through a company's allowed revenue using the standard capitalisation ratio. We propose that innovation roll out would be funded only where:

- the innovative solution has been proven to be beneficial to facilitating the low carbon energy sector
- the innovation facilitates the achievement of environmental outputs in place at the start of the price control, or introduced at the mid-term review, and the company agrees to committing to delivering enhanced outputs in return for funding
- the innovation has insufficient commercial benefits within the remainder of the price control period to justify the company undertaking it
- the additional net funding required to roll out the innovation is sufficiently material to prevent the company from undertaking the roll out.

5.42. We set out two options for this mechanism below:

- **Option 1:** Include an annual opportunity for network companies to apply for roll out funding. This option would minimise the time a company would need to wait to receive funding for implementing an innovative solution. There are concerns that this option could require significant resources on the part of both the network companies and us if there is a significant number of good quality applications for additional funding brought forward. However we would not expect projects to be brought forward in the early years of the price control, since this innovation should have been included within the business plan. Similarly there may be little justification for bringing forward projects in the last few years of the price control.
- **Option 2:** Include a single opportunity for network companies to apply for roll out funding at the mid-point of the price control period. This would reduce the funding gap for this type of innovation project (although would still require projects to wait up to four years), while also limiting the resource required for application and project assessment.

5.43. We are seeking views on whether we should include such a mechanism and if so, whether we have set the right criteria and at what points in the price control period this opportunity should be available.

6. Efficiency incentives and IQI

Chapter Summary

This chapter sets out our proposed approach to efficiency incentives and to the operation of the information quality incentive (IQI). It summarises the role of the efficiency incentive rate in the RIIO framework and provides further information on how the efficiency incentive rate would be implemented. The level of the efficiency incentive rate for each company would be determined through the IQI. We provide our proposed approach to the calibration of the IQI, including the range for the efficiency incentive rate that we envisage across network companies. The final part of this chapter discusses some specific issues that arise in the application of the RIIO framework to the efficiency incentives for the gas transmission company.

Question 1: Do you agree with our proposed approach to the implementation of the efficiency incentive rate? Do you have views on the intergenerational impact?
Question 2: Do you agree with our proposed range for the efficiency incentive rate?
Question 3: Do you agree with our proposed approach to the calibration of the IQI?
Question 4: Do you agree with our proposals for the application of the RIIO approach to efficiency incentives to the areas of gas transmission expenditure that are currently covered by the suite of separate incentive schemes set at TPCR4?
Question 5: Specifically, do you agree with our proposals to apply the same efficiency incentive rate, and to have no caps and collars? Do you have any views on the potential downsides and risks to consumers?
Question 6: Do you have views on the scope for alignment between the TO and SO incentive schemes, including greater alignment than we have proposed?

If you disagree with our proposals in these areas, please explain the basis for an alternative approach.

Efficiency incentive rate

6.1. We want to ensure that network companies face strong financial incentives to control their costs and to seek out and implement delivery approaches that provide better value for money for existing and future consumers.

6.2. Two elements of the RIIO framework are designed, in particular, to achieve this:

- We will commit to a fixed and symmetric "efficiency incentive rate" for each company. This will give companies a clear and strong financial stake in restraining, and where possible reducing, the costs of delivering outputs over the price control period.
- We will commit to not making retrospective adjustments to revenue in the event that costs turn out to be different to what was assumed in the price control itself, save through the application of the efficiency incentive rate. We will only consider using 'ex post adjustments' if outputs are not delivered or if a company has manifestly wasted money.

6.3. Further information on these elements of RIIO is provided in the 'RIIO handbook' (Chapter 10).

6.4. The efficiency incentive rate represents a commitment to the way that the revenues that a network company is allowed to collect from consumers will adjust upwards or downwards in light of what it actually spends during the price control period. This has sometimes been called the 'sharing factor' in the past.

6.5. If the efficiency incentive rate is set at 40 per cent, the intention is that company's investors will earn £40 profit (before tax) for each £100 that the company saves during the price control period and bear £40 (before tax) of each additional £100 the company spends. The remainder will be passed on to consumers through lower or higher network charges in the future.

6.6. The efficiency incentives are about risk-sharing. Investors and consumers will share the benefits when the company delivers outputs for less money than we envisaged when setting the price control. Similarly, investors and consumers will share the additional costs if the company spends more money than envisaged. The level of the efficient incentive rate determines the extent to which additional costs or savings are borne by investors or consumers. The higher the efficiency incentive rate, the more investors are exposed to the network company delivering at higher cost than expected and the more they stand to gain if the network company can deliver at lower cost.

6.7. The network company will face the same efficiency incentive rate for the duration of the price control period and regardless of whether it has spent more or less than envisaged. The same efficiency incentive rate will also apply to operating expenditure and capital expenditure. This will reduce the risk that decisions may be distorted in favour of capital expenditure solutions.

6.8. We set out our proposed range for the efficiency incentive rate in the section below on the IQI.

Implementation of the efficiency incentive rate

6.9. In line with the RIIO framework, we are proposing two changes to the way that the efficiency incentive rate is implemented compared to corresponding efficiency incentives in previous price controls:

- The efficiency incentive rate would be implemented through revenue adjustments made annually during the price control period, rather than waiting to the next price control review. We propose that any revenue adjustment due under the efficiency incentive rate is made two years after the relevant expenditure is incurred. This time delay is needed because of the delay in expenditure data becoming available and so that revenue adjustments can be calculated in good time to enable notifications to network users of changes in charges.

- The level of the efficiency incentive rate will determine the extent to which the RAV is adjusted in light of a given over-spend or under-spend. For instance, in the case of an over-spend in a given year, there will be an upward adjustment to the RAV but, as the incentive rate will be above zero, the adjustment will be smaller than the overspend itself. The higher the incentive rate, then more of any overspend is borne by the company. The difference between the actual overspend and the RAV adjustment will therefore be greater. The RAV will not track actual expenditure (as under current price controls) but reflect a combination of expenditure forecast by us at the price control review and the actual expenditure incurred.

6.10. We now provide further information on how this would work in practice. We are consulting on this approach and welcome views of stakeholders.

6.11. At the price control review, we will be setting a level of base revenue that reflects our view on the company's efficient expenditure requirements for each year of the price control. This view will be informed by the company's forecasts and our own assessment. In each year of the price control period, the company's actual expenditure may be higher than this view (which we call an over-spend) or lower (an under-spend). The implementation of the efficiency incentive rate requires rules on the way in which over- and under-spends affect a network company's allowed revenues (including through impacts on the RAV).

6.12. We describe our proposals below in the case of a specific example of a £100 over-spend and a 40 per cent incentive rate.

- In the first step, we would apply the efficiency incentive rate to the value of the over-spend or under-spend. If the efficiency incentive rate is 40 per cent and there is an over-spend of £100, this means that investors should bear £40 of the over-spend and consumers should bear the remaining £60. To implement the efficiency incentive rate, we need to make adjustments so that the network company can recover the additional £60 from consumers.

- In the second step, we recognise that there has been a two-year time delay between the year in which the additional expenditure was incurred and the year in which it will first be able to collect additional revenue in respect of that over-spend. We would have rules to make an upward adjustment to the £60 to compensate for the financing costs of this delay (eg using WACC as a measure of financing costs). We suppose for simplicity that, after applying these rules, we have £65 to recover from consumers.

- In the third step, we would determine the extent to which the additional revenue is to be recovered gradually from current and future consumers via the RAV rather than from current consumers in the next charging year. At the price control review, we will have decided on a fixed proportion of costs that are to be added to the RAV and would use this proportion to make this allocation. For instance, if the fixed proportion was 85 per cent, then around £55 would be added to the RAV and the remaining £10 would be recovered from allowed revenues in the next charging year.

- The revenue adjustment for that year would then comprise the money to be recovered immediately from current consumers (£10) plus a depreciation allowance and an allowed return in respect of the addition to the RAV (here, the RAV addition is £55). In subsequent years, allowed revenues would reflect the depreciation and allowed return on this RAV addition, until it is fully depreciated.

6.13. Corresponding revenue adjustments in the opposite direction would be made in the case of an under-spend, which would reduce the revenue the company is allowed to collect from consumers (and its RAV).

6.14. We would not necessarily need to re-open the company's regulatory asset value (RAV) annually to make these annual adjustments. Instead, these revenue adjustments could be calculated using a tally of RAV adjustments, to which the depreciation policy and WACC established at the price control review would be applied. The outstanding tally could then be added to the opening RAV at the next price control review.

6.15. This is a different approach to the way in which the corresponding efficiency incentives are implemented under existing price controls (eg the capital expenditure incentive introduced for transmission companies at TPCR4). Under existing approaches, the RAV is adjusted to track actual expenditure and investors are exposed to the efficiency incentives through separate revenue adjustments, outside of the RAV, during the subsequent price control period. This approach we propose above was included in our RIIO recommendations.

6.16. It is intended to support the effectiveness of the efficiency incentives, in particular by reducing the extent to which a company's actual expenditure affects the value of its RAV. This approach would also bring a fairer sharing of over- and under-spends between current and future consumers and would have a smoother impact on companies' cash-flows. We welcome views on this change.

Information quality incentive (IQI)

6.17. We introduced a mechanism to incentivise accurate cost forecasts and efficient capital expenditure at the DPCR4 price control (then known as the 'sliding scale mechanism' but now referred to as the information quality incentive or IQI). The IQI has subsequently been refined in GDPCR and DPCR5. At DPCR5 the scope of expenditure covered by the IQI was extended, and it included network operating costs and closely associated indirect costs.[16]

[16] Indirect costs are broken into two categories: business support, and closely associated indirect costs. Closely associated indirect costs include network policy (including research and development), network design and engineering, engineering management and clerical, wayleaves administration, control centre, system mapping and health and safety functions.

6.18. Under the RIIO model, we intend to continue to use the IQI to encourage network companies to provide business plans that reflect best available information about future efficient expenditure requirements.

6.19. Our 'Handbook for implementing the RIIO model' (October 2010) elaborated: "The Information Quality Incentive (IQI) is used to set the strength of the upfront efficiency incentives each company faces according to differences between its forecast and our assessment of its (efficient) expenditure requirements. The aim of the tool is to encourage companies to submit more accurate expenditure forecasts to Ofgem". In particular, the IQI will provide:

- an additional financial motivation for companies to spend the time and resources necessary to produce high-quality and well-justified business plans
- and a financial deterrent against the submission of inflated expenditure forecasts.

6.20. We will calibrate the IQI to ensure (i) that we retain sufficient control over the strength of the upfront efficiency incentives and (ii) that the way that the IQI is integrated into the price control review process allows the option of fast-tracking a company that provides a sufficiently well-justified business plan.

6.21. As part of the calibration of the IQI, we consider the case of a company which submits a forecast of its expenditure requirements over the price control period that matches our own assessment of that company's efficient expenditure requirements. In this case, the company's forecast is 100 per cent of ourassessment. Our proposal is that we would calibrate the IQI so that such a company would be able to achieve a return equal to our estimate of its cost of capital, if it were then to spend, over the price control period, the amount it had forecast (leaving aside the impact of other incentive schemes on the company's returns). Again this is different from current price control reviews where a company with 100 per cent would earn additional returns on top of baseline cost of equity.

6.22. Under this approach, companies that submit expenditure forecasts that are higher than our assessment of their efficient expenditure requirements could earn returns lower than our estimate of their cost of capital unless they were able to deliver outputs at lower costs than our assessment or to earn financial rewards through other incentive schemes. Our estimate of companies' efficient expenditure requirements will be reasonable, and based on a range of information. For more information see 'Supplementary Annex – Tools for cost assessment'.

6.23. A necessary feature of IQI is that different companies will face different efficiency incentive rates. The efficiency incentive rate for a specific network company will depend on the ratio between its expenditure forecast and our assessment of its expenditure requirements as well as the parameters used to calibrate the IQI. Whilst this means that we cannot apply the same efficiency incentive rate across all companies (eg 50 per cent), we can operate the IQI in a way that allows us to control the broad level and spread of the efficiency incentive rate.

6.24. We propose a range for the efficiency incentive rate of 40-60%. We welcome views on this range.

6.25. Appendix 3 shows an indicative IQI matrix. This would contain a possible range of efficiency incentive rates from 40-60% if company forecasts were between 100-140% of our baseline.

6.26. During the price control review we will adjust the IQI matrix/calibration, if necessary, to ensure that the actual efficiency incentive rates that companies would face would not lie significantly outside our desired range.

6.27. In the case of transmission, we are also considering the potential for greater alignment of TO and SO incentives. It is possible that future thinking in this area leads us to the view that the range of efficiency incentive rate proposed above (40-60%) would not be appropriate to apply across all TO and SO cost categories and that an alternative range is needed. But we do not expect to reduce the lower end of the range (eg the 40 per cent).

Efficiency incentive: excluded costs

6.28. In DPCR5 we drew a distinction between direct costs (and closely associated indirects) which were subject to an efficiency incentive rate in the range of 45-51 per cent, and business support and non-operational capex which were fully expensed and effectively subject to a 100 per cent incentive rate or sharing factor.

6.29. Experience suggests that this was an unnecessary complexity and that including all costs within the scope of a single efficiency incentive would be simpler to operate and would eliminate boundary issues.

6.30. We intend to take this simpler approach for RIIO-T1 and GD1 and to compensate for this widening of the scope of equalised incentives and the removal of cost categories attracting 100 per cent by increasing the incentive rates that apply overall.

6.31. We are proposing that real price effects (RPEs) should form part of the application of the IQI matrix together with other costs. This helps ensures that companies have appropriate incentives to submit robust forecasts for RPEs. However, this is a change in approach from DPCR5, where RPEs were excluded from the application of the IQI matrix but subject to the efficiency incentive rates. We welcome views on whether this change is appropriate.

6.32. A few small cost categories, such as traffic management permit fees, fines and penalties, will be excluded from the application of the efficiency incentive rate and continue to attract a 100 per cent incentive rate.

Treatment of groups

6.33. It is our intention to continue the practice of GDPCR and DPCR5 in establishing IQI ratios by comparing the sum of all expenditure within a group of companies, but only within a sector. NGG's gas distribution companies will be considered as a group, but NGET and NGG will be considered individually.

Additional income: the point of comparison

6.34. Fast track companies (see Chapter 3) will only make one submission and will face the maximum efficiency incentive rate available in the mechanism. In the example above, this would be 60 per cent. If the IQI is subsequently re-calibrated, the fast-tracked company will not lose out on any financial rewards that it would otherwise have received through the IQI (taking its expenditure forecast and our acceptance of this forecast as given).

6.35. For each company that is not fast-tracked, we will produce our own view of its expenditure requirements (drawing on the company's plans, and revisions to the plans, where these are well-justified). For these companies we will make multiple submissions so comparisons against baseline can be made at various points. We have considered the range of options set out below:

- operator last forecast (final company submission) versus our last (as per DPCR5)
- operator first forecast (July 2011 plan) versus our last
- weighted allocation at each pair of forecasts.

6.36. After considering the implications in terms of the potential for distortion and complexity of operation, our preference is to compare Operator first forecast against our last (the second option). In making this comparison we recognise that there may be a need to adjust operator forecasts based on changes in outputs that have been agreed during the price control review process and which are incorporated in the our last forecast. More generally, common assumptions on output levels and volumes will be essential across the different business plans at each stage of comparison. Our assumptions and company assumptions would need to be common at each stage.

Gas transmission efficiency incentives

Existing gas transmission efficiency incentives

6.37. NGG is currently subject to a suite of financial incentives to reduce and restrain its costs, insofar as is possible whilst meeting its licence obligations. These correspond, in some ways, to the upfront efficiency incentives that we have discussed above. This section discusses the potential implications of the RIIO approach to efficiency incentives for the gas transmission price control.

6.38. At TPCR4, we set separate incentive arrangements for a number of different categories of NGG's expenditure in relation to the gas transmission network:

- non-load related capital expenditure under the capital expenditure incentive
- load-related expenditure under the revenue drivers for incremental capacity
- the costs of buy-back under the incremental entry and incremental exit buy-back incentives
- the costs of other entry capacity buy-back under the entry capacity operational buy-back incentive
- the costs falling under the constrained LNG incentive
- the long-term contracting costs falling under the long-run contracting incentive at five specific exit points in the south and south west of England.

6.39. There are further incentive schemes that apply to other aspects of NGG's activities as system operator but which were not established or calibrated as part of TPCR4.

6.40. 'Supplementary Annex – RIIO-T1 Outputs and incentives' provides further information on the existing incentive schemes on incremental entry and exit capacity buy-back costs and entry capacity operational buy-back costs.

6.41. In addition to the specific incentive schemes, the existing fixed term price control provides NGG with financial incentives to control some (but not all) of NGG's operating expenditure that does not fall under the categories above.

6.42. Across these different categories of expenditure there are significant differences in the way in which changes in NGG's expenditure affect its future revenue allowances and, in turn, its profits. By the same token, there are differences in the extent to which variations in NGG's costs during the price control period are passed through to consumers in terms of higher or lower prices.

6.43. For instance, an incentive rate of 25 per cent applies under the capital expenditure incentive scheme, an incentive rate (or sharing factor) of 50 per cent applies under the entry capacity operational buy-back incentive scheme and an incentive rate of 100 per cent applies under the incremental entry and exit buy-back incentive schemes. These incentive rates determine the extent to which investors in the network companies are exposed to variations in outturn costs, rather than these being passed on to consumers (see the first section of this chapter).

6.44. There are also caps and collars around a number of the incentive schemes, including the incremental and operational buy-back schemes. The effect of this system of caps and collars is as follows: (i) if actual costs over a defined period (for example, a month) exceed some upper threshold, 100 per cent of the costs in excess of the threshold would be passed on to consumers through higher prices in future years; and (ii) if actual costs over that period are below some lower threshold, 100 per cent of costs saved below the threshold would be passed on to consumers through lower prices.

Issues with existing arrangements

6.45. These arrangements contribute to the complexity of the regulatory framework for the gas transmission network. The existing arrangements also create risks of distorting NGG's expenditure decisions between different categories of expenditure. The differences in the efficiency incentive rate (or sharing factor), and the various caps and collars, may provide financial incentives for NGG to skew its approach to output delivery towards those categories of expenditure for which the greatest proportion of costs are passed on to consumers, and away from those categories of expenditure which most influence its profits. This may work against the achievement of value for money for consumers.

6.46. For example, under the existing arrangements for incremental entry and exit capacity, NGG's allowed revenue is adjusted, after a five-year time lag, in light of the amount of capital expenditure it actually spent to deliver incremental capacity. These arrangements limit the extent to which NGG is financially exposed to higher or lower costs of delivering incremental capacity. NGG is exposed to a much greater extent to the costs of any buy-back needed to meet incremental capacity obligations. These arrangements may provide financial incentives that render NGG reluctant to incur buy-back costs even if this would allow it to meet its incremental capacity obligations at lower overall costs.

Proposed approach under RIIO-T1

6.47. The intention under the RIIO framework is that there will be single efficiency incentive rate (or sharing factor) that applies to all areas of expenditure. The efficiency incentive rate is discussed at the start of this chapter.

6.48. The existing gas transmission efficiency incentives set out above are not, at face value, compatible with the RIIO framework. However, the differences identified above arise not only between different areas of TO expenditure, but also between TO and SO expenditure (for example, buy-back costs are SO costs).

6.49. We invite proposals on a change to an approach under which:

- the same efficiency incentive rate applies across all categories of NGG TO expenditure and the areas of SO expenditure covered by the incentive schemes set out above (for example, buy-back costs), but excluding expenditure items identified for separate treatment as part of an uncertainty mechanism (for example, Ofgem licence fees)
- no caps and collars apply to individual categories of expenditure.

6.50. Our approach to the implementation of the efficiency incentive rate is described towards the start of this chapter. Under this approach, the size and profile of the revenue adjustment would be the same across each category of expenditure. So, a £100 increase in capital expenditure on incremental capacity would affect NGG's allowed revenues in the same way as a £100 increase in incremental buy-back costs. There would still be a revenue driver for incremental capacity (see 'Supplementary

Annex – Uncertainty mechanisms') but expenditure incurred to deliver incremental capacity would be treated in the same way as other types of expenditure.

6.51. We would need to ensure that the relevant SO costs for example buy-back costs, would be captured under the category of expenditure to which the general efficiency incentive rate is applied.

6.52. Under this approach, we would have the ability to include an allowance for expected (efficient) costs under each expenditure category as part of the calculation of base revenue under the price control. For example, an estimate of NGG's requirements for operational buy-back costs over the price control period could be included as part of base revenue. Such allowances would correspond to the targets under the existing incentive schemes for buy-back costs.

6.53. This approach could reduce the risks of distortions to NGG's expenditure decisions and, in turn, of consumers being exposed to unnecessary costs.

6.54. This approach could also reduce the administrative burden and complexity of the price control. It would reduce the number of different parameters that need to be set at the price control review (for example, targets, sharing factors, caps and collars). It would allow resources to be used more effectively elsewhere.

6.55. We welcome views on the potential downsides and risks to consumers of the approach set above. We recognise that the suite of separate incentive schemes under the existing arrangements reflects, in part, differences between expenditure categories in terms of the risks of expenditure requirements being much higher or lower than forecast. We turn to such risks below.

6.56. Another potential concern is that applying the efficiency incentive rate to the areas of expenditure covered by the incentive schemes set out above, could create distortions to expenditure decisions (or cost allocation) with other areas of National Grid's expenditure that are not subject to the efficiency incentive rate. There might be other SO costs not covered by these schemes or, potentially, costs of other companies within the NG group. For instance, at TPCR4 a 100 per cent incentive rate was set for the constrained LNG incentive scheme, with no caps and collars. This was explained as follows: *"Due to NGG NTS's ownership of constrained LNG storage facilities (through National Grid LNG), the scheme is separate from the exit investment scheme with no caps and collars and 100 per cent sharing factors. This structure eliminates the scope for distorting behaviour between the regulated gas transmission business and the LNG businesses that are wholly owned by NG." (TPCR4 final proposals, appendices, page 18).*

6.57. If there are concerns about setting the same efficiency incentive rate for two different categories of expenditure, it would be relevant to consider the extent to which setting different rates could bring risks of inefficient decisions. In some cases, the categories may be such that a different incentive rate would not bring a sufficiently high risk of distortions to expenditure decisions to warrant equalisation.

6.58. The proposals we are consulting on in this document do not extend beyond the TO and SO incentive schemes that are listed at the start of this section. NGG has recently consulted on two-year SO incentive schemes for two of NGG's other gas SO incentives which would be implemented from 1 April 2011. We are currently considering the extent to which it is appropriate to introduce a roll over of NGG's other gas SO incentives (which are currently due to expire at the end of March 2012) so that they also expire on 31 March 2012. We intend to issue an open letter in early 2011 setting out the way forward with respect to these SO incentives. We consider that there are potential benefits arising from the ability of NGG to make decisions based on more compatible incentives across TO and SO activities. We seek stakeholders' views on the scope for greater alignment than proposed above.

Managing risks under a single efficiency incentive rate

6.59. The risk of NGG incurring buy-back costs may be relatively low. NGG has not incurred any buy-back costs since July 2006. However, there is a possibility that NGG can incur large buy-back costs over a short period of time. For instance, in July 2006 NGG incurred £28m in constraint management costs in just five days. There is also considerable potential for very large buy-back costs to be incurred on delays to delivery of incremental capacity, as shown in the table below. This shows the cost of buy-backs for each day and month of delayed delivery of the incremental capacity at two outstanding incremental entry capacity projects (when the maximum buy-back cost of 0.52/kWh/day is assumed).

Table 6.1 Buy back costs for delays to delivery of incremental capacity

Entry point	Capacity (GWh/d)	Buy-back Cost (£m)	
		Per day	Per month
Caythorpe	90	0.47	14
Hole House farm	165	0.86	26

6.60. Under the approach above, NGG's financial exposure to unexpectedly high buy-back costs would be affected by the level of the efficiency incentive rate. The lower the efficiency incentive rate, the more protection NGG would have against the risks of incurring very high costs. We would need to take account of these risks in setting the range for the efficiency incentive rate for transmission network companies.

6.61. We have proposed that no caps and collars would apply to individual categories of expenditure.

6.62. If necessary, we could introduce an uncertainty mechanism which provides some additional protection to NGG against the risks of very large buy-back costs. We could develop a mechanism such that if NGG's expenditure in a given year (or month or other period) exceeded a certain threshold, the expenditure in excess of that amount would be passed on to consumers and recovered by NGG.

6.63. The use of such a mechanism would need to be justified in terms of the benefits it would bring to consumers. For instance, it might contribute to a lower cost of capital by reducing NGG's exposure to extreme outcomes in terms of buy-back costs. It would need to be designed in a way that can mitigate potential downsides.

6.64. Such a mechanism poses risks of distorting expenditure decisions and dampening efficiency incentives. These risks might be lower, although not eliminated, if the mechanism and threshold was applied to aggregate expenditure across all categories of NGG expenditure subject to the efficiency incentive rate, rather than for specific categories of expenditure.

6.65. In taking a view on the need for such a mechanism, it would also be important to understand other potential ways in which NGG might be able to protect itself against extreme buy-back events (for example, could there be opportunities for a third party to provide insurance and for consumers to fund the insurance costs?).

Interactions with treatment of revenues from sale of non-obligated capacity

6.66. At present the sale of non-obligated capacity is part of the operational buy-back incentive scheme for entry. This effectively means that the proportion of revenues from sale of non-obligated capacity that NGG retains (rather than being passed on to consumers) is the same as the proportion of operational entry buy-back costs that it is exposed to (currently 50 per cent). We propose that, if the gas transmission efficiency incentives are consolidated as proposed above, the proportion of revenues from the sale of non-obligated capacity that NGG would retain would be set equal to the efficiency incentive rate.

Appendices

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Appendix 1 - Summary of questions

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Question 6: Do you have views on the scope for alignment between the TO and SO incentive schemes, including greater alignment than we have proposed?

If you disagree with our proposals in these areas, please explain the basis for an alternative approach.

Appendix 2 – Initial impact assessment: Innovation stimulus and innovation allowance

Summary

1.1. This initial impact assessment (IA) sets out the potential impacts, costs and benefits of the elements of the innovation stimulus package that we are consulting on in Chapter 5 of this document. These primarily include the level of funding and the scope of the innovation stimulus. This IA builds upon the impact assessment included with the RIIO proposals, and will be updated in future as we develop other aspects of the stimulus.

1.2. Chapter 5 also consults on a mechanism for incentivising innovation in the company business plans. This innovation allowance would provide a limited amount of innovation funding directly to each network company, against an innovation strategy and identified outputs.

1.3. The assessment of benefits in this IA is mainly qualitative. This is due to uncertainty around the future shape of the sustainable energy sector and its impact on networks. We conclude that the potential benefits of the innovation stimulus, together with the innovation allowance, are likely to considerably exceed the costs. Furthermore, the cost of adapting networks to deliver a sustainable energy sector could be significantly higher without further network innovation. It is therefore important to continue to provide incentives for testing new technologies and new operational and commercial arrangements. We consider that there is a strong case for introducing the innovation stimulus and the innovation allowance as part of RIIO-T1 and GD1 as set out in Chapter 5.

Key issues and objectives

1.4. The future use of electricity and gas networks is highly unpredictable. A variety of initiatives could impact the design and operation of the networks and the commercial role of network companies. These include the impact of 'smart' energy grids, two-way energy flows, active demand-side management, biogas injection onto the network or deployment of energy storage. Changes will require network companies to respond. For example, they may need to introduce more automation onto the networks to adapt to quickly changing use patterns, or to connect users quickly without delay for network investment. It may also change the commercial relationships which network companies need to enter into.

1.5. These requirements will need network companies 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. We anticipate that over £30bn will need to be spent on networks over the next 10 years. Companies need to be forward looking and to explore how they can ensure their investments are cost effective and fit for purpose.

1.6. The RIIO model has several elements that should help promote technological, operational, commercial and charging innovation. The outputs-led approach should incentivise network companies to find new ways to deliver the primary outputs. The longer-term price control framework will encourage network companies to justify projects over the lifetime and in so doing depart from 'business as usual'. Business plans

justifications should extend beyond the price control period, enabling companies to demonstrate the full commercial benefits of adopting new technologies and innovation.

1.7. However, the RIIO framework may not sufficiently incentivise innovation projects which do not provide commercial payoffs within the period, but do deliver benefits to current or future consumers. Without additional incentives, these projects may not go ahead. Network companies could, for example, be deterred by risks to other outputs or uncertainty around benefits accruing to the network. Wider benefits could include those which accrue outside of a company's own network, environmental benefits to consumers and the long term network cost to customers. Therefore the RIIO model also includes a time-limited innovation stimulus package to provide the required incentive.

1.8. The innovation stimulus package should encourage network companies to do the following:

- identify trends and developments (for example in government policy) which could influence what customers will want from the network
- identify potential changes to networks, operations and business practices to serve future customers, improving response to changing network requirements
- identify a range of solutions (commercial, operational and technical) that might be applied to meet the future needs of customers
- conduct research and trials to better understand the costs and benefits of these projects, and the technical, commercial, regulatory and legal issues that they create.

1.9. The benefits of learning gained from innovation funded through the innovation stimulus and the innovation allowance would be disseminated throughout the industry.

Options

1.10. First we consider a base case, in which the only incentives to innovate are those included in the RIIO framework. We then compare the impact of additional incentives to innovate through the innovation stimulus and the innovation allowance.

Base case

1.11. Our base case assumes no additional incentives to innovate beyond the RIIO framework itself. The RIIO framework has several elements that will incentivise technological, operational, commercial and charging innovation, including the following.

- the outputs-led approach, which should incentivise network companies to search for new ways to deliver their primary outputs
- the longer-term price control framework, with business plans extending beyond the price control period. This should enable companies to demonstrate the commercial benefits of adopting new technologies and innovation.

1.12. However, as outlined above, the incentives within the RIIO model may be insufficient to deliver some innovation projects which would nonetheless benefit consumers and contribute to sustainability. Trialling new commercial arrangements or technologies could put other output measures at risk.

1.13. The base case therefore assumes that energy networks remain relatively passive with predominantly one-way energy flows. It assumes network companies would

respond to future challenges with conventional low-risk 'business as usual' practices. For example, they may respond to increased network constraints by building additional capacity rather than optimising operation and management of existing assets. They may also delay investment in response to uncertainty.

1.14. This would have a range of consequences. The number of electric vehicles of heat pumps able to connect in certain areas may be limited or high cost, and connecting renewable generation could be costly and potentially delayed by any prerequisite network reinforcements. Network companies may contribute little to facilitating renewable generation connections or changing household consumption behaviours (assuming no change in their statutory or licence obligations). Ultimately network companies could generate barriers to changes which would contribute to a sustainable energy sector and the low-carbon economy.

Options – innovation stimulus

1.15. The innovation stimulus aims to incentivise new approaches which depart from 'business as usual'. In combination with incentives under the RIIO framework, this will encourage network companies to consider longer-term constraints and considerations. In particular, it will encourage network companies to consider facilitating a sustainable energy sector. We anticipate that network companies' thinking will evolve over the next price control period (RIIO-T1 and GD1) in response to future developments. We also expect network companies to monitor stakeholders' views and the impacts of various government policy initiatives.

1.16. 'Business as usual' may be the most cost effective way to meet future network needs in some cases. However, some instances cannot be verified without trialling innovative approaches. Moreover, innovation will reveal areas in which 'business as usual' is not in the best interests of current and future consumers. Innovation which is trialled with one objective may reveal alternative unanticipated benefits.

1.17. The innovation stimulus builds on the LCN Fund and is aimed at incentivising larger projects. It would provide partial project-specific funding during the price control through an annual competition. Funding will be allocated separately for gas and electricity. There are likely to be significant overheads associated with applying and running the annual competition. For smaller projects these overheads may be disproportional to the potential benefits. We are therefore considering an alternative funding mechanism for small projects in the form of an innovation allowance. In Chapter 5 of this document we consult on the introduction of an innovation allowance and the mechanism for funding such an allowance.

1.18. The innovation allowance would be similar to the existing Innovation Funding Incentive (IFI) and complement the innovation stimulus.[17] Stakeholders have indicated that the IFI is a valuable mechanism and should be retained. Table 1 summarises the two options.

[17] The IFI encourages innovation in energy networks by allowing 0.5% of allowed revenue to be spent on innovative projects meeting criteria determined by Ofgem. The IFI is self-certified, meaning network companies publish details of their projects and how these meet the relevant criteria annually.

Table 1 - Options considered in this consultation

Option	Project assessment	Funding provided	Network company reward/penalty	Risk borne by:
Innovation stimulus	During Price control - Project proposals submitted during price control period	<80%	Reward based on project outcome	Shared
Innovation stimulus + Innovation allowance	During Price control - Project proposals submitted during price control period; Allowance agreed at start of price control	<80% Up to 2%	Reward based on project outcome Allowance based on innovation strategy	Shared

Funding

1.19. The proposed funding mechanism for the innovation stimulus is based on that used for Second Tier of the LCN Fund. There would be two separate funds, one for electricity and one for gas. Eligible companies would be able to compete for partial funding in the annual competition. Partial funding would be provided for a limited number of projects of significant scale and potential for national rollout. The eligibility criteria will be consulted on later in the process. The innovation stimulus mechanism would allow costs of the projects to be socialised across all customers in the expectation that benefits would accrue to all network customers in GB.

1.20. The innovation allowance is a limited amount of innovation funding for each network company. This would provide network companies with flexibility to react quickly to local circumstances and fund small innovative projects without having to go through the annual competition. We aim to minimise overhead, while retaining oversight of spending. The allowance would require companies to self-certify funding against specific criteria set by us, including reference to their innovation strategies. We would have the right to disallow any mis-spent monies. To further incentivise innovation, funding would be allowed on a use it or lose it basis.

1.21. We believe it is important to incentivise efficient expenditure on innovation, which could potentially be achieved by linking funding to outputs in some way. This would also be consistent with the objectives of RIIO. The options being considered as set out in the main document, include:

- **Option 1:** A fixed percentage of regulated revenue allocated to the innovation allowance, with self-certification against a set of qualification criteria, similar to the existing IFI. To be eligible for the allowance the company will be required to set out an innovation strategy, with outputs against which the strategy can be assessed.
- **Option 2:** An outputs-based approach, where companies bid as part of their business plan for a level of expenditure contingent upon delivering linked outputs. These outputs will be specified in an innovation strategy – the quality of which will drive the level of funding provided.

1.22. The level and range of allowed expenditure would depend on the mechanism, which could range from 0.5 per cent of regulated revenue up to a maximum of two per cent. This would imply that the funding for the innovation stimulus would range from

£20-£60m per annum for electricity transmission, gas distribution and gas transmission combined.

Level of funding for the innovation stimulus

1.23. The innovation stimulus builds on the example of the LCN Fund. We therefore used the level of funding available from the LCN Fund as a starting point for the innovation stimulus. To determine the appropriate level of funding in each network area we considered a range of factors. These included the level of certainty over future developments in each area and the scope for innovation to deliver improved sustainability and a low-carbon future. We therefore considered the potential number and scale of future projects and the extent to which network companies already have incentives to innovate through capturing the benefits of innovation.

1.24. Our initial view is that £25-£35m per year should be available for electricity transmission, around half that for electricity distribution. We are minded to set the level of funding for gas innovation stimulus at £45-£50m per year, available to both gas distribution and transmission. This is based on the lesser need and scope for gas to innovate as set out in Chapter 5.

Impacts on consumers

Cost to consumers

1.25. Over the eight year price control period, the total amount of the innovation stimulus is proposed to be £200-£280m for electricity and £360-£400m for gas. Funding will be provided on a use it or lose it basis. Over the same period, the total amount for the innovation allowance could range from £160-£640m. This will depend on the mechanism used and the percentage of allowed revenue used.

1.26. We believe the cost to the consumer of the innovation stimulus new mechanism would be, on average, around £1-1.35 per electricity customer per annum and £2.00-£2.30 per gas customer per annum. The effect of the innovation allowance on customers could be up to is expected to range between £0.20-£0.60 per electricity customer per annum and around £0.70-£2.80 per gas customer per annum, assuming that between 0.5 per cent and two per cent of regulated revenue is allowed for over the price control period.[18]

1.27. This is a significant additional short term cost that consumers would need to bear as compared to the base case. However, the base case could result in much larger additional costs in the medium to long term. The nature of innovation and uncertainty over future networks make it difficult to quantify these potential costs. We consider orders of magnitude of potential base case costs below.

1.28. The Government has committed to delivering 15 per cent of final energy consumption using renewable energy sources by 2020. The lead scenario for meeting this commitment entails more than 30 per cent of electricity generation (including two per cent small-scale); 12 per cent of heat generation, and 10 per cent of transport

[18] These are approximate values and assume a flat profile of funding over the eight year price control and are based on approximately 26 million electricity customers and 22 million gas customers.

energy all from renewable sources. The government estimates this could require investment of the order of £100bn.[19]

1.29. The base-case risks the companies not undertaking all the innovation required for them to understand their required role in the low carbon economy. This could mean that significant investment is required to prevent the networks being barriers to the achievement of these targets, or the inability of the networks to accommodate the required low carbon initiatives could lead to the non achievement (or delayed achievement) of the targets. The UK could incur a fine for not meeting its target as well as risking billions of pounds in carbon savings foregone.

1.30. This could lead to significant money being spent under future price controls (RIIO-T2 and RIIO-GD2) on the basis of insufficient knowledge and learning. Insufficiently well-informed investment could lead to widespread investment in technologies, business practices or commercial arrangements which do not achieve the required outcomes or put other network outputs at risk. In some future gas scenarios, this could risk ineffective investment being recovered over a diminishing customer base.

1.31. There is also a risk that some of the investment network companies make in RIIO-T1 and GD1 (under the base case) may become redundant before the end of its useful life. This could happen if it cannot accommodate the requirements of a sustainable energy network and has to be replaced by additional, new investment. To put this risk into context we estimated[20] that £200bn of investment is needed over the next 10-15 years to secure sustainable energy supplies at an affordable price to consumers. Of this total, over £30bn of new investment is needed by energy networks in GB over the next 10 years, with around £16-£18bn of this relating to investment in electricity transmission and gas networks.[21] If five per cent of this investment were to become redundant through the network companies not anticipating future needs, up to £900m would have been spent unnecessarily.

1.32. It should be noted innovation projects qualifying for funding would not be funded solely by consumers. Network companies and licensed non-network companies will have to contribute to the project funding subject to the level of direct benefits. In addition, we are encouraging the network companies to source external funds, for example through external funding mechanisms or from commercial or academic organisations.

1.33. We anticipate that due to the high-profile nature of this fund and the existing commercial interest in initiatives such as smart grids, that significant third party funding should be available. Participants in the innovation stimulus would request project funding from the mechanism net of any external financial contributions.

1.34. Partial funding will be set at 80 percent of project costs, with the implementing company providing the remainder. Given the extent to which the LCN Fund was over-subscribed, we believe this proportion will incentivise sufficiently high-quality applications despite being lower than for the LCN Fund.

[19] The UK Renewable Energy Strategy available for download from http://www.decc.gov.uk/publications/basket.aspx?FilePath=What+we+do%5cUK+energy+supply%5cEnergy+mix%5cRenewable+energy%5cRenewable+Energy+Strategy%5c1_20090717120647_e_%40%40_TheUKRenewableEnergyStrategy2009.pdf&filetype=4

[20] Ofgem, Project Discovery, options for delivering secure and sustainable energy Supplies February 2010 This is available for download from http://www.ofgem.gov.uk/Markets/WhlMkts/Discovery/Documents1/Project_Discovery_FebConDoc_FINAL.pdf

[21] This assumes that a similar amount of capital expenditure allowed for in DPCR5 (£7.2bn) is maintained in the following 5 years, giving £14.4bn out of the £32bn

Consumer risk

1.35. This mechanism aims to balance the short-term and long-term financial risk faced by consumers. In the short term, there is a risk that the all or some projects funded through the innovation stimulus may be unsuccessful, or may fail to produce benefits (future or current) greater than the funds provided. In this case consumers' money has been spent on projects from which the only benefit is any learning.

1.36. The long-term risk is as described for the base case option. A lack of innovation or investment in future flexibility, may mean future networks cannot accommodate the sustainable energy future and energy policy objectives without incurring significant restructuring costs. These costs could have been avoided if anticipated earlier. Moreover, unnecessary the base case risks investments being made in the short term which result in future stranded assets.

1.37. It is our view that costs of the innovation package incurred in the short term are far outweighed by the benefits and the avoided long-term risks.

1.38. If a project is successfully trialled on the network, we can assume that the direct benefits of the trial would accrue to the party implementing the project (be that a network or non-network company). Any benefits of the innovation being rolled out both within a particular network company and across the other network companies would accrue to the consumer. Consumers therefore have potential to receive considerable 'return' on their investment.

1.39. The risks and benefits to the consumer from different types of innovation project which require additional funding are detailed below.

1.40. The value at risk to consumers through funding an innovation project is at most their contribution to funding that project. The potential benefit of an innovation project amounts to any resulting benefits from learning and avoided expenditure. These benefits extend across the network to all companies which benefit from the project learning. Furthermore, projects of this nature could also enable achievement of carbon reduction targets.

1.41. A project that does not produce the anticipated benefits can still provide valuable learning. Failed equipment or practices can inform other network companies to avoid wasted costs or modify future projects accordingly.

1.42. The innovation stimulus would also be time-limited mechanism. Once the incentives embedded within the RIIO framework are found to be encouraging the required innovation, then the innovation stimulus would removed.

Impacts on competition

1.43. The mechanism would provide network companies and appropriately licensed non-network companies to have opportunities to undertake projects. The innovation stimulus provides a competitive situation where all participants have an opportunity to compete for the central funding on a transparent and consistent basis.

1.44. Projects competing under the innovation stimulus would be selected on the basis that they are potentially beneficial for other network companies. As part of the project proposal an applicant would have to identify how they propose to disseminate the project learning and ensure maximum roll out. We consider it vital that the mechanism provides all network companies with equal opportunity to gain the benefits of the innovation developed.

1.45. There is a possibility that a network company may decide not to participate in the mechanism. However, the size, purpose and significance of this proposed mechanism (as with the LCN Fund) means that it has already received significant publicity. Once in operation, there would clearly be a high reputational value to participating. This would increase the incentive for network companies to submit proposals, thereby increasing the competition to gain funding and therefore increasing the quality of projects undertaken. Making the innovation stimulus open to appropriately licensed non-network parties should also encourage competition for funds as well as collaboration between network and non-network companies. It is very likely that non-network companies would have informed and innovative ideas to bring to the table in this area which would drive innovation and it is likely that the network companies would seek these partnerships. However, licensed non-network parties would also have an opportunity to submit their own projects if they are unable to agree terms with a particular network company for a given project.

1.46. Lastly we consider that the proposal would have limited impact on retail supply competition. The innovation stimulus would be socialised across all network customers (separately for electricity and for gas) and hence would not create tariff disturbance to the regional supply market. We do recognise that under the innovation allowance, the level of associated allowed revenue would be company-specific. Some network companies may utilise this funding to a greater degree than others leading to regional differences which could impact regional tariffs differently, for example in gas distribution.

1.47. The innovation stimulus may provide an opportunity for retailers to partner with network companies to develop new retail/ESCO type services, which could provide more opportunities for retail competition.

Impacts on sustainable development

1.48. The objective of the innovation package is to enable the network companies to transition to and deliver a sustainable energy sector. In particular, network companies may need the following functionality:

- accommodating a wide variety of renewable generation types, at a wide variety of voltage levels and in a wide variety of locations
- facilitating the injection of bio-methane into the gas network
- managing increased flexibility of assets on the gas and electricity networks
- effectively utilising information from smart meters and taking advantage of opportunities to maximise benefits realised from this information
- exploring opportunities to adapt existing assets to different uses, such as using the gas network to transport carbon dioxide for carbon capture and storage or accommodating Liquefied Natural Gas
- enabling charging and operation of alternative fuel transport, such as electric vehicles and vehicles powered by gas
- facilitating electricity storage, for example to enable intermittent renewable generation to connect or to reduce required network investment.

1.49. The primary objective of this mechanism is to allow energy networks to contribute sustainable development in the electricity and gas sectors. We consider that without the innovation package, electricity and gas networks could become a barrier to timely progress improving sustainability of the electricity and gas sectors.

Impacts on network companies

1.50. This innovation package is designed to provide incentives to counter network companies' low-risk nature. It therefore aims to reduce network companies' risk exposure to unproductive research of failed trials of non 'business as usual' equipment, practices or commercial arrangements.

1.51. This IA focuses on the elements of the innovation stimulus on which we are consulting. We recognise that other elements of the innovation stimulus, yet to be decided, would impact network companies. We would assess the impacts of those aspects later in the process, concurrent with future consultations.

Impacts on licensed non-network companies

1.52. Our proposals could provide non-network companies with increased opportunities to sell innovative ideas, technologies, business practices or commercial arrangements to network companies. Network companies could also indirectly receive funding if they collaborate with network companies who receive funding.

1.53. Further aspects of the innovation package, such as the potential for non-network company innovation licences would clearly have impacts for these companies. However, these elements of the innovation package are yet to be decided. We will consult on potential impacts later in the process, concurrent with future consultations.

Risks and unintended consequences

1.54. We identify below some key risks of introducing the innovation package. First, the mechanism may not provide sufficient incentives to generate proposals deemed of sufficient quality to receive funding. The outcome would be similar to our base case scenario, but with additional costs incurred in setting up the innovation package. This also risks network companies being a barrier to other innovation in the gas and electricity sectors. However, given the level of interest in the LCN Fund in its first year - We received applications for £153m of LCN Fund Second Tier project funding with a maximum available of £64m and the similar proportion funding available, we do not think this risk is high.

1.55. Another risk is that material benefits resulting from projects funded through the innovation stimulus do not meet expectations. The approval process for the innovation stimulus will be designed to mitigate this risk and the increase in company contribution to project costs will also do this. Furthermore we intend to reduce the risk of lower than expected benefits from innovation allowance spending by requiring network companies to refer to the innovation strategy in their business plan. Moreover, network companies could also realise direct benefits from successful innovation projects. All these factors would encourage network companies and their partners to realise project outcomes. However, we accept that the nature of this mechanism, in funding innovation, is that a percentage of projects would not be successful. Having evaluated this risk against the

cost risks of the base case, we consider the risk of project failure to be acceptable given the costs.

1.56. We consider that there is very limited risk of this mechanism providing network companies with unanticipated extraordinary returns. It is primarily a funding mechanism, based on costs incurred. Companies would be asked to identify the benefits expected from a given project. Further details of funding and competitive criteria for the annual competition will be designed to minimise extraordinary returns, including the requirement to share learning from innovation projects funded through the innovation package.

Conclusion

1.57. We conclude that the benefits that would be derived through this mechanism would considerably exceed the costs. We recognise that there are associated risks, but consider that the risks associated with not innovating are significant and could result in the consumer bearing significant cost and or the energy networks becoming barriers to the achievement of the low carbon targets and the development of sustainable energy networks.

Appendix 3 – Indicative IQI matrix

IQI MATRIX

Operator:Ofgem Ratio	85	90	95	100	105	110	115	120	125	130	135	140
Efficiency Incentive	68%	65%	63%	60%	58%	55%	53%	50%	48%	45%	43%	40%
Additional income (£/100m)	2.0	1.4	0.7	0.0	-0.8	-1.6	-2.5	-3.5	-4.5	-5.6	-6.8	-8.0
Allowed expenditure	96.25	97.50	98.75	100.00	101.25	102.50	103.75	105.00	106.25	107.50	108.75	110.00
Actual Exp												
85	9.6	9.5	9.3	9.0	8.6	8.0	7.3	6.5	5.6	4.5	3.3	2.0
90	6.2	6.3	6.2	6.0	5.7	5.3	4.7	4.0	3.2	2.3	1.2	0.0
95	2.8	3.0	3.1	3.0	2.8	2.5	2.1	1.5	0.8	0.0	-0.9	-2.0
100	-0.6	-0.3	-0.1	0.0	-0.1	-0.3	-0.6	-1.0	-1.6	-2.3	-3.1	-4.0
105	-3.9	-3.5	-3.2	-3.0	-2.9	-3.0	-3.2	-3.5	-3.9	-4.5	-5.2	-6.0
110	-7.3	-6.8	-6.3	-6.0	-5.8	-5.8	-5.8	-6.0	-6.3	-6.8	-7.3	-8.0
115	-10.7	-10.0	-9.4	-9.0	-8.7	-8.5	-8.4	-8.5	-8.7	-9.0	-9.4	-10.0
120	-14.1	-13.3	-12.6	-12.0	-11.6	-11.3	-11.1	-11.0	-11.1	-11.3	-11.6	-12.0
125	-17.4	-16.5	-15.7	-15.0	-14.4	-14.0	-13.7	-13.5	-13.4	-13.5	-13.7	-14.0
130	-20.8	-19.8	-18.8	-18.0	-17.3	-16.8	-16.3	-16.0	-15.8	-15.8	-15.8	-16.0
135	-24.2	-23.0	-21.9	-21.0	-20.2	-19.5	-18.9	-18.5	-18.2	-18.0	-17.9	-18.0
140	-27.6	-26.3	-25.1	-24.0	-23.1	-22.3	-21.6	-21.0	-20.6	-20.3	-20.1	-20.0
145	-30.9	-29.5	-28.2	-27.0	-25.9	-25.0	-24.2	-23.5	-22.9	-22.5	-22.2	-22.0