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RIIO T1
RIIO GD1

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

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Target Audience: Consumers and their representatives, transmission companies, distribution network companies, generators, offshore gas producers/importers, suppliers, shippers, investors, environmental organisations, government policy makers, and other interested parties.

Overview:

RIIO-T1 and GD1 are the first transmission and gas distribution price controls to reflect the new RIIO (Revenue = Incentives + Innovation + Outputs) 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 to promote timely investment in the networks.

Having consulted on our initial strategy for the next transmission and gas distribution price controls, this supplementary annex to the main decision documents sets out our decision on business plans and their assessment, proportionate treatment, innovation, efficiency incentives and third parties' role in delivery. This document is aimed at those seeking a detailed understanding of our proposals. Stakeholders wanting a more accessible overview should refer to the main decision documents.

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Associated Documents

Main decision papers

- Decision on strategy for the next transmission price control - RIIO-T1
  http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1decision.pdf
- Decision on strategy for the next gas distribution price control - RIIO-GD1
  http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/GD1decision.pdf

Links to supplementary annexes

- Decision 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/T1decisionoutput.pdf
- Decision 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/T1decisioncosts.pdf
- Decision 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/GD1decisionoutput.pdf
- Decision 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/GD1decisioncosts.pdf
- Decision 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/T1decisionuncert.pdf

Links to other associated documents

- Providing a greater role for third parties in electricity transmission: Early thinking and options
  http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/thirdpartyrole.pdf
- The Weighted Average Cost of Capital for Ofgem's Future Price Control (March 2011 update) – Report by Europe Economics on behalf of Ofgem
  http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/GD1WACC.pdf
- Decision letter on the regulatory asset lives for electricity distribution assets
  http://www.ofgem.gov.uk/Networks/Policy/Documents1/assetlivedecision.pdf
- 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

- Onshore transmission assets and risks associated with renewable projects with potentially limited lives - Report by CEPA on behalf of Ofgem http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/ceparenewablelives.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
- Handbook for implementing the RIIO model - Ofgem, October 2010 http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf
- Cost of debt index model for RIIO-T1 and GD1 http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/costofdebtT.xls

- A glossary of terms for all the RIIO-T1 and GD1 documents is on our website: http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1decisiongloss.pdf

Table of Contents

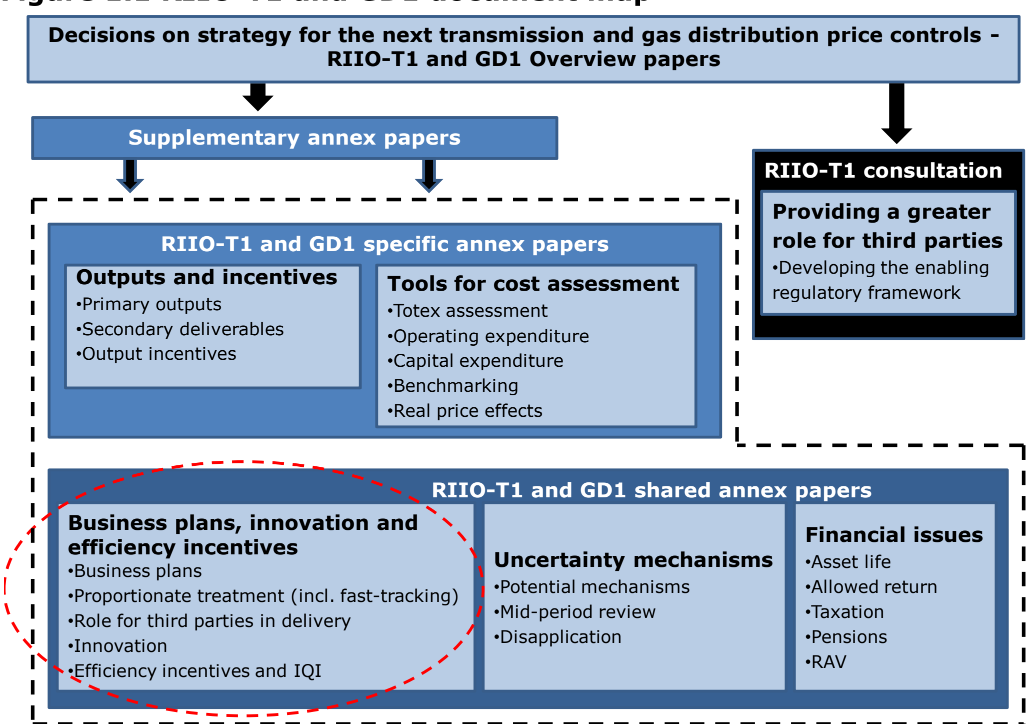
1. Introduction

1.1. The next transmission and gas distribution price controls, RIIO-T1 and GD1, will be the first to reflect the new RIIO model. The price controls will be set for an eight year period from 1 April 2013 to 31 March 2021. In December 2010, we consulted on our initial strategy for the two price control reviews.[1] The suite of documents included a supplementary annex, which set out our proposed approach on business plans and their assessment, proportionate treatment, innovation, efficiency incentives and a potential role for third parties in delivery.

1.2. Following consideration of responses received to the initial strategy consultation, we have published a suite of documents setting out our RIIO-T1 and GD1 decisions.

1.3. Figure 1.1 provides a map of the RIIO-T1 and GD1 documents published as part of the suite of decision documents. We have also published a consultation setting out our early thinking on how we will provide a greater role for third parties in electricity transmission.

Figure 1.1 RIIO-T1 and GD1 document map*



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

[1] Consultation on strategy for the next transmission price control - RIIO-T1 Overview paper, Ref 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 Ref 160/10
http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/RIIOGD1%20overview.pdf

1.4. This supplementary annex is part of the suite of decision documents. It considers a number of aspects of the RIIO-T1 and GD1 price controls including:

- the form and structure of the price control (Chapter 2)
- business plans (further guidance and our assessment) (Chapter 3)
- proportionate treatment, including fast-tracking (Chapter 4)
- key elements of the design of the innovation stimulus and other steps we are taking to promote innovation (Chapter 5)
- applying the IQI in incentivising efficiency (Chapter 6).

1.5. This document complements the RIIO-T1 and GD1 overview papers and is aimed at stakeholders that are seeking a detailed understanding of our decisions in the areas outlined above. Stakeholders wanting a more accessible overview should refer to the RIIO-T1 and GD1 overview papers.[2]

1.6. Table 1.1 sets out the major decisions discussed in this document.

Table 1.1 Decisions

Policy Area	**Decision**
Scope of control	Confirm December scope plus continued need for flexibility and relationship to other work eg on sub-deducts.
Reprofiling of revenues	Set each year's revenue at the start of control. Case for reprofiling under limited circumstances and uncertainty mechanism. (See 'Supplementary Annex - Uncertainty mechanisms).
Business plan guidance	Updated for policy development and changes in context but consistent with previous guidance.
Business plan guidance	Strategy decision document locks down a number of elements of the regulatory

2 Decision on strategy for the next transmission price control - RIIO-T1 http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1decision.pdf and decision on strategy for the next gas distribution price control - RIIO-GD1 http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/GD1decision.pdf

Policy Area	**Decision**
Departures from our policy	framework at this stage. However, companies may make a case for different treatment eg company specific outputs. We are looking to companies to propose a package of measures to ensure their plans are financeable including a proposed cost of equity, transitional arrangements where needed, the level of notional gearing and the level of equity injections.
Proportionate treatment	We will consult on the quality of all business plans in October 2011.
Initial sweep	We will seek to balance appropriately the emphasis that we place on past performance and business plans based on the quality of the information that we receive. This recognises the likely lesser role for past performance at these first reviews.
Fast-tracking	Retained to encourage high quality plans in July 2011.
NIC (scope)	Low carbon/environmental objectives.
NIC (amounts)	Elec transmission £30m p.a. (total £240m). Gas transmission and Distribution £20M p.a. (total £160m).
NIC (profile)	Flat in real terms.
NIC (funding mechanism)	Fast money.

Policy Area	Decision
NIC (Project Partial Funding)	Maximum 90% project funding from NIC.
Innovation allowance	Between 0.5% and 1% of allowed revenue, dependant on quality of innovation strategy.
Revenue Adjustment Mechanism	Annual opportunity to justify rollout of proven innovative solutions where they conform to set criteria, and are accompanied by pre-agreed deliverables.
Efficiency incentive rates	40-50% (Transmission) 50-60% (Distribution).
IQI application	Generally to first business plan. For non-fast-tracked companies we will incorporate adjustments to companies' first business plan forecasts in our IQI assessment where the company can provide a reasonable justification for such changes. Chance of financial upside.

1.7. We also provide additional material in the Appendices to the document.

- Appendix 1 provides more detail on responses received to the questions we consulted upon in December 2010.
- Appendix 2 provides our conclusions on the innovation impact assessment that we consulted on in December 2010.

2. Form and structure of price control

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

Overview of decision

2.1. In the December document, and in line with the RIIO model, we proposed to adopt a building block approach to the price control. We set out that the price control would be set for an eight year period and include provisions to allow for adjustments to revenue allowances to reflect changes in the Retail Prices Index (RPI) as well as performance against incentives. In this chapter, we confirm our December proposals on the form and structure of the price control and include details of how we propose to address the comments made in this area.

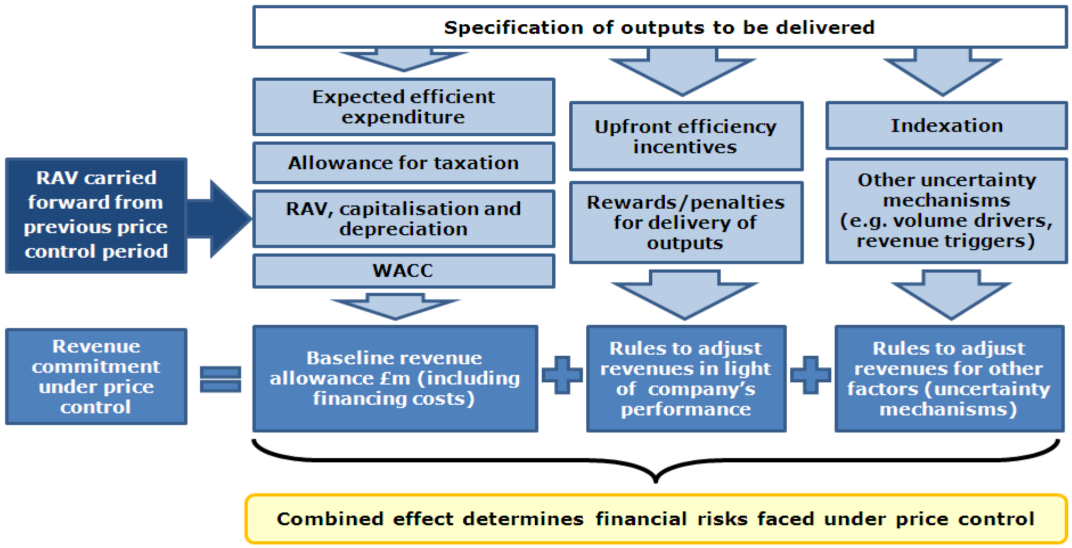
Summary of consultation proposals

2.2. In December, we proposed that the RIIO-T1 and GD1 packages would set the outputs that the network companies needed to deliver and the revenues they would be able to collect from consumers for delivering these. We confirmed in December that we would set the price controls for an eight year period, with revenue adjusted annually for inflation using RPI. We consulted on the precise approach to the RPI adjustment in the 'Supplementary Annex - Uncertainty mechanisms' (December 2010).[3] We also proposed to include provisions to allow for other adjustments to revenues in relation to output incentives, efficiency incentives and uncertainty mechanisms.

2.3. We confirmed in December that we intended to use the 'building block' approach to set revenues as illustrated in Figure 2.1 below.

[3] Consultation on strategy for the next transmission price control - RIIO-T1 and the next gas distribution price control - RIIO-GD1 - supplementary annex on uncertainty mechanisms. This is available on our website at http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/T1%20and%20GD1%20uncert.pdf

Figure 2.1 Price control building blocks



2.4. In December, we put forward proposals for the scope of the RIIO-T1 and GD1 controls, including the definition of excluded services. We also considered interactions with the Liquefied Natural Gas (LNG) price control[4] (for RIIO-T1), the treatment of sub-deduct networks and metering of last resort (for RIIO-GD1).

2.5. We set out our intention to set a revenue allowance for each year of the control in line with our assessment of each year's revenue requirements. We discussed the limited circumstances where we would consider altering this revenue profile.

Summary of responses

2.6. Those that responded on this chapter generally supported our proposals on the form and scope of the control. However, they raised some issues to which we should have regard.

- There should be some flexibility around the scope of the price control given the length of the price control and the potential for changing circumstances. For example, one GDN argued that the licence obligation for GDNs to be meter provider of last resort should be reviewed and potentially removed.
- We should consider linkages with the review of metering arrangements (ROMA)[5] and smart metering developments.
- We need to consider further the criteria for possible re-profiling and the discount rate that we use if we re-profile revenues.

[4] Details of our LNG price control can be found on our website at http://www.ofgem.gov.uk/Networks/Trans/GasTransPolicy/LNGPriceControl/Pages/LNGPriceControl.aspx.
[5] We launched the ROMA review by Open Letter on 1 April 2010. This can be found on the Ofgem website: http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=1&refer=MARKETS/RETMKTS/METRNG/COMP.

Our decision

2.7. In general, we consider that the form and structure of the control we consulted on in December remains valid. We respond to respondents' comments below.

Flexibility of scope

2.8. We note the potential for the circumstances surrounding the price control to change over time and agree that we may need to consider small amendments to its scope. We do not intend to consider changes to the licence obligation for gas distribution networks to be meter provider of last resort within the price control. This is a separate issue, subject to a separate metering price control arrangement. Throughout this price control review, we will consider other aspects of the interrelationship with the ROMA and smart metering developments.

Profiling of revenues

2.9. Consistent with the RIIO model, we remain committed to our proposed approach of determining revenues for each year of the control informed by our assessment of the cost requirements underlying network company business plans. However, recognising the impact on charge volatility, we will consider profiling and smoothing mechanisms together when the business plans are submitted. At this time we will have a better understanding of the volatility of cost requirements and the impact that other mechanisms (such as incentives) could have on allowed revenue. We will consider again at that stage the helpful suggestions made in terms of criteria to apply when considering possible changes to the profiling of revenue. This particularly concerns the need to have regard to the implications of changes to the volatility of charges for end users and the impact on network company finances. As set out in our 'Supplementary Annex - Uncertainty mechanisms' we may consider a number of mechanisms to limit volatility but will only consider whether this is necessary following submission of the business plans.

2.10. If reprofiling is considered, we also confirm the discount rate that would be used in reprofiling should remain at the level of the weighted average cost of capital (WACC).

Sub-deduct arrangements

2.11. In December, we stated that we intended to consult separately on the specific issue of who owns and is responsible for maintaining sub-deduct networks. We published an Open Letter Consultation[6] on Sub-Deduct Arrangements on 18 March

[6] Open letter consultation on responsibility for Uniform Network Code Sub-Deduct Arrangements, Ofgem, 18 March 2011. This is available on our website at: http://www.ofgem.gov.uk/Networks/GasDistr/GasDistrPol/Documents1/OpenLetterSubDeductv1%2018.pdf

2011. This consultation closes on 6 May 2011. After we have reviewed the responses to this consultation, we intend to publish a letter to set out our decision on how we will address this issue including, if applicable, arrangements for amending the regulated revenues of gas transporters. We anticipate this decision letter will be published by the end of June 2011.

2.12. In the consultation letter we stated that if National Grid Gas (NGG) or the GDNs assume responsibility for sub-deduct arrangements going forward, they may incur additional costs in assessing the risks and liabilities presented by these networks that may have accrued over the years of undefined responsibility. They may wish to commence an efficient programme of mitigation measures to reduce those risks. Subject to consideration of responses to the consultation, we do not consider that commencement of such risk mitigation measures should be delayed until the implementation of the RIIO-GD1 price control, due to take effect in April 2013.

2.13. Therefore, once a decision has been taken and if the additional costs of responsibility are material, in the light of total allowed revenues to the party concerned, we would consider applications for additional allowed revenues under the most recent gas distribution price control review (GDPCR1). This includes efficiently incurred risk mitigation measures on sub-deduct arrangements. We may consider a logging up mechanism for this purpose.

2.14. We recognise that any risk mitigation programme would likely extend into the RIIO-GD1 price control period. We also recognise that there is unlikely to be any certainty about the cost impacts ahead of July 2011. Instead, this will be a parallel process and will run beyond the submission of the July business plans.

Other issues

2.15. Two other issues are:

- Liquefied Natural Gas (LNG) price control: We published our final conclusions with respect to the price control for National Grid's LNG facilities on 21 February 2011. This determination is set to apply until 31 March 2013. We propose to determine long-term revenue allowances in relation to these facilities as part of RIIO-T1 and these will take effect when the current price control elapses.
- Scottish Independent Undertakings (SIUs)[7]: We confirm, as set out in our December document that the funding arrangements for the SIUs remain in scope with our expectation that Scotia will include these costs in their business plan. We understand that the Department for Energy and Climate Change (DECC) will be consulting on the future options around these subsidy arrangements later this year and will have regard to any decisions in this area.

[7] SIUs are the five remote Scottish towns to which Scotia Gas Networks (SGN) transports gas by road from the Glenmavis tanker loading facility.

3. Business plans

Chapter Summary
This chapter provides an overview of the proposals that we put forward in our initial strategy consultation documents on business plans. It summarises the responses received to the initial strategy consultation and sets out our decision.

Overview

3.1. Under the RIIO approach, the business plan that each network company will submit in July 2011 is hugely important. It is an opportunity for companies to show how they have responded to the key objectives of RIIO. We will only be able to conclude a company's settlement when it has provided us with a robust business plan. The quality of the July plan, the robustness of the data within it, and how well it is justified, will influence the degree of regulatory scrutiny we apply during the review.

3.2. Following review, we intend to publish our initial view on all business plans in October. At the same time, we will publish key aspects of the companies' business plans in advance of the fuller publication of these plans.

3.3. We have sought to provide guidance on what a well-justified business plan should look like throughout the development of RIIO-T1 and GD1. We included an annex on this issue in our initial open letter consultation in July 2010. In addition, we set out 15 criteria for assessing the business plans in December and made reference to the earlier guidance we had published, stating that this still remained relevant. We sought stakeholder views on the guidance provided to date and whether there was also more we could do to help companies understand what is required of them.

3.4. In this chapter, we confirm the business plan guidance for network companies. This is a slightly updated version of that provided in the equivalent December 2010 supplementary annex on the business plan.

Summary of consultation proposals

3.5. In December, we emphasised that the draft business plan guidance we published alongside the RIIO-T1 and GD1 open letters in July remained applicable. We stated that network companies would need to justify their proposed strategy for output delivery against a thorough understanding of the long-term trends and uncertainties they face. We also set out our expectation that network companies would be proactive in contributing to carbon reduction targets, engage effectively with their stakeholders, demonstrate consideration of the role of innovation and present a holistic view of the regulatory settlement the company considers appropriate.

3.6. We proposed to use a four stage approach to assess business plans and included our initial thinking on the assessment criteria we would use. The 15 points were split into three categories: (1) the approach that network companies had taken to their business plan; (2) the strategy they had adopted; and (3) the way that this strategy had been reflected in the plan.

3.7. We proposed that companies should provide data for the remainder of the current price control period and the full eight years of the upcoming price control, as well as a further five years of longer-term data to put the forecasts into context.

Summary of consultation responses

3.8. A number of respondents welcomed the level of guidance we had provided on the completion of network company business plans, although some parties noted that we should exercise flexibility in applying the guidance. Further clarity was requested on the link between uncertainty mechanisms and business plan forecasts and the potential for network companies to propose new outputs or incentives. There were also requests for early sight of proposed data templates. Others welcomed our decision not to provide a template for the business plan itself.

3.9. The majority of respondents expressed support for the assessment criteria that we presented and suggested it was sufficiently robust to allow network companies to develop their business plans. Some respondents requested clarity on how we would apply these criteria and the weighting that we intended to use. Others emphasised that we should focus on the absolute rather than relative quality of the business plans. Two respondents set out suggestions to amend the criteria and both highlighted concerns with the terminology of 'criteria 2: Acceptance of our policies'.

3.10. Respondents expressed support for the proposed use of ten years of data, forecasting out to 2020-21, but highlighted concerns about the provision of a further five years worth of data given uncertainty over this period. They suggested that this data should be presented in summary form as an indication of future trends.

3.11. Some respondents were supportive of our proposed approach to the initial sweep and highlighted a range of indicators that could inform an assessment of past performance. However, a number also noted the limited evidence that would be available or robust as a reflection of past performance on output delivery. There was support for our proposal to place greater weight on the quality of the business plan rather than historic performance in the RIIO-T1/GD1 initial sweeps.

Our decision

3.12. We welcome stakeholder support on the level of business plan guidance we provided. We present the final guidance later in this chapter. This is broadly consistent with what we published in December and, indeed, with our July open letter.

Justifying departures

3.13. To provide clarity over the level of justification required in a well-justified business plan, we have considered some of the questions that any such plan should answer. In this respect, the revised guidance provides some indicative questions that network companies should consider for each part of the business plan assessment criteria. The questions are indicative and might not be appropriate in all circumstances. We hope, however, that they will assist companies in developing their plans.

3.14. While some respondents wanted greater flexibility, others wanted more clarity about how much flexibility there would be in preparing the business plan. We have amended one of the criteria definitions so that it explicitly enables justifications for departure from our set policy. However, the decisions set out in this Strategy Decision document are important and form an essential part of the context for a well-justified business plan.

3.15. In particular, we expect to have common output definitions and incentive mechanisms for all GDNs and for all TOs for generic industry issues. Our decisions on the generic set of output and incentive mechanisms are contained in the 'Supplementary Annexes - Outputs and incentives'. We would only expect to agree to new or modified outputs and incentive mechanisms where the companies' proposals addressed company specific issues. In RIIO-T1, recognising the differences between the companies there may be greater flexibility in defining this scope for departures. The quality of justification will be key.

3.16. This general principle does not prevent companies, who wish to propose changes to outputs/incentives in their July business plans, putting forward rigorous justification.

Policy updates

3.17. Since December, there have been developments on policies within RIIO-T1 and GD1 and the context within which the price controls are being set has progressed. This has led us to make small changes to the business plan guidance, particularly related to:

- the alignment of incentives between the system operator (SO) and the transmission owner (TO)
- consideration of impacts of infrastructure upon visual amenity
- interaction with European and offshore network development.

3.18. As set out in the supporting paper on RIIO-T1 outputs and incentives, we continue to seek to align the SO and TO incentives as far as possible. We have set out proposals for work to strengthen the SO incentives and set an output on the TO to play its role. In appropriate cases this approach will allow trading between SO and TO where joint actions can deliver the best outcome ie providing funding for the SO to use to provide incentives to the TO to deliver their part of an overall favourable outcome.

3.19. In light of this output requirement on TOs, they will need to include, within their well-justified business plans, a clear description of the approach they propose to follow in working with the SO to deliver the best joint outcome for network availability. We would expect the TOs to identify strategies building on their previous experiences and, where applicable, highlight how they could have better identified potential opportunities in the past. We recognise that there may be some informational issues but expect the TOs to consider different approaches to resolve these, or to determine ways of delivering despite these.

3.20. As set out in chapter 6 of the 'Supplementary Annex - Outputs and incentives', we are asking each TO to prepare, as part of its business plan, a network availability policy. The network availability policy will clarify what the SO, and other stakeholders, can expect from the TO insofar as its actions affect the availability of the transmission network. For instance, it should set out how the TO will plan and manage outages and deal with risks of over-runs, including details on working practices. Each TO should explain why its proposed policy is in consumers' interests.

3.21. During the price control period, the network availability policy will be taken as a primary output, within the network reliability and availability category. We will have the ability to impose financial penalties in the event of a TO not complying with its network availability policy. There may also be opportunities for a TO to benefit financially from performance beyond that which is required under its network availability policy, where this is in the interests of consumers.

3.22. We have also made amendments to the guidance to make sure that network companies consider the impact of their business plans on visual amenity as well as the likely success of the planning process. These are areas of trade off, and a well-justified business plan should consider how to balance the competing priorities, reflecting the priorities of their stakeholders.

3.23. In addition, we have amended the guidance to be explicit that a well-justified business plan should consider any issues of interaction with offshore network, interconnector or other cross border or EU policy developments.

Data templates

3.24. As a complement to the guidance on the business plan, we have produced data templates for supporting data, which network companies will need to complete. We have worked with the network companies in developing the tables. The tables should help to ensure consistency in the submission of data and facilitate the process of cost assessment whilst avoiding prescribing the form that information should take. Where the business plans refer to data in the data tables, we will expect the two to be consistent. However, we do not expect the narrative to include references to everything in the detailed data tables and each company will need to decide what to highlight in the plan. Companies will need to consider a number of issues when doing this, including the materiality of the issue.

3.25. We are retaining our proposed approach to require network companies to provide 15 years of forecast data covering the remainder of the current price control, the period of the coming price control and five years of future data. We recognise that longer-term forecasts will be characterised by uncertainty and therefore agree that this data should be used as an indication of expected future trends. This data will be helpful, however, in understanding the longer-term scenarios companies have considered in developing their plans for the RIIO-T1 and GD1 price control periods. We expect that companies will update this longer-term data as more information becomes available during the price control period.

Updated business plan guidance

Introduction

3.26. In December, we consulted on criteria for assessing the quality of business plans. This section presents a slightly updated version of these criteria reflecting the changes discussed in this chapter.

Updated criteria for assessment

Criteria 1 – Key content

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

- clear explanation of the outputs the company is expecting to deliver over the period
- 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 benchmarking approaches to test the efficiency of its plan
- evidence of considering innovation (where likely to be consistent with long run efficiency)
- demonstration of an understanding of the context, including EU, cross-border and offshore network developments as appropriate
- for major projects (as defined in the Planning Act 2008), full justification of costs, including any mitigation costs based on detailed assessment of technical, economic, social and environmental impacts and stakeholder engagement (eg consultation responses) in line with the Planning Act requirements (RIIO-T1 only)

- justification of financeability parameters, with a link to underlying business plan.

3.28. These are generally applicable to both reviews although some may be more material in one or the other. If any of the above is missing from the plan (except for where the omitted point is predominantly specific to the other review) then we are unlikely to consider that it is well-justified. Our initial assessment of whether network companies have included this key content in their business plans will also give us an indication of how much scrutiny we will have to apply in our assessment, ie how unsure we are that the network company's proposed approach represents long-term efficient delivery.

Questions the TOs/GDNs might need to consider when developing their plans

- ➔ Are the proposed output departures the right ones? For example, is this really a company specific output (GD1)? Are there any additional outputs we think we should deliver during the coming price control?
- ➔ What costs would be incurred in the delivery of these primary outputs and secondary deliverables? How can we ensure that we make a clear link between the outputs and the costs incurred?
- ➔ What level of delivery for this output category are my stakeholders willing to pay for?
- ➔ Are there different ways of delivering these outputs that would incur different costs?

Criteria 2 – Reflect our policies (with any departures fully justified)

3.29. Our March decision document sets out policy decisions in a number of areas. We expect a well-justified business plan to reflect these. The guidance that we have provided includes reference to 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 assumption.

3.30. We also expect companies' plans to be consistent with the RIIO policies on outputs. The primary outputs we set out should all be included in the plan, and we expect network companies to provide a clear rationale for the level of delivery that they are targeting. Companies are able to propose additional output, for example company specific outputs in GD1 as well as incentives that take a different form to that set out in the policy guidance that we have issued. Where any company chooses to do so, they need to provide robust justification for these additional outputs and any proposed differences in the incentive mechanisms.

3.31. In other parts of the plan, 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.

3.32. We expect companies to compile their business plans using our financial policies and methodologies. They should:

- complete the templates accurately and completely without unapproved alteration
- complete the financial model without unapproved structural adjustment
- ensure consistency between financial statements and the operating expenditure (opex) and capital expenditure (capex) projections
- comply with the financial policies, except where we have said network companies can make their own proposals
- justify the level of capitalisation used, cost of equity and alternative cost of debt indexation (if applicable)
- justify financing plan mix in terms of new debt, level of new equity, transitional arrangements and retained earnings
- demonstrate financeability of business plan
- show the impact of the proposals on bills.

Questions the TOs/GDNs might need to consider when developing their plans

- ➔ Have we identified each part of the policy guidance?
- ➔ Have we interpreted the policy guidance correctly?
- ➔ Where we disagree, could this be the result of misinterpretation?
- ➔ Where we disagree, is this with the spirit as well as the precise reading of the guidance?
- ➔ Where we disagree, is this with all or a part of the policy guidance. In the latter case, can we reflect the rest of the guidance?
- ➔ Where we disagree, why have we come to this view? Have we tested the view? Have we talked to stakeholders about the issue?
- ➔ Where we disagree, have we fully justified the proposed departure? Have we shown why this is appropriate rather than other departures? What impact do we think this departure will have? What linked areas of policy guidance might be affected?

Criteria 3 – Structure and proportionality

3.33. We do not intend to provide a template for the business plan narrative as we consider it is a matter for the companies to determine how best to structure their information. However, we will assess whether the information is presented in a clear, logical and concise manner that clearly indicates where the relevant information is to be found. 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.

3.34. As part of this we expect the companies to provide a cover sheet describing clearly how the plan is structured and where to find key features.

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

3.36. The plans should be on an end-to-end basis covering initial stakeholder engagement as well as required revenue and should include a means of understanding the indicative charges that would be levied on customers.

Questions the TOs/GDNs might need to consider when developing their plans

- ➔ Who are the readers of our business plans likely to be? How do we ensure that the business plan is accessible to all interested parties? Is there a need to provide different versions for different stakeholder groups?
- ➔ Have we checked that the final plan is presented clearly, as concisely as possible and logically? Is there anything we can do to improve the plan's readability?

Strategy

Criteria 4 – Efficiency of costs

3.37. 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 they are proposing, that they have considered alternative options and that the costs of delivery are appropriate. This will include taking into account the longer-term development of their networks.

3.38. For major projects, companies will need to demonstrate that they have considered and consulted on all reasonable alternative options (eg different routes, undergrounding, subsea cables). They will also need to demonstrate that mitigation costs are justified in terms of their statutory duties to maintain an efficient network and that they have regard to, amongst other things, matters related to visual amenity.

3.39. We expect companies to use a range of tools in demonstrating the efficiency of their forecast 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.

3.40. We will consider efficiency through our toolkit approach to cost assessment, which is discussed in detail in the '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 high relative to other companies and past performance, then it will be for them to demonstrate long-term efficiency.

Questions the TOs/GDNs might need to consider when developing their plans

- ➔ Have we adequately considered the various options available to ensure efficient delivery? Have we sufficiently considered the scope for innovation and the potential to work with others or outsource certain areas of delivery?
- ➔ Does our plan represent efficiency over both the short and longer term? How have we made sure that this is the case?
- ➔ How can we demonstrate our consideration of alternative options?
- ➔ Have we used a range of tools to examine efficiency? Are there any other tools/approaches that we should/could use to test our plan? What deficiencies might there be in the testing of our plan? How can we overcome these? Has our testing being proportionate, ie have we given the necessary level of justification/detail to the most important parts of our plan?
- ➔ Have we tested the efficiency of our plan in a way that recognises the importance of delivering the customer focused comprehensive outputs on a sustainable basis?

Criteria 5 – Long-term context

3.41. The plan should be set within a long-term context. A well-justified plan will be one that provides information on the longer-term strategy for network development and delivery of long-term value for money. We expect companies to link this to their strategy for contributing to meeting the government's carbon and renewable targets. They will need to take into account the national need for new electricity networks, as set out in the energy National Policy Statements (NPSs) designated from time to time under the Planning Act 2008, and the National Development Priorities, as set out in the second National Planning Framework for Scotland.

3.42. 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 expenditure will imply for required investment and associated efficiency beyond the price control period. They will need to justify proposed expenditure for the eight year period in the context of the longer-term strategy.

3.43. We recognise that forecasts that extend over a timeframe beyond the upcoming price control period are likely to be subject to greater levels of uncertainty. In taking forward our business plan assessment, we will have regard to the relative accuracy of the longer-term data provided and seek to use this information to understand better the future trends that network companies expect to emerge and therefore the basis on which they have developed their business plans. The longer-term data should be presented in the form of scenarios and therefore should provide an indication of the various outcomes that could result and the actions that the network companies propose to take, both in the coming price control and further into the future, to address these changes. Where appropriate, network companies could include reference to the need to use uncertainty mechanisms in the event that one of their alternative scenarios were to emerge.

Questions the TOs/GDNs might need to consider when developing their plans

- ➔ How long is long-term for each aspect of our plan? Over this period, what progress will we need to have made toward the government targets on carbon abatement and renewable deployment? What scenarios are relevant to consider over this period?
- ➔ Have we considered the relationship between the longer-term data and current plans properly? What are the risks associated with this interpretation?
- ➔ What assumptions underpin our assessment of the long-term plan (for each area where we apply assumptions to justify our expenditure over the current time period)?

Criteria 6 – Reflect uncertainty

3.44. 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 will need to set out how they intend to manage uncertainty over the short to medium term. This includes, for example, keeping options open and trialling new ideas through innovation projects. As set out in criteria 5, companies may also wish to make reference to the potential need to utilise uncertainty mechanisms over the course of the price control.

Questions the TOs/GDNs might need to consider when developing their plans

- ➔ What are the main sources of uncertainty likely to be? What are the likely associated timings with this uncertainty? Are there any steps we could take to get greater clarity in this area, eg through stakeholder engagement or research? What impact could these uncertainties have on the delivery of outputs at an efficient cost? What measures could we implement to guard against possible negative impacts?
- ➔ Are there areas in which we could explore the potential for innovation and how could this help to reduce any uncertainties or their impact? What are the costs and risks associated with this innovation? Do these outweigh the risks that might result from uncertainty?
- ➔ Are there projects where we could retain flexibility until we have greater certainty about the most efficient way to proceed? Would this lead us to incur higher costs? Would these costs be greater than those associated with the potential uncertainty?
- ➔ Are there any uncertainties that it is not possible for us to manage internally? Are there mechanisms that could be included within the business plan to mitigate these? What would the rationale be for the inclusion of these mechanisms? How would they help to reduce the impact of these uncertainties?

Criteria 7 – Output delivery

3.45. The plan must demonstrate how network companies 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.

3.46. As part of their business plans the network companies are 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.

Questions the TOs/GDNs might need to consider when developing their plans

- ➔ What has our past performance been in terms of the delivery of outputs that we are required to delivery in RIIO-T1/GD1 and which we are also required to deliver in TPCR4? How could we improve our performance in the delivery of these outputs? What options are available to us? Are there any innovations that we could take forward to improve performance? Are there any third parties that we could work with in this area or outsource delivery to? What are the costs of the available options? What relative impact would they have on our performance?
- ➔ What new outputs do we need to deliver? What work do we need to carry out to understand better the most efficient way to deliver against these? Are there lessons that we could learn from the delivery of these outputs in other sectors/internationally?
- ➔ Do we have the capacity to deliver against the output levels required? What additional resources would we need to ensure the delivery of these outputs? Are there third parties we could contract with for the delivery of these outputs?

Criteria 8 – Effective engagement and understanding of stakeholder views

3.47. The companies should develop business plans reflecting their engagement with stakeholders. However, it will not be sufficient for companies simply 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 that they have effectively engaged with a wide range of stakeholders when formulating their plans.

Questions the TOs/GDNs might need to consider when developing their plans

- ➔ Who are the relevant stakeholder groups with whom I should engage? What are the best ways to facilitate effective engagement with these groups? Is there any preparatory work that I should do with these parties to ensure that they understand the issues?
- ➔ How do I best get stakeholder input? What are the available options to achieve these outcomes? Can I take a look at the experience of others in terms of

engagement with their stakeholders? Should I use different techniques for different groups of stakeholders?

- ➔ How can I effectively collate the views of stakeholders to ensure a clear understanding of the key views expressed?
- ➔ What is stakeholder feedback telling me about the level of a particular output that I should seek to deliver?
- ➔ What areas do I need to focus on to improve on customer satisfaction?
- ➔ Where stakeholders disagree, how can I resolve the diverse views they have expressed?
- ➔ What is my justification for the decisions that I have reached? Do I have a robust rationale for the comments that I have not accommodated?

Criteria 9 – Risk

3.48. 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. To some extent, this will be linked to the uncertainties that they face.

Questions the TOs/GDNs might need to consider when developing their plans

- ➔ What risks are there associated with the effective delivery of outputs? Are the risks greater for some outputs than others? What steps can I take to mitigate these risks?
- ➔ What risks are there associated with stakeholder engagement? Is it possible that parties may not engage effectively due to insufficient resources/understanding? Is there the potential that I might miss an important group of stakeholders who have key information on the demands that will be placed on the network? How can I guard against this?
- ➔ Have I adequately considered the impact that any new project could have? If it is innovative, have I fully assessed the costs and benefits that could result? Could I adopt an approach which would allow for elements of the project to be progressed without committing to the entire expenditure?
- ➔ Are there risks associated with the longer-term strategy I am proposing? Are there ways in which I can seek to mitigate these risks?
- ➔ What level of risk will I face over the course of the price control? How can I quantify this risk? What is my current financial structure? How would this financial structure stand up to anticipated risks throughout the price control? What would the form of the financial package need to be in light of this risk? What range of returns would be needed to attract sufficient reliable investment? What impact would changes in the financeability package have on my business? Is there a need for transitional arrangements to facilitate effective cash flow?

Criteria 10 – Reflecting best practice

3.49. 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. We will consider whether there is scope to make improvements in any areas.

Questions the TOs/GDNs might need to consider when developing their plans

- What previous guidance have Ofgem/government provided with respect to best practice on the development of networks and associated completion of business plans? What areas of our plan could this impact on? How could we address the issues identified?
- What international comparators are there that could provide relevant lessons on the best way to develop our network, particularly given levels of uncertainty? Do these provide lessons on things that we should do or avoid doing?
- Are there lessons that we could learn from other utilities? From other energy network companies? Are there innovations that have been progressed from which we could learn lessons?

Reflection of strategy in plan

Criteria 11 – Accurate, timely and full completion of business plan templates

3.50. Companies must complete all of the templates that we have provided in the March decision document (including the financial model) 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 is at the latest 31 July 2011. As this is a Sunday, this will mean that in general the submission will need to be made by Friday 29 July 2011.

3.51. Failure to provide any information required, without a reasoned justification, would mean that the business plans cannot be considered well-justified and this may make a company ineligible for fast-tracking. We recognise that in certain areas, where new outputs or cost categories are included, network companies may not have access to historical data in this format and we do not propose to penalise them for this. Network companies will have the opportunity to comment on the templates before they are required to complete them.

Questions the TOs/GDNs might need to consider when developing their plans

- What information do we need to complete each of the templates? Do we have this information available to us? What additional work do we need to do to attain this information? If we cannot obtain this information, what is the rationale for this? Does this represent an obstacle that we are unable to overcome?
- What assumptions have we used in each of the areas of the business plan? Are these assumptions reasonable? Are they aligned with Ofgem's expectations?

Criteria 12 – Quality of information on primary outputs

3.52. The plan should clearly identify how a company intends to deliver the primary outputs. We have set out the primary outputs that companies need to deliver in RIIO-T1 and GD1 in our March strategy decision document on Outputs and Incentives. Except where we prescribe specific outputs levels, we expect companies to propose a target level of delivery for each output in their business plans and to justify this with reference to stakeholder feedback, network performance and a consideration of efficiency. Where we have outlined output levels in the strategy decision document, we expect companies to provide justification if they consider an alternative level of outputs to be appropriate.

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

Questions the TOs/GDNs might need to consider when developing their plans

- ➔ What information should I provide on the scenarios against which I have considered the delivery of outputs? What assumptions have I used in compiling these scenarios and what sources of information have I taken into account?
- ➔ How can I demonstrate efficiency in my proposed approach to the delivery of outputs? What options have I considered? How have I objectively assessed these options? How have I compared these options against my past experiences of delivery? Have I considered a potential role for innovation? Have I considered alternative outsourcing options?
- ➔ Can I link my proposals to the views of my stakeholders?
- ➔ What information do I have to demonstrate my considerations in these areas? What is the best way to present this information? What additional information could I obtain to support better the case that I have put forward?
- ➔ What do I consider to be an appropriate level of delivery for each of the outputs? How can I demonstrate that this is an appropriate level of delivery in my business plan?

Criteria 13 – Quality of information on secondary outputs

3.54. As with primary outputs, we expect the companies to set out how they will employ secondary deliverables. For example, where they are proposing the need for expenditure to support the delivery of outputs in future periods or in support of proposed wider works. This should include reference to current levels of performance that they are delivering in this area 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.

Questions the TOs/GDNs might need to consider when developing their plans

- ➔ What will the energy market of future price control periods look like? What are the likely outputs that I will need to deliver in these future price controls?
- ➔ Could I deliver these outputs if I continued to invest in the same way? What additional investment might I need to take in advance of these price controls to ensure the delivery of outputs in future periods? When would I need to ensure the delivery of these intermediate outcomes? What would this mean for delivery in the coming period?
- ➔ How can I effectively present the case for the delivery of these outputs? What information should I provide? How can I demonstrate that I have considered a

range of options, the potential for innovation, the views expressed by stakeholders and the potential role that third parties could assume? What information would I need to support my case in this area?

Criteria 14 – Evidence

3.55. 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.

3.56. 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.

3.57. The key test for us will be the level of scrutiny we are required to apply to a network company's plan. We recognise that this is the first time companies have been required to develop business plans under the RIIO framework and therefore note that we may have to raise a number of points for companies to address.

Questions the TOs/GDNs might need to consider when developing their plans

- ➔ Have I provided sufficient evidence to support my proposed approach on primary outputs and secondary deliverables? On uncertainty, risk, innovation and engagement with my stakeholders? Are there additional sources of evidence that I could consider?
- ➔ Have I adequately considered the potential for outsourcing of deliverables? Are there certain deliverables that third parties would be better placed to deliver? How have I ensured that I have reached decisions on this objectively? Have I undertaken sufficient market testing, involving the right kinds of parties? How have I taken decisions about whether to deliver the output in-house or secure assistance from a third party contractor?

Criteria 15 – Linking forecasts to historical performance

3.58. 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 currently has high costs relative to its peers for a particular activity, it will need to demonstrate how it will address this inefficiency. If there is an underspend in the current period then we will expect them to put their forecasts in the context of that previous performance.

Questions the TOs/GDNs might need to consider when developing their plans

- ➔ What has our historical performance been like? What information do we have available to us to demonstrate this? What additional information might we need to provide to show an accurate picture of performance? How can we attain this information?

➔ How do we propose that our performance will change in the coming price control? What particular initiatives can this be linked to?

Other issues

3.59. We expect all companies to strive to produce a well-justified plan. However, we recognise that the possibility exists that none of the companies are able to submit a plan that attains well-justified status and hence is suitable for fast-tracking. Even in such a case, a plan might be of sufficient quality to merit lighter-touch scrutiny than other plans. In applying lighter-touch scrutiny, we would focus our scrutiny on the criteria that the business plans had not met based on our initial assessment.

3.60. 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 improved quality based on challenges made to the first plan.

3.61. 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.

3.62. Ultimately it will be for us to decide whether to accept the companies' proposals.

4. Proposed approach to proportionate assessment

Chapter Summary
This chapter provides an overview of the proposals that we put forward in our initial strategy consultation documents on proportionate treatment. It summarises the responses received to the initial strategy consultation and sets out our decision.

Overview

4.1. This chapter sets out how we will conduct the initial sweep assessment of business plans to determine the appropriate degree of scrutiny for each. In particular, it takes account of responses on the use of evidence of recent past performance. We then set out our proposed approach to proportionate treatment and fast-tracking.

4.2. Our approach to proportionate treatment of companies' business plans is intended to provide strong incentives on companies and ensure that our resources are focused in the areas where they are likely to deliver the most consumer benefits. Those companies that submit well-justified business plans could be subject to lower levels of regulatory scrutiny. Where network companies submit high quality business plans to us in July, which in the round deliver on the RIIO objectives, they could be fast-tracked and we would settle their price control a year in advance of other network companies. Those companies that submit well-justified business plans in most areas but fall short in some others will receive a lighter-touch scrutiny than companies whose plans are deficient more broadly.

Summary of consultation proposal

4.3. In December, we set out that under proportionate treatment the intensity and timescale of our assessment would be determined according to the quality of business plans submitted by network companies and their record for efficient output delivery. We anticipated this would encourage network companies to submit well-justified business plans to us in July this year. We also set out that network companies that demonstrated strong past performance in the delivery of outputs and submitted well-justified business plans of exceptional quality could qualify for fast-tracking. We emphasised that there would be a high hurdle for companies to qualify for fast-track status and that we would not fast-track any company in the event that none of the network companies demonstrated compliance with these requirements. We recognised that a plan that came close in July might still be capable of fast-tracking if improvements were made before the assessment was complete. We also explained that companies that could demonstrate compliance with most of the requirements would receive lighter-touch scrutiny than companies who submitted forecasts that fell short in a range of areas.

4.4. We noted stakeholder concerns that fast-tracked companies may be disadvantaged as compared with counterparts who followed the standard price control process. We did not consider this to be a likely outcome for a number of reasons. In particular, the form of the price control for fast-tracked companies would largely be aligned with the original business plan they had submitted. In addition, there would be a number of automatic mechanisms within the control to adjust to changing circumstances and network companies would be able to opt out of this treatment if they had concerns. Nonetheless, we proposed to include provisions, which would allow changes to the fast-track settlement to be made following the publication of final proposals for fast-track companies in February 2012 to address this concern. We also proposed to award an additional reward to fast-tracked GDNs reflecting the comparative approach used.

Summary of responses

4.5. The majority of respondents expressed support for the proportionate treatment process, welcoming the use of better regulation to allow us to focus our resources on areas most likely to deliver benefits for consumers and reduce administrative burden. One network company highlighted that it would be important for the regulatory burden to be demonstrably reduced for companies that provided well-justified plans.

4.6. Respondents expressed broad support for our proposed process on fast-tracking. Some respondents highlighted that the threshold for fast-tracking should not be set too high and that we need to ensure this is a realistic option. Two respondents noted the importance of ensuring that fast-tracked companies would not be worse off than if they had chosen not to be fast-tracked, while a further respondent set out that we would need to exercise caution in our decisions on fast-tracking.

4.7. Some respondents expressed concerns about the fast-tracking process. In particular, there were concerns that fast-tracking as part of the first RIIO price control may place unnecessary time pressures on the development of well-justified business plans at the expense of meaningful stakeholder engagement. One respondent raised a concern that the initial proposals for non-fast-tracked companies may be unduly influenced by the final proposals for fast-tracked networks.

4.8. Although a number of respondents recognised the potential benefits that could be delivered through the promise of an additional reward to fast-tracked companies, they also noted the potential difficulties of defining the financial reward in terms of consumer benefits delivered.

Our decision

4.9. We welcome the positive responses received with respect to our proposed approach to proportionate treatment. We anticipate that the approach could deliver significant benefits initially through strong incentives to network companies to produce well-justified business plans in July. Also thereafter, the approach should allow the best use of resources (ours, network companies' and stakeholders'). We will publish the companies' plans in August 2011, subject to any limitations regarding commercial confidentiality.

4.10. We will consult on our initial assessment of **all** plans in October 2011, not just those who we think might be appropriate to fast-track. In that document we will set out our initial views on each company's plan and explain the level of scrutiny we intend to apply to the different areas of these plans. This will provide a strong reputational incentive for the companies to submit the best plan possible in July. As far as possible the plans will be published to provide transparency to third parties.

4.11. We note the concerns that have been raised about the short period available for companies to prepare their business plans for July 2011. We consider we gave companies clear notice in July last year of the timetable for submitting their well-justified business plans, what we expected to see in those plans and that they would need to engage closely with stakeholders in preparing their plans. We have decided to keep to the price control timetable set out in December, which allows us to fast-track a company if its July 2011 business plan is of sufficient quality. We consider fast-tracking to be a fundamental part of the RIIO model, which will provide important incentives to companies to develop well-justified business plans. Early access to high quality information will allow us to perform a strategic assessment of each company’s plans and determine where we need to focus our analysis during the review, allowing us to run a smarter price control review process.

4.12. We agree we need to ensure we understand fully the quality of a business plan before determining what degree of scrutiny should be applied or, where appropriate, whether the company is eligible for fast-track status. We anticipate that the range of tools we have available to us will facilitate this process. But we will exercise caution in our approach if there is any doubt about the quality of a business plan.

4.13. As this is the first time we are applying RIIO, we recognise the data limitations network companies may face in demonstrating past performance in the delivery of new outputs. We will therefore seek to balance appropriately the emphasis that we place on past performance and business plans based on the quality of the information that we receive.

4.14. We note and agree with the comments made that it is important that we assess business plans based on their absolute, rather than relative, quality. We do not intend to attach weightings to the criteria used to assess network company business plans. The RIIO model represents a package of measures designed to deliver certain high-level outcomes. To this end, we will consider business plans submitted by network companies as a package, which is intended to demonstrate compliance with the proposed approach set out under RIIO-T1/GD1. For a company's business plan to be considered well-justified, we would need to be assured that its approach in all of the areas included in the assessment criteria was of a high quality.

4.15. There will be a high hurdle for any company to receive lighter-touch scrutiny and an even higher hurdle for companies to be fast-tracked. The Authority's statutory objectives in protecting customer interests means that we will not fast-track a company if we do not think the plan, in the round, meets the RIIO objectives. Equally, we will not apply lighter-touch scrutiny unless we are satisfied that certain elements of the plan already meet, or are close to meeting, the RIIO objectives and approving them would be in accordance with the Authority's statutory duties. This is not about fast-tracking the best company or applying a light-touch to the two or three companies which present the best business plans. Our treatment of companies' plans will depend on their quality against the criteria we have set out. This means that potentially all companies could be fast-tracked and/or receive lighter-touch scrutiny.

4.16. Other details on the implementation of fast-tracking remain as in our December document. This includes in RIIO-GD1, the 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.

5. Innovation

Chapter Summary
This chapter sets our position on innovation within the RIIO framework. We describe how a combination of ex ante funding against the company business plans, the inherent incentives of the RIIO framework and a package of innovation stimulus measures will promote innovation by network companies and third parties. This chapter should be read in conjunction with the impact assessment presented in Appendix 2.

Overview

5.1. The RIIO framework specifically recognises the significant challenges faced by Britain's gas and electricity industries. Network companies need to facilitate the move to a low carbon economy while maintaining safe, secure and reliable energy supplies at long-term value for money to consumers. Gas and electricity networks will need to be smarter to integrate more renewable and intermittent sources and to encourage customers to manage their demand. To achieve this, network companies will need to innovate at an unprecedented rate.

5.2. Many elements of RIIO will encourage innovation. The focus on outputs (rather than inputs) gives companies the freedom and strong incentives to introduce new techniques to improve efficient output delivery. The longer-term, incentive-based price control will give companies greater certainty around rewards they could earn from successful innovation. It will also provide them with a better opportunity to obtain a pay back for innovative solutions within the price control period, and an ability to obtain ex ante funding for solutions with a pay back beyond this period. We expect network companies to consider the opportunity to apply innovative approaches when formulating their business plans - and we have set out guidance on this later in this chapter.

5.3. However, we recognise that research, development, trials and demonstration projects - the earlier stages of the innovation cycle - are speculative in nature and yield uncertain commercial returns, even within the new framework we have created. Network company shareholders may not be willing to put significant funds at risk for these activities and this could have a significant dampening impact on innovation at this crucial time. We are therefore establishing a time-limited package of funding mechanisms specifically to address this concern. These measures are designed to encourage the step change in innovation we consider is necessary in the energy networks if they are to meet environmental objectives. They are designed to ensure that customers' money is spent addressing the key issues associated with the environmental role the energy networks must play and that learning is disseminated widely. This learning should benefit customers by improving the companies' ability to deliver environmental outputs efficiently and effectively.

5.4. In this document we focus on elements of the innovation stimulus package which influence network companies' business planning for the RIIO-T1 and GD1 price controls. A parallel work stream is addressing the remaining issues around the design of the stimulus package.

5.5. The three elements comprising the innovation stimulus package are summarised below and are explained in more detail in the remainder of the chapter.

5.6. The Network Innovation Competition (NIC – which was referred to in previous documents as the innovation stimulus):

- an annual competition for innovation funding
- open to network operators and appropriately licensed non-network companies[8]
- funded by monies raised by the network companies through their network charges and transferred to the implementing licensees (including third parties)
- aimed at larger innovation projects with potential low carbon and environmental benefits, which will generate learning that, if successful, can be rolled out to benefit GB customers[9]
- provides significantly leveraged benefits to customers and therefore projects are funded by all customers since all will benefit
- funds research and development through to demonstration and trialling
- funds all types of innovative solutions: technological, operational, commercial and/or contractual
- there is a separate NIC for gas and electricity, with a maximum of £30m per year for electricity transmission and a maximum of £20m per year for gas distribution and transmission[10]
- funding is provided up front, up to a maximum of 90 per cent of project costs
- time limited – it will endure until we judge that the other incentives within RIIO are encouraging sufficient innovation.

5.7. The Innovation Allowance:

- is a limited allocation of innovation funding direct to each company
- it is capped at 0.5-1% of allowed revenue
- the level of cap is dependent on the quality of the justification set out in the company's innovation strategy
- companies will be able to pass through up to 90 per cent of innovation expenditure.

5.8. The Revenue Adjustment Mechanism enables companies to apply for additional funding within the price control period for the rollout of initiatives with demonstrable and cost effective low-carbon or environmental benefits. We will consider providing funding only where the company can demonstrate that it is not in the interests of consumers that the rollout should wait until the next price control period, that there are material additional costs or other barriers to the company rolling out the initiative absent additional funding, and where the company commits to delivering an agreed set of outputs that consumers value in return for the funding.

[8] We consulted on the extent of third party access to NIC funding in an Open Letter published on 21 January 2011. We will set out further views in a forthcoming decision on this consultation. http://www.ofgem.gov.uk/Networks/nic/Documents1/Open%20letter%20consultation%20on%20non-network%20company%20access%20to%20innovation%20stimulus.pdf
[9] It should be noted that an unsuccessful project can provide useful learning and therefore benefits, such as avoiding other companies wasting money on that piece of equipment or initiative.
[10] Each year the maximum amount will be inflated by RPI growth to maintain a flat profile in real terms.

Justifying innovation in the well-justified business plans

5.9. As indicated in the business plan guidance provided in Chapter 3, as part of their business planning process we expect companies to demonstrate that they have considered the use of innovative technologies, operating techniques, charging arrangements and commercial arrangements.

5.10. Companies can apply for ex ante funding for innovative approaches or solutions in their business plan where they have the information required to justify the project and can present a proven business case. Companies can justify a plan which includes spending more money on an innovative approach - but only if:

- it is better at delivering the outputs set out in this decision (or a company specific output)
- it provides more flexibility for the company to respond to the range of scenarios it has identified, or
- it is cost justified over a period longer than the price control.

5.11. Expenditure on research, development, trials and demonstration projects are essential stages in the innovation cycle. However, as these activities are exploratory in nature, it will not be possible for companies to justify expenditure on these activities with reference to the outputs defined in RIIO. Therefore these should not be included in the business plans. We have set out the mechanisms in place to fund these other innovation stages below.

5.12. The business plan justifications for the application of innovative approaches should include an explanation of outputs associated with the solution (which could be technical, operational, commercial or contractual). Any justification for funding over and above the costs associated with business as usual solutions will need to include sufficient evidence of expected costs, benefits and risks. Furthermore, these justifications should take into account any remaining uncertainty over outcomes. The business plan should be consistent and transparent and allow for efficient assessment and benchmarking of forecast and historical costs.

5.13. Generally, where innovative solutions have been included in a business plan they will be included in benchmarking assessments. We may consider excluding innovation from benchmarking assessments for solutions, which increase costs within the price control period, but do not correspondingly increase outputs within that period. We note that the inclusion of innovation within a business plan does not guarantee it will be funded - Ofgem will assess the proposal on the merits of the justification.

Network Innovation Competition

5.14. In our October 2010 open letter[11] and in the December RIIO strategy consultation documents, we consulted on the introduction of an innovation stimulus mechanism (now named the NIC). We explained that the mechanism seeks to encourage innovation which is clearly justified by wider environmental benefits[12] to current or future customers. This also requires there to be no proven business case for the network company and where the innovation risk warrants a limited trial, research, development or demonstration project to demonstrate its effectiveness.

Scope

5.15. We consulted on two options for the scope of the NIC. First, a narrow scope for projects that generate learning which facilitates a low carbon energy sector. Second, a wider scope to include learning that assists delivery of long-term value for customers' money. We recognised that the scale, nature and impact of the low carbon challenge is less apparent and more uncertain for gas than for electricity. We therefore asked whether the scope of the NIC should differ between gas and electricity.

5.16. Some respondents felt the electricity NIC should focus on low carbon innovation. Generally stakeholders recognised that challenges facing the gas and electricity sectors differ and some therefore felt the NIC scope should be wider in gas. Several proposals were put forward for expanding the scope, including long-term network stability, safety, reliability and innovation delivering overall network efficiencies. Some members of the Innovation Working Group also proposed expanding the scope, particularly in gas.[13]

5.17. Low carbon benefits can be difficult to commercialise and to capture fully within the price control incentives. The NIC therefore aims to ensure that low-carbon innovation is incentivised. We are concerned that expanding the scope to wider network sustainability could risk crowding out low carbon innovation. Innovation towards wider network sustainability could also be more difficult to distinguish from incremental improvements in business as usual. However, we recognise that companies may not have sufficient incentive for innovation with wider environmental benefits. Issues such as the reduction of leakage of sulphur hexafluoride (SF_6) or the improvement of visual amenity could benefit from innovation. Environmental benefits

[11] Ofgem, Open letter consultation on the development of gas and electricity innovation stimuli, October 2010. This is available on our website at: http://www.ofgem.gov.uk/Networks/nic/Documents1/Innovation%20Stimuli%20%2012102010%20Open%20Letterpdf.pdf
[12] Wider benefits include those which an individual network company cannot capture through commercial arrangements or the incentives set under the price control.
[13] This working group has been convened to help develop the innovation stimulus package. Further details can be found at the following link: http://www.ofgem.gov.uk/NETWORKS/NIC/IWG/Documents1/Minutes%20from%20the%20first%20innovation%20working%20group%20held%20on%2020%20January%202011.pdf

will therefore be within scope of the NIC. We consider it less likely that low carbon projects will be crowded out by projects with other environmental benefits.

5.18. We recognise that gas networks face many challenges that fall outside of this scope. For example, there is a need for fundamental change in asset management techniques, as set out in the 'Supplementary Annex - Outputs and incentives'.[14] However, we do not think that these issues merit inclusion in the NIC. There are strong incentives in the RIIO framework for companies to invest in learning in this area and funding through the Innovation Allowance can be used for this purpose. In addition, the range of issues faced by gas networks makes it all the more important that funding is available to ensure that the need to address low carbon and environmental issues is not over looked. The NIC will therefore have the same scope in gas as in electricity.

Amount available under the electricity NIC

5.19. In December, we consulted on an annual limit of £25m-£35m per year (a maximum of £280m over the price control period) as the maximum amount of funding that Ofgem could award under the electricity transmission[15] NIC.

5.20. Stakeholders broadly agreed with the level of funding proposed and with our use of the Low Carbon Networks (LCN) Fund as a yardstick in electricity. Some commented that transmission projects are likely to be larger but submitted less frequently. They felt that the funding amount should be set with this in mind. Real-time monitoring and communication are already widely used across the transmission network. Nonetheless, electricity transmission networks do face some pressing issues. For example, they will need to accommodate significant renewable generation connections and manage loads accordingly.[16]

5.21. After considering stakeholder views, we will make available a maximum of £30m per year for the electricity NIC. This amounts to a maximum of £240m over the price control period. It should be noted that the electricity NIC will be for transmission only up until March 2015, after which it will become a combined competition for both electricity distribution and transmission. We will decide on the total amount available for this combined competition as part of RIIO-ED1 but will ensure that at least the £30m set out here is in place until the end of RIIO-T1.

Amount available under the gas NIC

5.22. We consulted on an annual limit of £45m-£50m (a maximum of £400m over the price control period) for gas (distribution and transmission). Stakeholders broadly agreed with the amounts proposed. However, some felt that setting the

[14] Gas network companies will need to gather more and better information about the condition of assets, and use this information to better effect.
[15] Electricity distribution network operators currently have the opportunity to submit innovation projects to the LCN Fund annual competition. This competition will endure for the current Distribution Price Control (DPCR5). In 2015 the LCN Fund will be incorporated within the NIC.
[16] Our project TransmiT is currently reviewing the impact of charging arrangements on renewables.

amount for gas by comparing with the LCN Fund was not a sufficiently robust justification, and that a bottom-up demonstration of the potential funding was required. Stakeholders responded to our calls for examples of potential innovation in gas networks by highlighting issues around accommodating biogas injections into the gas network, blending different gases and exploring impacts of gas being used for transportation. However, stakeholders did not provide indicative costs around such projects. They also argued that funding in gas should be commensurate with funding in electricity.

5.23. We consider that the scale and nature of the low-carbon challenge in gas is less apparent. This view is reinforced by the lack of evidence provided by respondents of opportunities for innovation in this area. The potential projects identified so far address challenges that would appear to be at a much smaller scale and lower cost than, say, projects aimed at understanding the best way to accommodate intermittent generation in electricity. Research we commissioned into the level of ongoing network innovation identified comparatively fewer innovations in gas than electricity, most of which were relatively small scale and relatively low cost.[17] Whilst the LCN Fund has funded two 'smart grids' projects of over £20m each, we have seen no potential for any similar scale or value project in gas.

5.24. We need to ensure good value for customers' money. If we set the level of funding too high then there is a risk that the companies inflate the value of their schemes to reflect the size of the fund, and that money is spent on innovation that does not have clear customer benefits. We have therefore concluded that £20m per year is an appropriate maximum allocation for gas innovation (transmission and distribution). This amounts to a maximum of £160m over the price control period, which represents a considerable uplift on the funding available for innovation in this sector. Should it be demonstrated that there are significant low carbon or environmental innovation opportunities in gas, we would not restrict this unnecessarily. We will therefore allow the independent expert panel[18] (who will recommend to Ofgem which projects should be selected for funding) to recommend a review of the level of funding available, should they consider from the projects submitted and other evidence that more funding is necessary in the future.

5.25. Although we view this as less likely, we will also allow the expert panel to recommend a review of the annual limit in electricity, should sufficient evidence be provided that more funding will be required in future years. It should be noted that in both cases, Ofgem will consult as part of the review, and any decision relating to the annual funding available will apply to future years rather than the year in which the panel triggered the review.

[17] KEMA, 'RPI-X@20: Technological change in electricity and gas networks, a sample survey of international innovation projects.' Available at http://www.ofgem.gov.uk/NETWORKS/RPIX20/CONSULTREPORTS/Documents1/KEMA%20Technology%20changes%20Final%20Report.pdf

[18] An independent panel of experts, similar in composition and role to that used in the LCN Fund. This panel will make recommendations to Ofgem on which projects (if any) should be funded through the NICs.

Funding profile

5.26. In December, we asked whether the amount of funding available should be the same in each year of the price control or reduce over the period.

5.27. Stakeholders presented a range of views. Some preferred a front-loaded funding profile, believing that overall benefits would be maximised by achieving learning as early as possible. This might maximise chances of achieving 2020 targets.[19] Others preferred a constant profile, to maintain innovation opportunities for ideas emerging in the future. Some stakeholders wanted a flexible profile in responding to our October open letter.[20] Similar views were expressed by some members of the Innovation Working Group and in responses to our RIIO Initial Strategy Consultation.

5.28. We acknowledge the urgent need for network innovation up front, particularly for electricity networks. Nonetheless, we expect that new challenges and new ideas for innovation will emerge through the price control period, especially as the Government's 2020 targets approach. We therefore do not think it appropriate to set a funding profile which reduces over time.

5.29. The profile will be flat in real terms, set in 2009-10 prices and increased each year by an RPI measure. As stated above, we consider that the funding amounts are sufficient to fund the early innovations likely to come forward, and we have built in flexibility if there is strong evidence that the annual limit is preventing important learning opportunities and well designed projects from being funded. The amounts we set out are the maximum available funding which Ofgem can award; we are under no obligation to award the maximum in any year, and the funding awarded will be based on the quality of project submissions. Therefore, if the number or quality of submissions reduces over time, the amount of funding awarded may well decline. 'Unspent' amounts will not be 'banked' or carried over from year to year.

Funding mechanism

5.30. We consulted on three possible ways of allowing network companies to recover the monies to be transferred to licensees implementing NIC projects:

- option 1 - fast money, recovered in the year of expenditure (current customers pay)
- option 2 - slow money, added to the Regulated Asset Value (RAV) and recovered along with the cost of financing expenditure (future customers pay)

[19] The European Commission Directive on the promotion and use of energy from renewable sources was adopted in April 2009. It contains a target for the UK to produce 15 per cent of total energy consumption from renewable sources by 2020. The Climate Change Act 2008 contains a legally binding target for the UK to reduce greenhouse gas emissions to 80per cent of the 1990 level by 2050. In April 2009 the Government issued carbon budgets covering the period to 2023, committing the UK to a 34 per cent reduction on 1990 levels by 2022.

[20] Ofgem, 'Innovation Stimulus open letter consultation', 12 October 2010. Available at http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=285&refer=Networks/Policy

- option 3 - a fixed share of fast and slow money following the standard expenditure capitalisation ratio as applied in the relevant price control (current and future customers pay).

5.31. One respondent expressed concerns over the fairness of using fast money. They felt that fast money would place undue financial strain on current customers, given that future customers are the main beneficiaries of innovation. However, most stakeholders felt that fast money is the best approach, given its relative simplicity.

5.32. We will therefore allow the network companies to recover the transferred costs through fast money. We consider that the impact on current customers is proportionate, as set out in our impact assessment in Appendix 2.

Partial funding

5.33. We consulted on setting the proportion of project costs funded by NIC at 80 per cent. The remainder would be provided by the implementing network company or third party. Applications for funding would need to justify their proposed funding share, which could be less than the maximum.

5.34. Many respondents expressed a preference for the funding share to be set at 90 per cent – the same share as for the LCN Fund. Those who commented on this point felt that an 80 per cent funding share would reduce incentives to participate, resulting in lower quality NIC submissions.

5.35. We agree with respondents and have therefore set the proportion of funding provided by NIC to a maximum of 90 per cent. Submissions will need to justify the ratio of wider benefits to customers versus direct benefits to project participants. We would therefore expect the submitted NIC funding ratio to be lower where the maximum cannot be justified.

Innovation Allowance

5.36. In December, we consulted on introducing a limited amount of innovation funding directly to each company – the Innovation Allowance. This would be aimed at smaller projects where overheads could deter application for NIC funding. We proposed a wider scope to include innovation outside the low carbon and environmental scope of the NIC.

5.37. We consulted on two options for setting the annual allowance amount:

- option 1 - one per cent of allowed revenue, justified by an accompanying innovation strategy
- option 2 - an outputs-based approach where companies could justify up to two per cent of allowed revenue based on the quality of the outputs in their innovation strategy.

5.38. Stakeholders universally agreed with the proposed Innovation Allowance introduction. Several felt the Innovation Funding Incentive (IFI) made progress in stimulating innovation and has fostered a collaborative approach across a range of different industry parties. Respondents expressed a preference for a fixed innovation allowance (option 1). Our proposal to require an innovation strategy received some support. One respondent felt this would help provide value for customers' money. Others welcomed the opportunity to set out objectives and provide supporting logic for innovation spending. However, some stakeholders indicated it would be difficult to set a strategy to cover the full price control period, due to the difficulty of anticipating changing innovation needs. Of these, some indicated particular difficulty in setting appropriate outputs. These concerns were mirrored in the Innovation Working Group.

5.39. We will therefore introduce a limited Innovation Allowance of between 0.5-1% of allowed revenues for each company. We will set the amount of this allowance dependant on the quality of the company's innovation strategy. The allowance will be provided on a 'use it or lose it' basis and companies will self-certify against their innovation strategies and criteria that we will develop later in the process. A network company will be able to pass through a maximum of 90 per cent of total Innovation Allowance expenditure to customers. The Innovation Allowance will fund smaller scale research, development, trials and demonstration projects, and will cover all types of innovation, including commercial, technological and operational.

5.40. We consider it important that the Innovation Allowance incentivises efficient expenditure and that companies deliver against defined innovation goals set out in an innovation strategy submitted with their business plan. We are therefore combining the principles behind the two options and reducing the amount of funding available to reduce the attractiveness of taking the easy option, where the quality of the innovation strategy does not matter.

5.41. Companies will be able to spend their allowance according to the goals and objectives set out in their innovation strategy. Companies wishing to spend more than 0.5% of allowed revenue should request the higher amount in their innovation strategy, up to a maximum of 1% of allowed revenue. This should be accompanied by a justification, which includes reference to the enhanced objectives set out in the company's innovation strategy. We will judge requests for amounts above the minimum by the quality and content of the innovation strategy.

Innovation strategy

5.42. Network operators should include an innovation strategy as part of their business plan, explaining the company's approach to innovation, its motivation and objectives. We expect an innovation strategy will include at least the elements set out below:

- set out the high-level problem(s) or challenge(s) which the sector/company expects to face over the period, and the justification for initiating projects to address these

- what the company will be watching in order to judge what the focus should be for innovation in later years in the price control
- demonstrate that the problems/challenges have been identified/prioritised and justified in consultation with stakeholders
- discuss the relative priorities, risk, benefits, value for money and potential customer impacts
- discuss what will happen if the innovation(s) did not occur
- include 'deliverables' and potential deliverables from the research and development or trials, such as defined learning on an issue, revised codes, new charging methodologies etc.

5.43. We expect that these innovation 'deliverables' will be of a different nature to the outputs set out elsewhere in the business plan. Learning can be gained from projects which succeed and likewise from projects which 'fail'. Innovation outcomes are uncertain and difficult to predict ex ante. We also recognise that innovation objectives could change over the price control period. However it is important that the company sets out clearly at the beginning of the period, the key issues it is looking to learn about and how these might change over the following eight years.

Revenue-adjustment mechanism for rolling out innovative solutions

5.44. In December, we consulted on introducing a revenue-adjustment mechanism for rolling out new proven solutions, which were not identified at the time the business plan was submitted and which benefit customers but are not commercially viable within the price control period. The mechanism thereby intended to prevent delays to beneficial rollout. We proposed that non-business as usual rollout would be funded where:

- it facilitates a low carbon energy sector
- it facilitates the achievement of environmental outputs
- it has insufficient commercial benefits within the remainder of the price control period for the company to undertake it
- the net additional revenues required to fund the rollout are material.

5.45. We also invited views on whether there should be an annual or single (mid-period) opportunity to submit projects for revenue adjustment.

5.46. Stakeholders generally supported the introduction of a revenue-adjustment mechanism. Some agreed this would encourage innovation beyond that set out in the business plan. One respondent felt that funding under the mechanism should be contingent upon outputs. Another indicated that innovation projects might not have outputs themselves, but might facilitate outputs (for example, in conjunction with changes in customer behaviour). We received mixed views on the frequency of opportunity for revenue adjustment. Some felt an annual opportunity could be onerous for Ofgem. Others felt an annual opportunity would minimise delay to roll-out. One stated that a revenue-adjustment mechanism will not be required in the last two years of the price control (because they could be included in business plan submission).

5.47. We have decided to introduce the revenue-adjustment mechanism. Companies will be able to apply for funding for the rollout of proven innovative solutions with low carbon or environmental customer benefits where there is a material barrier to the individual company undertaking the rollout on its own. Funding will be provided through a company's allowed revenue using the standard capitalisation ratio. All projects will need to demonstrate they represent value for money to consumers in the long term.

5.48. The rollout of an innovative solution will receive additional funding within the price control period only where:

- it will be beneficial to facilitating a low-carbon energy sector or will provide environmental benefits
- it has insufficient commercial benefits (for example through cost savings or improvement in outputs) within the remainder of the price control period for the company to justify undertaking it
- the additional net funding required for the rollout is sufficiently material to prevent the company from undertaking it, and
- the company commits to pre-agreed deliverables (which we will look to define in terms of outputs).

5.49. As set out in the 'Supplementary Annex – Uncertainty mechanisms', the Authority's definition of material is more than 1% of the company's allowed expenditure after application of the IQI efficiency incentive.

5.50. We will provide companies with an annual opportunity to apply for revenue adjustment, where they can make a case for rollout based on new evidence. Submissions will be subject to an annual deadline and will be considered in a single annual process. However, given the criteria set out above (especially materiality) we do not expect companies to submit every year. Nor do we consider it likely that projects will be submitted in early or latter years of the price control.

6. Efficiency incentives

Chapter summary
This chapter provides an overview of our proposals on the efficiency incentive rate and information quality incentive (IQI) that we included in the initial strategy consultation document in December. It summarises the responses received to that consultation and sets out our approach to these issues, in light of the responses.

Overview of decision

6.1. We remain committed to ensuring that the network companies have strong efficiency incentives, in line with the principles of the RIIO model. We will implement a fixed and symmetric incentive rate as part of both RIIO-T1 and GD1. We will use the IQI to provide incentives to network companies to submit reasonable cost estimates in their July 2011 business plans.

Efficiency incentives

Summary of consultation proposals

6.2. In the initial strategy consultation, we set out that under RIIO-T1 and GD1 we want to ensure that network companies face strong financial incentives to control their costs. We outlined that this would be facilitated by the commitment to a fixed and symmetric efficiency incentive rate for each company and a further commitment that will not make retrospective adjustments to revenue if costs are different to what was assumed when the price control was set. We clarified that the efficiency incentive rate would be applicable to both opex and capex to reduce the risk of distorting decisions.

6.3. We proposed to make two adjustments to the way that the efficiency incentive rate was implemented as compared with previous price controls. First, it would be implemented through annual revenue adjustments rather than an adjustment at the end of the price control. Second, we proposed that the adjustment would be made through the RAV rather than through cash allowances as in the past.

6.4. We proposed to apply an efficiency incentive rate of between 40 and 60%. We considered this likely to provide strong incentives on the network companies to act efficiently. The exact rate would be set through the IQI.

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. We identified that in the case of gas transmission, NGG is subject to a suite of separate financial incentive schemes to restrain different categories of its costs, which can lead to complexity and may distort expenditure decisions. To address this, we proposed to implement a single efficiency incentive rate across all these categories of gas transmission expenditure and to remove existing caps and collars.

Summary of consultation responses

6.7. Some respondents were supportive of our proposed approach to efficiency incentives. Although some welcomed our proposals to adjust revenues as soon as practically possible, a number had concerns about the impacts that this could have, including the potential for increased price volatility and complexity.

6.8. A number of respondents thought our proposed range for the efficiency incentive rate was appropriate. However, some thought the efficiency incentive rate should be set higher in the case of gas distribution (with suggestions of 50-65%). Another thought the range was too high for electricity transmission, at least in the case of the large capital projects required in that sector.

6.9. There was support for our proposals to replace the current suite of separate incentive schemes in gas transmission with a single efficiency incentive rate.

Our decision

6.10. We remain committed to the use of a fixed and symmetric incentive rate. However, we propose to alter the ranges following further consideration of issues highlighted in our strategy consultation document. We have decided on the following approach:

- The range for gas distribution companies will be 50 to 60%.
- The range for electricity and gas transmission companies will be 40 to 50%.

6.11. These ranges are intended to provide sufficiently strong incentives in all sectors, whilst supporting greater alignment between TO and SO incentive schemes and avoiding excessive deviations from the current incentive arrangements.

6.12. In our December document we said that, in the case of transmission, we are considering the potential for greater alignment between the SO incentive schemes and the efficiency incentive rate applied under the TO price controls. We identified that this might lead us to the view that 40-60% would not be appropriate across all TO and SO cost categories. We have given this issue further consideration. We are concerned that a rate for the TO price control towards 60% could reduce the scope for greater alignment with SO incentive schemes. Some of the existing gas and electricity SO schemes have a rate of 15-25%. Our decision to apply the lower range of 40-50% to transmission reflects the importance we attach to achieving greater alignment across the TO and SO incentive arrangements. It also reflects the greater degree of uncertainty surrounding transmission investment as the generation and supply mix changes to meet the government's carbon targets.

6.13. We do not see a need to reduce the range applied to gas distribution. The concerns about TO-SO interactions do not extend to gas distribution. In addition, some stakeholders argued for a higher range for gas distribution, arguing that our proposed range of 40-60% might lead to weaker incentives to reduce costs. We do not agree entirely with these arguments, not least because they ignore the extension of the price control period from five to eight years, which contributes to stronger efficiency incentives. This is the case for spend made over a number of years and the certainty available about the rewards for efficient spend made each year. But we recognise that the current position is one in which efficiency incentives are stronger in gas distribution than transmission. Because of the higher proportion of operating expenditure in gas distribution than transmission, a higher proportion of expenditure incurred by gas distribution companies is currently subject to the 100% incentive rate. In addition, the incentive rate applied to non-load-related capital expenditure is lower in transmission than gas distribution: 25% compared to a range across companies of 33-36%. We see benefits in avoiding excessive deviations from the current incentive arrangements where possible.

6.14. We confirm our proposals to apply a single efficiency incentive rate (without any caps and collars) to a number of different areas of NGG expenditure that are currently covered by separate incentive schemes which were set at TPCR4. The areas to be aligned are:

- non-load and 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.

Figure 6.1: The different incentives currently facing NGG as TO and SO

TO costs	SO costs

NGG	Existing schemes within scope of changes proposed in RIIO-T1 Decision paper	Existing schemes subject to separate review in work-stream on SO incentive schemes
Set baseline costs	TO costs – baselines - Opex - Capex SO Internal costs – baselines - Opex - Capex	SO external costs – baselines / targets
Set output incentives	Non-obligated exit capacity* Early delivery incentive (permit scheme)*	Residual balancing: - Price performance measure* - Linepack measure* Unaccounted for gas (UAG)* Demand forecasting* Data publication (quality of information)* Venting (Environmental Incentive)*
Set efficiency incentives	Opex (effectively 100%) Capex (25%) Incremental capacity (effectively about 35%) Constrained LNG (storage) (100%) Long-running exit contracting (50%) Buy-back: - Incremental entry capacity (100%)* - Incremental exit capacity & interruption (100%)* - Operational entry capacity (50%)*	Shrinkage (+25%/-20%)* Operating margins (gas reserve) (0% in 2010/11) SO internal costs – incentive rates - Capex (25%) - Opex (40%)

6.15. Given NGG's dual role as both SO and TO, it will be affected by two of our current major projects: the RIIO-T1 price control review, and a separate review of the SO incentive schemes. These two reviews broadly affect TO revenues and SO revenues, respectively, but there are some exceptions. Table 6.1 illustrates which revenues and existing incentives are within the scope of the RIIO-T1 Decision Paper, and which are subject to the separate review of the SO incentive schemes. In the table, revenues are divided into three categories: First, baseline costs are the allowances that are set based upon expected expenditure. Second, output incentives provide a reward or penalty determined by performance, which is determined in part by expenditure. And third, efficiency incentives are the company's exposure to any variation between actual costs and the baseline/target, which can include expenditure relating to output incentives. Present incentive rates are given in brackets, and an asterix indicates that caps and collars apply, so the effect of rates cannot be compared directly. Please note that the diagram is not comprehensive.

6.16. One stakeholder asked for further clarification on what expenditure would be excluded from the efficiency incentive rate, saying that exclusions should be set out clearly in advance and minimised wherever possible. The stakeholder argued that whilst it is fair that general fines and penalties have a 100% incentive rate (ie are not passed through, in part, to consumers), this does not follow for traffic management permit fees. We agree: traffic management permit fees should be included within the scope of the costs that are subject to the efficiency incentive rate.

6.17. Stakeholders asked for greater clarity on how the incentive rate would be implemented in practice. We have carried out further work on this, building on the approach set out in our December document. We have developed a first version of a spreadsheet that shows how we plan to implement the efficiency incentive rate, and we intend to make this available to interested stakeholders together with some supporting documentation.

6.18. One stakeholder raised concerns that there are interactions between our proposed implementation of the efficiency incentive rate and our proposed arrangements for indexation of the cost of debt, which may lead to perverse incentives. In particular, it was concerned that the volatility of the short-term market cost of debt, when it diverges from the long-term trailing average, may affect the effectiveness of the upfront efficiency incentive by creating a perverse incentive to over/under-invest. We do not see such an interaction. Regardless of the prevailing value for the cost of debt under any annual indexation mechanism, we would expect that, during the price control period, the profitability of any potential investment is driven primarily by the contribution of that investment to the delivery of the outputs agreed at the price control review. This is an important feature of an outputs-led framework. We would not expect that, during the price control period, a company's choices about possible investments would be driven by the opportunity to earn a regulated return on the capital expenditure it incurs; our proposals for an efficiency incentive rate of at least 40% mean that, at most, only 60% of any additional expenditure that a company incurs during the price control period can be recovered from consumers in the future.

6.19. We recognise concerns about price volatility. However, we retain the view that revenue adjustment due under the efficiency incentives should be made annually during the price control period. The possibility of price volatility arises not simply from the efficiency incentive rate, but other sources such as uncertainty mechanisms. Rather than changing our proposed approach to the implementation of the efficiency incentive rate (eg to delay revenue adjustments until the end of the eight-year price control period) we consider it more appropriate to consider more general ways in which any adverse impacts of price volatility might be mitigated. We discuss these issues in the supporting paper on uncertainty mechanisms.

The IQI

Summary of consultation proposals

6.20. The 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. We proposed to use the IQI in RIIO-T1 and GD1 on the basis that this would provide incentives to network companies to provide more robust expenditure forecasts in their business plans. We set out that if a company's forecast of its spending requirements matched our assessment of efficient costs we would calibrate the IQI such that the company could earn a return equal to our estimate of its cost of capital. We noted that under the IQI different companies would face different efficiency incentive rates determined based on the ratio between its expenditure forecasts and our assessment of its expenditure requirements.

6.21. For non-fast-tracked companies, we proposed to compare the companies first forecast of costs submitted in July 2011, against our last assessment of efficient expenditure for that company.

Summary of responses

6.22. Stakeholders made a variety of comments about specific aspects of the design and application of the IQI, which we pick up below as we set out different aspects of our decision on the IQI.

Our decision

6.23. Following stakeholder comments, we have decided to make changes to the application of the IQI.

6.24. We note that in responses to our business plan proposals, some respondents said they viewed the July 2011 business plan as a step towards a second plan in early 2012. As outlined in Chapter 3, we consider the July 2011 business plans to be of significant importance and therefore companies should seek to make every effort to submit a well-justified business plan at this point.

6.25. In order to provide incentives for companies to submit robust cost forecasts in their July business plans, we intend to use companies' first business plan submission and our final cost assessment to determine the reward/penalty and the marginal incentive rate under the IQI. However, in applying the IQI for non-fast-tracked companies, we will accept reasonable changes to their first business plan submission, changes in response to feedback from us and changes to outputs in response to new information.

6.26. A number of stakeholders expressed concerns with our proposal to calibrate the IQI such that a company would need to submit an expenditure forecast that is no greater than our own cost assessment for that company if it is to achieve a return equal to our estimate of its cost of capital (leaving aside the potential for higher returns from under-spends or out-performance of output incentive schemes). They felt there should be greater scope under the IQI for companies to earn rewards above the cost of capital if they submitted a reasonable expenditure forecast. Some stakeholders saw our proposed approach as a penalty-only scheme. We have decided to change this element of IQI calibration (which might be seen as the break-even point).

6.27. We will take a different approach in RIIO-GD1 from RIIO-T1, This is because of the more limited scope for comparative cost assessment between the regulated companies in T1. For GD1, we intend to calibrate the IQI such that companies who submit efficient cost forecasts will earn a positive financial reward (above their financing costs). We will define efficient costs in such a way that some companies' cost forecasts will be below our benchmark costs, ie they will earn a positive financial reward. For RIIO-T1, we intend to calibrate the IQI such that companies who submit a cost forecast equal to our view of their efficient costs, and then deliver on this, will earn positive financial rewards (ie above WACC). Companies that submit relatively high forecasts, or spend more than our view on efficient costs, may earn a lower return. All companies across both RIIO-GD1 and T1 will have opportunities to earn positive financial rewards (ie above WACC) if, during the price control period, they can deliver outputs for less than our view of their efficient costs.

6.28. In our consultation we proposed to include companies' forecasts about Real Price Effects (RPEs) within the scope of the expenditure forecast to which the IQI is applied, but said that we welcomed views on this. One stakeholder suggested that such inclusion would be an unnecessary complication, but we are not persuaded that this is the case. Indeed, it seems more complicated to draw distinctions between the elements of a company's expenditure forecast to which the IQI is applied and the elements of its expenditure forecast which are outside the scope of the IQI. Another stakeholder identified the uncertainty surrounding real price effects and expressed preference for an uncertainty mechanism. We do not see why this would provide the basis for excluding RPEs from the IQI. Regardless of whether an uncertainty mechanism is applied, it will remain important that price controls are based on reasonable forecasts of RPEs. We see no reason not exclude real price effects from the scope of the expenditure forecast to which we apply the IQI.

6.29. Finally, stakeholders asked for more clarity on what expenditure would be within the scope of the IQI and what the interactions are with Ofgem's planned cost assessment. We provide some further clarification below on two issues:

- consistency with outputs agreed at price control review
- interactions with uncertainty mechanisms.

6.30. It is important that the comparisons between company forecasts and our own cost assessment that feed into the IQI are made on a like-for-like basis. In particular, there should be consistency in the set of outputs that the expenditure contributes towards. This may require adjustments as part of the IQI calculations.

6.31. For example, in the case of electricity transmission we expect companies to include proposals for specific investments that will increase the transfer capability of the transmission system as part of their business plan baselines. If we accepted the case for an increase in transfer capability at a specific transmission boundary, and decided to include it as part of the outputs set at the price control review, funding for the increase would contribute to base revenue and the company's expenditure forecast for this work would be within the scope of the IQI. If, in contrast, we decided that it was not in consumers' interests to fund that increase in capacity through base revenue then we would exclude the company's expenditure forecast for this work from the forecasts used for the IQI.

6.32. Where uncertainty mechanisms are used which would be calibrated at the price control review, we would like to include the corresponding elements of company forecasts within the scope of the IQI. However, in some cases this may not be possible without introducing extra significant complexity.

6.33. In the case of volume drivers, our aim is to use the IQI to encourage network companies to provide accurate forecasts of the unit costs which would be used to calibrate the volume driver at the price control review. The use of an uncertainty mechanism means that it is not necessary to have accurate forecasts of volumes. For the purposes of the IQI, we will apply a common assumption on volumes to both the companies' proposals and our assessment of costs to enable a comparison. This assumption would be made in light of the forecasts of volumes in the company's business plan, but we would not be restricted to these forecasts.

Appendices

Index

Appendix 1 - Consultation Questions and Responses

1.1. Responses received by Ofgem which were not marked as being confidential have been published on Ofgem's website www.ofgem.gov.uk. Copies of non-confidential responses are also available from Ofgem's library.

1.2. The following is a summary of those responses, which were received.

Chapter 2

Question 1: Do you have comments on the description of the form and structure of the price control?

1.3. Two respondents supported our proposed form and structure for the price control but a further respondent suggested that this should be determined in line with the specific circumstances of the sector under consideration.

Question 2: Is the scope of the price control including the range of services excluded appropriate?

1.4. Two respondents considered the scope of the price control to be appropriate although they noted that excluded services may vary over the price control period especially given that it has now been extended. Other respondents also made reference to the need for flexibility in the definition of excluded services, noting the potential for new products to be developed. Further, two respondents highlighted provisions in gas distribution related to a metering provider of last resort. They highlighted the associated price control as well as the post emergency metering services and suggested these should be in the scope of the review.

Question 3: What are the appropriate criteria for assessing whether a proposed change to the revenue profiling is appropriate?

1.5. Three respondents expressed support for the principle of setting base revenue each year with two noting benefits in terms of transparency. Five respondents suggested that when assessing a proposal to re-profile revenues we should consider the impact on consumers, including the potential for reduced volatility. A further five respondents also noted the importance of having regard to financeability considerations when assessing any proposed re-profiling of revenues. Two respondents made reference to the discount rate that should be used when re-profiling revenues, highlighting that the only discount rate to use would be the WACC, consistent with past regulatory treatment.

Chapter 3

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?

1.6. Five respondents expressed support for the level of guidance we had provided to date with respect to completion of network company business plans. Some emphasised that the guidance should not be overly prescriptive, with flexibility used where necessary. Two respondents requested further clarity on elements of the business plan, specifically the link between uncertainty mechanisms and business plan forecasts and the extent to which network companies would be able to propose new outputs or incentives. Two respondents requested early sight of proposed data templates while two further respondents welcomed our decision not to produce such templates.

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?

1.7. Five respondents supported the proposal to use ten years of data, forecasting out to 2020/21. While respondents understood the rationale for providing a further five years of business plan data beyond the coming price control period, they highlighted uncertainty over this period and noted that data should be presented in summary form as an indication of future trends, with an associated narrative.

Question 3: Do you support the basis of our initial sweep assessment?

1.8. Three respondents expressed support for the proposed approach to the initial sweep. Of these, one suggested that we should consider the initial business plan submission in July as a 'stepping stone' toward a well-justified business plan. Respondents highlighted a range of indicators that could inform an assessment of past performance. However, a number noted the limited evidence that would be tailored to past performance on output delivery and suggested that greater weight should be given to the quality of the business plan in the initial sweep.

Question 4: What should be included in our assessment of past performance at these first reviews?

1.9. Seven respondents expressed support for the assessment criteria that we presented and suggested it was sufficiently robust to allow network companies to develop their business plans. Two respondents requested clarity on how we would apply these criteria while a further two respondents requested clarity on the weighting, in terms of importance, that we would apply to each assessment criteria. Two respondents set out suggestions in terms of the way that the criteria should be amended to reflect the needs of the business plans and both highlighted concerns with 'criteria 2: Acceptance of our policies'.

Chapter 4

Question 5: Do you have comments on the proportionate treatment process?

1.10. Six respondents expressed support for the proportionate treatment process, welcoming the use of better regulation to allow us to focus our resources on areas most likely to deliver benefits for consumers and reduce administrative burden. One respondent suggested Ofgem should exercise caution in its use of proportionate treatment if there was any doubt about the quality of a network company business plan. Another respondent highlighted that it would be important for the regulatory burden to be reduced demonstrably for companies that provided well-justified plans.

Question 6: Do you have comments on our assessment criteria?

1.11. A number of respondents favoured greater focus on the quality of the business plan than recent past performance. However, one response highlighted a wide range of things that could be used in the assessment of the companies recent past performance. One respondent welcomed the subjective basis of the criteria allowing for case-by-case assessment. Another felt this was a disadvantage and looked for more objectivity before a business plan could be prepared. Some respondents were pleased by the positive pressure to produce a good plan in July 2011. Others raised concerns including the need for a step change in Ofgem's financeability and incentive proposals to encourage an interest in fast-tracking.

Question 7: Do you support the way we propose to apply fast-tracking?

A range of views were presented both in terms of whether fast-tracking was a reasonable goal in the first review or whether it was desirable to apply limited scrutiny to anyone. Some responses suggested being cautious and rigorous in testing the quality of all the plans.

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?

There was general support for this aim but concern about the practicality of delivery.

Chapter 5

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?

1.12. Five respondents felt that the scope should be wider than low carbon only. Respondents made a number of suggestions about what should be included in the innovation stimulus scope. Network sustainability was mentioned by three respondents. One respondent felt that the term sustainability would need to be clearly defined and another thought that the scope should be extended to sustainability for the gas network only. Network efficiency, value for money and reduced costs were other considerations. One respondent commented that projects which focus on delivering efficiencies may additionally deliver low carbon solutions. They also suggested that consideration could be given to scoring or weighting projects so as to promote lower carbon projects but not exclude other projects to economically develop the network. Another view was that safety, reliability and commercial developments are equally important to stakeholders as low carbon technologies. An additional point raised was that we need to ensure that the innovation framework covers all stages of the innovation cycle from smaller scale R&D to smaller and larger network trials. One respondent suggested that the innovation stimulus should allow companies to look at other types of innovation such as offshore routes.

1.13. One response indicated a preference for keeping the scope focussed on low-carbon projects which deliver long-term value for money for consumers.

1.14. One respondent thought that Ofgem and stakeholders should more clearly describe the low carbon future and the targets being set for networks to achieve. It was felt that this will be important for managing the fund and for describing it to customers.

1.15. In response to our question about whether a different scope should be applied to gas and electricity, two respondents agreed. Both felt there should be a wider scope for gas, one that promoted the development of both low carbon and sustainable networks. One of the respondents noted that the low carbon future needs of the electricity network and the existing package of efficiency incentives means that a purely low carbon scope is appropriate for electricity.

1.16. Two respondents did not agree that the scope for gas and electricity needed to be different. They felt that although gas and electricity networks face different challenges, they have the same core goals and therefore do not require a separate scope. On a related point one respondent commented on the split nature of the funding (one pot for gas and one for electricity). They noted that innovation projects may involve solutions that encompass both sectors. An example provided was that of increased use of electrical heating as a substitute for gas-fired heating. They felt that having a cross-sectoral project would not be a problem so long as it is recognised that there can be secondary benefits for customers of the alternative network type.

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?

1.17. Most respondents agreed with the level of funding. A number commented on the tension that could develop as a result of being required to award funding for transmission and distribution projects from the same pot. Two respondents cautioned against unduly favouring one source over another. Another two respondents suggested that the transmission and distribution elements should be kept separate. A recommended alternative was to have an optional notional split between transmission and distribution funding to maintain a degree of separation. One respondent was concerned that the way criteria was set could increase the tension between distribution and transmission funding. If projects were awarded based on the ability to rollout learning to other networks this could see distribution projects favoured over transmission projects for example. Another concern raised was that with a shared distribution/transmission fund the bulk of funds may be may be swallowed up by larger transmission projects at the expense of distribution.

1.18. Two respondents disagreed with the proposed level of funding. Both felt that the scale of change required is significant and it would therefore be better to set the level higher. They thought it would be easier to reduce spend than to increase the level of funding if it is found to be insufficient. Another concern raised was that the innovation stimulus does not consider any inflation factor. As such any amount awarded will markedly diminish over the course of the eight year price control period. Given that expenditure by transmission network operators is forecast to increase substantially over the price control period the respondent felt that a fixed fund did not reflect these increases.

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?

1.19. Most respondents agreed that networks should be required to meet the costs of the innovation through fast cash. One respondent pointed out that meeting the costs through slow cash could have a negative impact on financeablity. Using fast cash would avoid this. Another respondent felt that the R&D nature of innovation is best suited to within-year funding (fast cash) rather than being added to regulatory asset value (RAV). A further comment was that the nature of innovation makes the financial modelling of such investments difficult on a slow cash or standard expenditure basis. Innovation may have a shorter lifespan than traditional investments and in some instances the trial may be unsuccessful. An alternative suggestion was that fast cash be released on a milestone basis within each specific project.

1.20. Two respondents said that there was an argument that applying the standard capitalisation ratio is fairer from an intergenerational perspective. One of the respondents thought this was especially the case where the results of a successful innovation are rolled out. However, for trial projects they thought this was less of an issue. One respondent felt that a mismatch of funding to the expenditure would add risks for potential participants. A number of respondents also commented on the profile of innovation stimulus funding available over the price control period. Two stated a preference for front-loading the maximum amount of funding which could be awarded each year. Given the scale of the challenge to reduce CO_2 emissions by 2020 we should try to maximise the chance of success by accelerating innovation.

1.21. One respondent supported a constant maximum annual level of funding. They said this approach would allow good ideas in later years to be funded and ensure that only the best projects are funded.

1.22. Five respondents commented on the proportion of funding that should be provided through the NIC. All five thought that 90 per cent of funding should be provided. Two respondents felt that 80 per cent places a higher risk on companies that may not see a return from their contribution. Another felt that there is insufficient evidence to suggest that 90 per cent is too high and that reducing the amount could have a consequential effect on the quality and number of applications for funding. One respondent felt that setting the maximum funding to 80 per cent would reduce the incentives for investing.

1.23. One respondent commented on the lack of a discretionary fund. They felt that not all carbon reducing innovation initiatives will lead to network cost reductions and yet they will be expected to participate in initiatives that offer no reward.

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 incentives efficient investment in innovation?

1.24. All respondents supported the proposal to provide a limited innovation allowance directly to each company. One agreed that the scope should focus on small projects. Another commented that they were keen to engage with stakeholders on the potential for dedicated areas of innovation. A further comment was that the limited allowance should apply to innovation at all stages of readiness; R&D as well as trialling.

1.25. Four respondents supported the allocation of 1% of regulated revenue to the innovation allowance over the outputs based approach. A key concern noted about the outputs-based approach was that because innovation is by its very nature highly uncertain that outputs are not easily quantified.

1.26. An additional view was that companies should manage the fund internally and produce annual reports on the innovation undertaken and benefits obtained. The inclusion of an innovation strategy in the business plan was seen as a valid way to set out opportunities for which new solutions are sought.

1.27. One non-network respondent supported 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. They felt this approach would facilitate better value for customers' money, but felt that a cap of 2% of regulated revenue was excessive. Instead they suggested a maximum of 1-1.5%. An alternative view was that an outputs-based method might restrict the ability of companies to respond to customer requests.

Question 5: Do you agree that there should be a revenue adjustment mechanism to encourage innovation rollout 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?

1.28. The idea of a revenue-adjustment mechanism was well received. One respondent commented that the criteria should focus on whether implementation of the innovation will provide long term benefits to customers and if the innovation would be adopted in a timely manner without any acceleration of allowed revenue. Another said Ofgem should retain an open mind as there may be additional valid criteria eg some potential benefits are contingent upon factors outside the network companies' control and the criteria should accommodate this possibility.

1.29. Two respondents were keen that the revenue-adjustment mechanism be flexible. A number of respondents remarked on the frequency of the adjustment, on which a range of suggestions were offered. These included comments that it should not be time bound it should be annual, there should be a window every two years, it should be within the middle four years of the price control period and it should be a single point within the price control period. It was felt that fewer points of adjustment would allow new ideas to develop to a level of readiness avoiding unnecessary rollout delays. It would also place less of a resource burden on Ofgem or companies.

Chapter 6

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?

1.30. A number of stakeholders disagreed with annual revenue adjustments for the efficiency incentive rate, given the concerns associated with revenue variability.

1.31. One stakeholder provided specific comments on the details of how the efficiency incentive rate could be implemented on issues that we had left open in December.

1.32. One stakeholder raised concerns about our proposed approach to efficiency incentives. It considered more outperformance should be retained immediately rather than awaiting RAV changes.

1.33. Another stakeholder was concerned about the interaction between the efficiency incentive rate and the proposals for the cost of debt indexation.

Question 2: Do you agree with our proposed range for the efficiency incentive rate?

1.34. A number of stakeholders considered that there may need to be flexibility in the application of the efficiency incentive rates, eg allowing for differences for expenditure with different risk profile. One stakeholder argued for a lower rate for major electricity transmission capital projects. Another argued that the rate should be 100% for non-asset related costs including business support costs.

1.35. A number of stakeholders on GD1 argued that in gas distribution the proposed range would weaken efficiency incentives compared to the current framework set at GDPCR1.

Question 3: Do you agree with our proposed approach to the calibration of the IQI?

1.36. There was concern that insufficient upside would be available to companies and that applying the IQI to the first company forecast but then a later Ofgem forecast is not appropriate.

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?

1.37. Responses were broadly supportive.

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?

1.38. Responses were broadly supportive.

Question 6: Do you have views on the scope for alignment that we have proposed?

1.39. SO TO alignment was supported by two non network responses. One highlighted the alignment in gas being as important as in electricity. The other argued that the greater alignment would incentivise overall lowest cost solutions for consumers.

1.40. A network company response does not see significant scope for greater alignment.

Appendix 2 – Final Impact Assessment, Network Innovation Competition and Innovation Allowance

Summary

1.1. This final impact assessment (IA) sets out the potential impacts, costs and benefits of the elements of the innovation stimulus package set out in Chapter 5 of this document. These primarily relate to the level of funding and the scope of the Network Innovation Competition (NIC) (which was referred to as the innovation stimulus in the December document) and the Innovation Allowance. This IA builds upon the IA in the December document. We will be further developing more detailed elements of the innovation stimulus package. Should any of the costs, benefits or risks associated with introducing the innovation stimulus package be materially altered by future policy decisions, we will update this impact assessment accordingly.

1.2. 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 NIC and the Innovation Allowance are likely to considerably exceed the costs. Furthermore, the costs of adapting networks to deliver a sustainable energy sector could be significantly higher without further network innovation. Providing incentives for testing new technologies and new operational and commercial arrangements on networks will therefore benefit customers. We consider that there is a strong case for introducing the innovation stimulus package as part of RIIO-T1 and GD1, as set out in Chapter 5.

Key issues and objectives

1.3. As set out in the December document 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. Potential initiatives include ‘smart’ energy grids, two-way energy flows, active demand-side management, bio-methane injection onto the gas network or deployment of energy storage. Network companies will need to respond to these changes. 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 delays created by network investment. It may also change the commercial relationships which network companies need to enter into.

1.4. Network companies will need to innovate in the way they design, build, operate and charge for their networks to meet these challenges. We anticipate that over £30 billion will need to be spent on networks over the next 10 years.[21] The RIIO model has several elements that should help promote all types of innovation. The outputs-led approach should incentivise network companies to find new ways to deliver their primary outputs. The longer-term price control framework will encourage network companies to depart from business as usual. Companies will be able to justify the

[21] Across the four scenarios presented in our Project Discovery the level of investment needed ranges from £30.6 - £31.8bn.

benefits of innovations by demonstrating commercial benefits extending beyond the price control.

1.5. However, network companies may be deterred from innovating where commercial benefits are unproven. Benefits might rely on new and unproven commercial arrangements or be difficult to capture, quantify, or verify. As set out in our RIIO Initial Strategy we are proposing a package of measures to address this. This consultation focused on elements of the package which influence network companies' business planning for the RIIO-T1 and GD1 price controls. A parallel workstream will address remaining issues around the stimulus package.

1.6. 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.

1.7. Learning from projects funded through the NIC must be disseminated throughout the industry, ensuring benefits accrue to all customers.

Options

1.8. The base case and options follow those set out in our December document.

Base case

1.9. The base case assumes there are no explicit incentives to innovate. The RIIO framework has several elements that will incentivise technological, operational, commercial and charging innovation, including the following:

- The outputs-led approach 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, should enable companies to demonstrate the commercial benefits of adopting new technologies and innovation.

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

1.11. Our base case therefore assumes that energy networks remain relatively passive with predominantly one-way energy flows. We assume 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 or developing new commercial arrangements. They may also delay investment in response to uncertainty.

1.12. This leads to a number of risks. It could limit the number of electric vehicles or heat pumps able to connect in certain areas or increase associated costs. Additional need for network reinforcement could delay or increase the costs of connecting renewable generation. Network companies failure to innovate could also hold back changes to household consumption behaviour (assuming no change in their statutory or licence obligations). Ultimately network companies could generate barriers to changes which would contribute to a low carbon energy sector.

Options – NIC and Innovation Allowance

1.13. The NIC 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 low carbon 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.

1.14. Business as usual may be the most cost effective way to meet future network needs in some cases. However, some new innovative practices and approaches may need to be trialed to gather further evidence. Innovation will reveal areas in which business as usual is not in the best interests of current and future consumers. Innovation trials may also reveal unanticipated benefits in other areas.

1.15. The NIC builds on the Low Carbon Networks (LCN) Fund developed as part of the fifth electricity distribution price control and is aimed at incentivising larger projects. It will provide partial project-specific funding during the price control to projects awarded funding 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. These overheads might deter submissions from smaller or earlier-stage projects. We are therefore introducing an Innovation Allowance, a limited amount of innovation funding direct to each company. This is similar to, and will replace, the existing Innovation Funding Incentive (IFI).[22] Stakeholders have indicated that the IFI is a valuable mechanism and should be retained. We discuss our reasons for implementing the innovation

[22] The IFI encourages innovation in energy networks by allowing 0.5 per cent 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.

stimulus package and stakeholder feedback to our consultation further in Chapter 5 of this document. Table 1 summarises the two options.

Table 1 - Options considered

Option	Project assessment	Funding proportion provided	Network company reward/penalty	Risk borne by:
NIC +	Project proposals submitted during the price control period	<90%	Reward based on project outcome	Shared
Innovation Allowance	Allowance agreed at start of price control	<90%	Allowance based on innovation strategy	Shared

Funding

1.16. The proposed funding mechanism for the NIC is based on that used for Second Tier of the LCN Fund. There will be two separate funds - one for electricity and one for gas. Eligible companies will be able to compete for partial funding in the annual competition. Partial funding would be provided for a limited number of projects demonstrating potential low carbon or environmental benefits to all customers. Projects will need to demonstrate that they would generate learning which could be applied across all network companies to the benefit of all GB customers. For this reason costs of providing the funds will be paid by all customers. More detailed eligibility criteria will be consulted on later in the development process. The NIC funding mechanism will allow costs of the projects to be socialised across all customers in the expectation that benefits would accrue to all network customers in GB.

1.17. Over the eight year price control period, the maximum amount of NIC that can be awarded over the eight year price control period is £240m for electricity transmission and £160m for gas. Over the same period, the total amount for the Innovation Allowance could range from around £180-360m.[23] This assumes that companies are set Innovation Allowance caps of between 0.5-1% of regulated revenue. The amount of Innovation Allowance we award to each company will depend on the quality of the innovation strategy they provide as part of their business plan. We will only provide the higher level of allowance where it is justified by a clear strategy and outputs. Both the NIC and IA are use it or lose it, and the level of NIC awarded in any year will depend on the quality of projects submitted. There is no requirement to award any or all of the NIC.

1.18. 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 help facilitate a low

[23] In constant prices.

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 outputs which capture the benefits of innovation.

1.19. For the electricity NIC £30m per year will be available for electricity transmission, around half the level of funding available through the LCN Fund for electricity distribution. The level of funding available for the gas NIC will be £20m per year, available for projects relating 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.

1.20. The Innovation Allowance will provide network companies with flexibility to fund innovative projects without having to go through the annual competition. This will help companies to react quickly to local challenges and aims to minimise overhead, while retaining an appropriate level of oversight.

1.21. We believe it is important to incentivise efficient expenditure on innovation. To this end, funding will be provided on a 'use it or lose it' basis. Companies will need to self-certify funding against specific criteria set by us. Furthermore, companies will need to demonstrate that each project helps further the objectives included in their Innovation Strategy. We would have the right to disallow any mis-spent monies.

1.22. The Innovation Allowance will be subject to a company-specific maximum cap, within the range of 0.5% of regulated revenue up to 1%. Total Innovation Allowance funding could amount therefore to a total of approximately £23-45m per annum for electricity transmission, gas distribution and gas transmission.[24]

Impacts on consumers

Cost to consumers

1.23. The maximum cost of the NIC would be £1.04 per electricity customer per year and £0.92 per gas customer per year.[25] Should the Authority award less funding than the maximum allowable amount in each year, the cost to customers will be smaller. The effect of the Innovation Allowance on customers could be between £0.28-0.57 per electricity customer per year and £0.67-1.33 per gas customer per year. Whilst the maximum impact on customers will fall within this range, the realised impact could be lower than this, should companies spend less than the maximum Innovation Allowance.[26] It should be noted that the Innovation Allowance cost per customer will depend on the amount of revenue allowed for each company in the RIIO-T1 and GD1 price controls.

[24] Based on 2007-8 and 2008-9 revenue. Actual levels of funding will depend on the level of allowed revenues under the RIIO price controls and the actual percentage of allowed revenue allowed under the Innovation Allowance for each company.
[25] All prices are expressed in 2009-10 values. Per customer calculations do not include IGT customers.
[26] 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.

1.24. 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 mean it is not possible to accurately quantify these potential costs. We consider orders of magnitude of potential base case costs below.

1.25. 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 requires 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 energy to be sourced from renewable sources. The government estimates this could require investment of the order of £100bn.[27]

1.26. Under the base case, there is a risk that companies do not undertake all the innovation required for them to understand their required role in the low carbon economy. This could lead to higher network investment requirements in order to ensure these targets are achieved. Alternatively, a shortage of low carbon network initiatives could act as a barrier to achieving these targets. The UK could incur a fine for not meeting its target as well as risking billions of pounds in carbon savings foregone.

1.27. This could lead to significant money being spent under future price controls (RIIO-T2 and GD2), without sufficient prerequisite knowledge and learning. Ill-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. This is a particular risk in some gas scenarios, in which investment must be recovered over a diminishing customer base.

1.28. There is also a risk that some network company investment in RIIO-T1 and GD1 (under the base case) may become redundant before the end of its useful life. Investment which fails to accommodate the requirements of a sustainable energy network may need to be replaced by additional, new investment. To put this risk into context we estimated[28] 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 £30 billion of new investment is needed by energy networks in GB over the next 10 years. Around £16-£18 billion of this investment relates to electricity transmission and gas networks.[29] If five per cent of this investment were to become redundant through the network companies failing to anticipate future needs, up to £900m would have been spent unnecessarily.

[27] 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

[28] 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

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

1.29. 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 through other funding mechanisms or from commercial or academic organisations. Participants in the innovation stimulus will be required to request project funding from the mechanism net of any external financial contributions. We anticipate that due to the high-profile nature of this funding and the existing commercial interest in initiatives such as smart grids, that significant funding should be available from external sources. This has already been demonstrated in the LCN Fund, where first year winning projects have over £40m of co-funding, equivalent to over 40 per cent of the total project costs.

1.30. Partial funding will be set at a maximum of 90 per cent of project costs, with the implementing company providing the remainder. We believe this proportion will incentivise sufficiently high-quality applications.

Consumer risk

1.31. 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 not 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.

1.32. The long-term risk to consumers is described above in the base case option. Insufficient network innovation or investment in network flexibility may limit network companies' ability to facilitate a low carbon energy future. This could significantly increase the overall cost of delivering government's energy policy objectives compared to the best-case scenario. Moreover, the base case risks unnecessary investments being made in the short term, which result in costly asset stranding in the future.

1.33. 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. 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 (whether a network or non-network company). Any benefits of the innovation being rolled across a network company or across other network companies would accrue to the consumer. Consumers therefore have potential to receive considerable 'return' on their investment.

1.34. We have also considered the risks and benefits to consumers of funding different types of innovation projects. Consumers' maximum value at risk is their contribution to project funding. Potential benefits to customers comprise benefits from learning and from avoided expenditure. These benefits may be scaled up across the network to all companies benefitting from project learning. Furthermore, projects of this nature could also enable achievement of carbon reduction targets.

1.35. Projects which fail to 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.

1.36. Consumer risk is mitigated by the time-limited nature of the innovation stimulus package. Once the incentives embedded within the RIIO framework are found to be sufficiently encouraging innovation the NIC will be removed.

1.37. As with the LCN Fund we will pay particular attention to how customers are directly impacted by any projects. This means that companies will have to set out how impacts such as whether their project will cause supply interruptions, have charging impacts, alongside a comprehensive plan of how they will engage with customers.

Impacts on competition

1.38. The NIC will provide network companies and appropriately licensed non-network companies with opportunities to bid for project funding. NIC funding is allocated on a competitive basis, giving all participants an opportunity to compete for the central funding on a transparent and consistent basis.

1.39. Projects competing under the NIC would be selected on the basis that they potentially benefit all network customers. Applicants will have to identify how they propose to disseminate the project learning and ensure maximum rollout. We consider it vital that the mechanism provides all network companies with equal opportunity to access and apply benefits identified through the NIC.

1.40. Network companies may choose not to submit applications for NIC funding. However, the size, purpose and significance of the NIC (as with the LCN Fund) have generated significant publicity and awareness. Once in operation, there would be significant reputational value to participating. This should incentivise network companies to submit proposals, thereby increasing the competition to gain funding and leading to higher quality project submissions. Making the innovation stimulus open to appropriately licensed non-network parties should also encourage competition for funds. Non-network companies are likely to bring new and innovative ideas, helping to drive innovation and incentivising network companies to seek out collaboration. Licensed non-network parties will also have an opportunity to submit their own projects.

1.41. We do not expect any significant impact on the innovation package on retail supply competition. Costs of the NIC 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. Under the Innovation Allowance, the level of associated allowed revenue will be company-specific. Some network companies may utilise this funding to a greater degree than others, potentially leading to regionally differentiated impacts, for example in gas distribution tariffs.

1.42. The NIC may provide an opportunity for retailers to partner with network companies to develop new retail or Energy Service Company-type services, which could provide more opportunities for retail competition.

Impacts on sustainable development

1.43. The objective of the innovation stimulus package is to enable the network companies to transition to and deliver a low carbon energy sector. For example, networks may need the following functionality:

- Accommodating a wide variety of renewable generation types, at different voltage levels and in a range of locations.
- Facilitating the injection of bio-methane into the gas network.
- Demand management functionality to accommodate and facilitate the connection of increase mounts of intermittent energy sources.
- Allowing for the injection of mixed gases which reduce the carbon intensity of gas usage.
- Commercial arrangements which introduce new constraint management or capacity management techniques.
- Potential uses for existing assets which facilitate other low-carbon technologies.
- Additional functionality to deal with different loads, two way load-management (for example charging and operating alternative fuel transport and potential use for demand management through electric vehicles).

1.44. The innovation package will help to prevent electricity and gas networks becoming a barrier to timely progress in achieving the low carbon targets.

Impacts on network companies

1.45. This innovation package is designed to provide innovation incentives to replicate those provided in a competitive environment. It aims to counter network company risk aversion by reducing network companies' exposure risks that research is unproductive or trials fail.

1.46. This IA focuses on the elements of the NIC on which we are consulting. Other elements of the innovation stimulus, yet to be decided, will further impact network companies. We will assess these impacts later in the process, concurrent with future consultations.

Impacts on licensed non-network companies

1.47. Licensed non-network companies which are awarded funding will have to share learning gained through projects funded by the NIC. Nonetheless, our proposals could provide non-network companies with some opportunities to sell innovative ideas, technologies, business practices or commercial arrangements. This will depend on the specific Intellectual Property requirements, details of which will be determined at a later date. Non-network companies could also indirectly receive funding for collaborative projects, either in partnership led by network companies or other non-network companies.

1.48. Further aspects of the innovation package, such as the potential introduction of non-network company innovation licences also affect these companies. However, these elements of the innovation package are yet to be confirmed.

Risks and unintended consequences

1.49. We identify below some key risks of introducing the innovation stimulus package. First, the mechanism may not provide sufficient incentives to generate proposals deemed of sufficient quality to receive funding. This outcome would be similar to our base case scenario, but with additional costs incurred in setting up the innovation stimulus package. This also risks network companies being a barrier to other innovation in the gas and electricity sectors. Given the level of interest in the LCN Fund in its first year, we do not think this risk is high. We received applications for £153m of LCN Fund Second Tier project funding, with a maximum amount available of £64m. Another risk is that material benefits resulting from projects funded through the innovation stimulus package do not meet expectations. The approval process for the innovation stimulus will be designed to mitigate this risk. We will design NIC and Innovation Allowance mechanisms to encourage efficient delivery and ensure value for customers. In relation to the Innovation Allowance we will require that spending helps to further objectives set out in companies' innovation strategies.

1.50. Some innovation projects will fail. Nonetheless, considerable learning can be derived from unsuccessful innovation. For example, learning from failed projects could help to avoid inefficient expenditure by other network companies. Given the benefits of learning, we believe the risks of costly project failure are acceptable given the potential for avoided costs compared to the base case.

1.51. We consider that there is limited risk of this mechanism providing network companies with unanticipated extraordinary returns. Funding is primarily provided for 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

1.52. We conclude that potential benefits of this mechanism considerably exceed the costs, taking into account the risks. The risks associated with network companies failing to innovate are significant and could result in the consumer bearing significant cost. Furthermore, energy networks could become barriers to achievement of low carbon targets. The costs of the innovation stimulus package born today are therefore justified by potential and avoiding much greater future costs.