

Consultation on strategy for the next transmission and gas distribution price controls - RIIO-T1 and GD1 Uncertainty mechanisms

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

Overview:

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

We are now consulting on the strategy for the two price control reviews. This supplementary annex to the main consultation documents sets out our proposed approach to uncertainty mechanisms. This document is aimed at those who want an in-depth understanding of our proposals. Stakeholders wanting a more accessible overview should refer to the main consultation documents.

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Associated Documents

Main consultation papers

- Consultation on strategy for the next transmission price control - RIIO-T1 Overview paper (159/10)
<http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/RIIOT1%20overview.pdf>
- Consultation on strategy for the next gas distribution price control - RIIO-GD1 Overview paper (160/10)
<http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/RIIOGD1%20overview.pdf>

Links to supplementary annexes

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

Links to other associated documents

- Handbook for implementing the RIIO model - Ofgem, October 2010
<http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf>
- RIIO: A new way to regulate energy networks: Final decision

<http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/Decision%20doc.pdf>

- Approach and timetable for TPCR5: decision document (21/10)
<http://www.ofgem.gov.uk/Networks/Trans/PriceControls/TPCR5/Documents1/TPCR5%20Approach%20and%20Timetable%20-%20Decision%20Document%20-%20FINAL.pdf>
- A glossary of terms for all the RIIO-T1 and GD1 documents is on our website
<http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/Glossary.pdf>

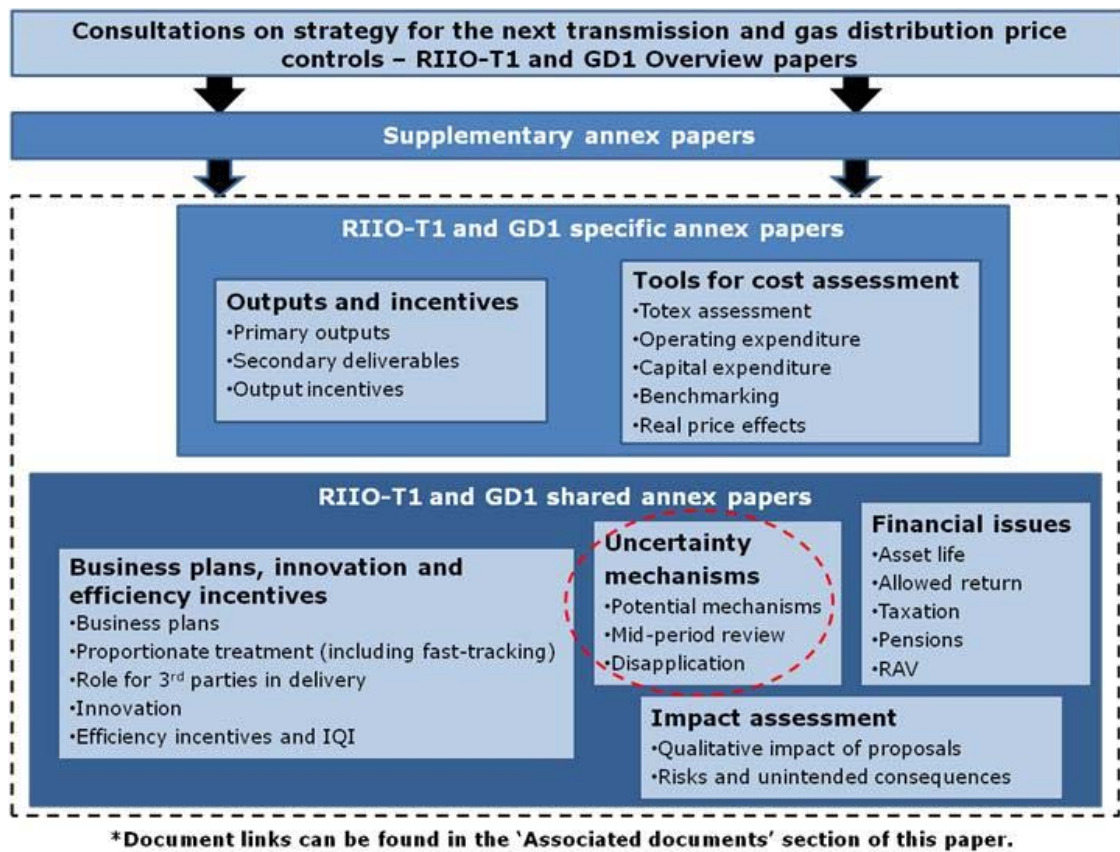
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1. Introduction

1.1. The next transmission and gas distribution price controls, RIIO-T1 and RIIO-GD1, will be the first to reflect the new RIIO model. We are now consulting on the strategy for the two price control reviews. This supplementary annex, to the main consultation documents, sets out our proposals for uncertainty mechanisms. This document is aimed at those who want an in-depth understanding of our proposals. Stakeholders wanting a more accessible overview should refer to the RIIO-T1 and GD1 Overview Papers. Figure 1.1 below provides a map of the documents published as part of the consultations.

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



1.2. This document covers managing uncertainty for both the RIIO-T1 and GD1 price controls. It provides more details on our approach than the summary in Chapter 6 of the 'Overview papers'.

1.3. The remainder of this document is structured as follows:

- Chapter 2 sets out our principles guiding the use of uncertainty mechanisms and the information that stakeholder will need to provide to include additional uncertainty mechanisms beyond those discussed in this document
- Chapter 3 outlines potential uncertainty mechanisms that could be applied to all sectors (gas distribution, gas transmission and electricity transmission)
- Chapter 4 sets out potential additional gas distribution uncertainty mechanisms
- Chapter 5 discusses potential additional electricity transmission uncertainty mechanisms
- Chapter 6 outlines potential additional gas transmission uncertainty mechanisms
- Chapter 7 sets out our proposed approach to the mid-period review of output requirements.

2. Proposed approach to managing uncertainty

Chapter Summary

This chapter sets out our overall approach to managing uncertainty in the RIIO-T1 and GD1 price controls. It sets out the principles guiding the use of uncertainty mechanisms and provides details on what stakeholders need to provide in order to suggest additional mechanisms.

Question 1: Are there any additional criteria that we should take into account to guide the appropriate use of uncertainty mechanisms?

Question 2: Do you agree with the information requirements that we set out to support the justification of additional uncertainty mechanisms? If not, what changes should we make to these requirements?

Overview

2.1. There are always uncertainties about the appropriate outputs companies should deliver and around their expenditure requirements over a price control period. These are greater under an eight-year price control than under a five-year one. The RIIO framework includes a number of elements to help deal with these uncertainties. It also places the onus on network companies to set out how they intend to manage risk through the period. The elements of the uncertainty framework which we propose to introduce for RIIO-T1 and GD1 are:

- uncertainty mechanisms
- a tightly-defined mid-period review of output requirements
- potential disapplication of the price control
- risk sharing through the efficiency incentive rate.

2.2. These elements will affect the cash flow risks of the business and therefore our views on the appropriate level of notional gearing and the allowed return.

2.3. This document sets out our proposed approach for the first three elements. The efficiency incentive rate (which is set by the IQI and discussed in the 'Supplementary Annex – Tools for cost assessment' and in the 'Supplementary Annex – Financial issues') determines the extent to which any variations between actual and forecast costs are shared between investors and consumers.

RIIO principles guiding the use of uncertainty mechanisms

2.4. Uncertainty mechanisms allow changes to a network company's allowed revenues to be made in light of what happens during the price control period. We use the term "uncertainty mechanisms" to cover a range of mechanisms and provisions for adjusting the maximum revenue that a network company is allowed to collect.

These include: volume drivers, revenue triggers, specific re-openers, and pass-through items.

2.5. Uncertainty mechanisms do not cover any arrangements that are included in a price control to encourage a network company to control its costs (efficiency incentives) or to deliver appropriate levels and timeliness of outputs (output incentives).

2.6. The overarching principle for uncertainty mechanisms from the RIIO handbook is as follows: *“We expect network companies to manage the uncertainty they face. The regulatory regime should not protect network companies against all forms of uncertainty. The use of uncertainty mechanisms should be limited to instances in which they will deliver value for money for existing and future consumers while also protecting the ability of networks to finance efficient delivery”*.¹

2.7. The RIIO framework calls for:

- a clear justification of the need for each uncertainty mechanism
- design of each mechanism to mitigate the potential downsides
- a coherent approach across uncertainty mechanisms.

2.8. The use of uncertainty mechanisms may benefit consumers in a number of different ways, but they may also bring downsides. The table below highlights potential justifications and drawbacks of uncertainty mechanisms, including those identified in the RIIO handbook.

Table 2.1: Potential justifications and drawbacks of uncertainty mechanisms

Potential justifications	Potential drawbacks
To lower the cost of capital	Can undermine incentives for efficiency
Reduce financeability concerns	Increase complexity of regime
Reduce consumers' exposure to forecasting uncertainty at price control review	May lead to volatility or unpredictability over prices
Strike fair balance of charge between current and future consumers	Risk of unintended consequences
Avoid resource costs of forecasting	Resource costs to develop mechanism

2.9. In line with the RIIO principles, the price controls will contain measures to manage charging volatility and predictability as we want to avoid unnecessary volatility in charges that adversely affects consumers. This will be achieved through the following:

¹ See page 96 of the RIIO handbook.

- Provision for re-profiling during the price control period: with Ofgem's consent the network company will be able to change the profile of revenue collection (this is discussed further in Chapter 2 of the 'Supplementary Annex – Business plans, innovation and efficiency incentives').
- The mechanisms will be designed with these considerations in mind: for example, we could introduce reopener windows (i.e. fixed periods when reopeners can be triggered) to improve predictability and reduce the volatility that is introduced by such mechanisms.

Potential uncertainty mechanisms

2.10. 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 (e.g. enabling a lower cost of capital). Ultimately it will be for Ofgem to decide whether to accept the companies' proposals and this is why we are setting out our early thoughts for consultation.

2.11. The circumstances in which uncertainty mechanisms are used, and the way that they are designed, matter for consumers. In Chapters 3-6 we set out our initial views on potential uncertainty mechanisms that may be in the interests of consumers and how they might be designed to mitigate potential downsides. We welcome views from respondents on the following with respect to the mechanisms outlined:

- Whether the need for a mechanism is sufficient to justify its inclusion within the price control, given potential downsides. Further information on the materiality of the issues presented would also help our decision making process.
- Whether the options proposed adequately address any downsides associated with the mechanisms? Are there other options that could better address these downsides?

The scope for additional uncertainty mechanisms

2.12. We acknowledge that the discussion in Chapters 3-6 may not have identified every potential mechanism which might be in the interests of consumers. We seek views as to whether there are other mechanisms that may be appropriate and what these might look like.

2.13. In order to justify the potential inclusion of another mechanism we will be seeking the supporting information as set out in Table 2.2 below.

Table 2.2: Information required for additional uncertainty mechanisms

Issue	Information required
What is the issue/risk that the proposed mechanism addresses?	This needs to set out the uncertainty identified and the grounds why an uncertainty mechanism might be appropriate.
What is the proposed mechanism?	A description of what the mechanism is and how it works. This needs to be detailed enough to allow potential implementation. If there is a materiality threshold, this would need to be set out either as a percentage of allowed revenue or allowed expenditure.
What are the justifications for the mechanism?	This needs to set out the benefits of the mechanism which might include those in Table 2.1 above. It is also necessary to set the materiality of these issues where possible, e.g. what is the expenditure exposure of the issue/risk?
What are the drawbacks from the proposed mechanism?	This needs to set out the drawbacks of the mechanism which might include those in Table 2.1 above. Again it is necessary to set out the materiality of these drawbacks where possible, e.g. the impact on charging volatility.
Can the drawbacks be reduced?	This would need to explain why the drawbacks cannot be mitigated through alternative mechanism designs, e.g. by using a driver instead of logging-up or cost pass-through.
On balance, does the mechanism deliver value for money while protecting the ability to finance efficient delivery?	Explanation of why the benefits of the mechanism outweigh the drawbacks.

2.14. We would expect the network companies to use these criteria when justifying any additional mechanisms that they identify in their business plans.

2.15. The network companies have already raised a number of additional areas that may require uncertainty mechanisms. Two of the areas raised are protection against real price effects (RPEs) and changes to legislation. Within the current price controls these issues are addressed as follows:

- An allowance is made ex ante for RPEs at the time of the price control. However, there are no adjustments for outturn input price inflation. This means that this is a risk for the network operators to manage.
- There is not a specific mechanism to provide protection against general changes in legislation. There are mechanisms providing protection in specific areas where there has been a risk identified at the time of the price control, e.g. the GDNs

currently have a reopener for changes from the introduction of the Traffic Management Act (TMA).

2.16. We set out below some of the issues that we would expect the network companies to address if they wanted to make the case for mechanisms to be introduced in these areas.

2.17. On RPEs we would expect the issues covered to include the following:

- Why the efficiency incentive rate does not provide enough protection against this risk.
- Why such a mechanism would be in the interests of consumers, e.g. why is the risk best passed to consumers rather than managed by the network companies?
- What type of mechanism is most appropriate? For example, a mechanistic revenue driver or reopener with the need to demonstrate that input costs had risen more than expected (subject to a materiality threshold).
- How does the proposed mechanism mitigate potential downsides? For example, charging volatility and diminished incentives to manage input price risk.

2.18. Chapter 3 of the 'Supplementary Annex – Tools for cost assessment' sets out our proposed approach to assessing RPEs.

2.19. In terms of any proposals for protection against legislative change we would expect the needs case to include the following points:

- How legislative change would be defined and what protection would be provided against such changes? For example, any changes to personal tax rates could have an impact on the costs of the network companies – would there be protection against this?
- What would be an appropriate materiality threshold be for such a mechanism?

2.20. In this context, we note that we are proposing a mid-period review of output requirements which would allow for the introduction of new outputs that are appropriate, including those as a result of legislation.

2.21. We list below the other issues raised by the companies in our initial discussions with them ahead of this consultation:

- Costs arising from wayleave compensation claims and diversionary work.
- The interactions between outturn RPI and the RPI assumed by Ofgem to calculate tax allowances.
- Pension Protection Fund levies (see chapter 6 of 'Supplementary Annex – Financial issues') for further details.
- Requirements for undergrounding (electricity transmission).
- Smart meters - additional emergency work and service relays (gas distribution).
- Changes to the NTS regime (gas distribution).

- Loss of meter work driver (gas distribution) – we propose to remove this mechanism but the GDNs have suggested retaining it. This is discussed further in Chapter 4.

3. Potential uncertainty mechanisms for all sectors

Chapter Summary

This chapter sets out the potential uncertainty mechanisms that we think might be appropriate for all sectors. It also summarises the current arrangements for disapplication of the price control where we are not proposing to make any policy changes.

Question 1: Do you think there should be a change to a 12-month average approach to RPI indexation of allowed revenues? If there were a change to a 12-month average approach, would there need to be any transitional adjustments?

Question 2: Do you have any views on the design of the reopener for the introduction of Traffic Management Act permitting schemes? In particular, is the timing of the reopener window appropriate and what approach should we adopt to set the materiality threshold before it can be triggered? Do you agree with our proposal that the reopener would only apply in gas distribution?

Question 3: Do you have any views on the design of the mechanism for changes in the requirements required by the Centre for the Protection of National Infrastructure? As above, is the timing of the reopener window appropriate and what approach should we adopt to set the materiality threshold before it can be triggered?

Question 4: Are there any additional mechanisms that we should be considering? If so, how should these be designed?

Question 5: Do you agree with our proposal to leave the disapplication arrangements unchanged?

Question 6: Do you have any views on the other mechanisms discussed in this chapter?

Potential individual mechanisms

RPI indexation of allowed revenues

3.1. At each price control review we set allowed revenues that can be recovered over the price control period. These allowed revenues are set in the prices of a base year during the review itself. For example, at GDPCR allowed revenues were set in 2005-06 prices. These allowed revenues are indexed by changes in the Retail Prices Index (RPI) to provide protection against economy-wide inflation. At present, this RPI adjustment is calculated using the changes in the average RPI over a six-month period in the previous financial year compared to the six-month average in the year prior to the base year. The RPI growth included within allowed revenues operates with a year's lag as prices must be set before RPI data for the year in question becomes available. For example, in gas distribution this means that allowed revenues for the financial year commencing April 2011 will incorporate the growth in RPI from July-December 2004 to July-December 2010.

3.2. Table 3.1 below sets out the six-month periods that are currently used.

Table 3.1 – RPI periods used to index allowed revenues

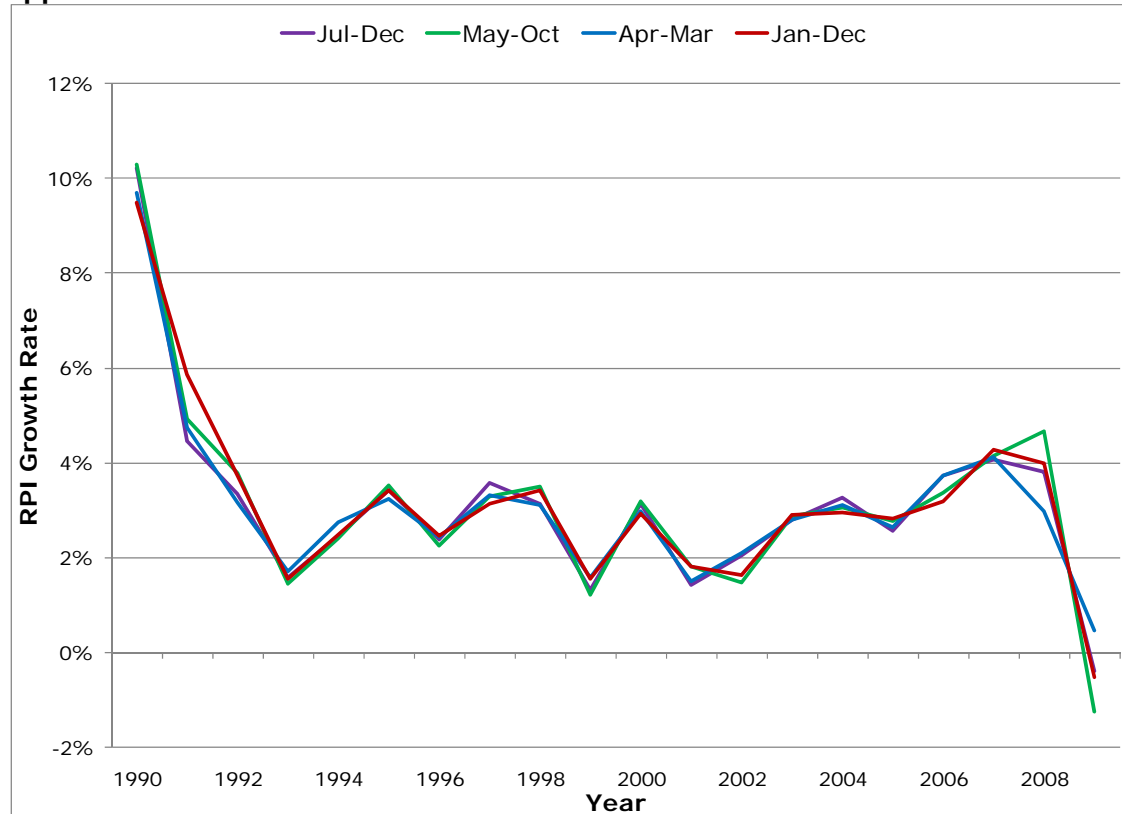
Sector	Licensees	RPI period
Gas distribution	All GDNs	July to December
Gas Transmission	National Grid Gas Plc	July to December
Electricity Transmission	Scottish Hydro-Electric Transmission Limited, SP Transmission Limited	July to December (May to October for TIRG)
	National Grid Company Plc	May to October

3.3. We have concerns that this six-month approach does not accurately capture annual RPI inflation and provide the intended protection against economy-wide inflation. We may be missing price spikes – both positive and negative – by not including six months of the year in the adjustment to revenues. Equally, any price spikes during the six months of data that we do consider will not be balanced out by the other six months of the year. This has the effect of making the growth in the six-month average more volatile than the growth in the 12-month average. We are considering a potential move to a 12-month period over which to take the average RPI for these reasons. The two 12-month periods we are considering are:

- January to December (the calendar year)
- April to March (the financial year).

3.4. There have been differences between the growth rates obtained from the six-month approaches currently in use and what would have occurred under the 12-month approaches outlined above. These differences between the approaches have become more acute in recent years as RPI inflation has been more volatile. This is illustrated in the Figure 3.1 below which compares the different approaches.

Figure 3.1 – Comparison of RPI growth from the six-month and 12-month approaches



Source: RPI (all items) data from the Office for National Statistics

3.5. While a move to a 12-month RPI average might give a better estimate of economy-wide inflation there are three main issues to consider:

- A switch to April to March would mean that the network operators would not have the full year's RPI data when they come to setting indicative charges in December of each year. This would mean that the operators would need to make forecasts for the final months of the year. This need to make forecasts would increase the risk of under- and over-recoveries of revenue and to compensate for this there may need to be a widening of the band before any penal interest rates apply to these deviations. We welcome views from stakeholders on the materiality of the RPI uncertainty for these remaining months under this approach compared to other uncertainties that must be taken into account when setting charges, e.g. demand.
- A move to January to December would further backdate the impact of RPI growth on allowed revenues. We welcome views on whether a more representative measure of annual inflation outweighs this backdating effect.
- There may be some arguments for transitional arrangements if there were any switch in the periods. For example, a switch to January to December would be backdating the RPI adjustment further and potentially double counting some earlier RPI inflation. We welcome views on whether any transitional arrangements would be appropriate if a change were made. It is not clear to us at this stage

that any would be required – under all the changes an annual rate of inflation would still be calculated and this will be different from the current six-month approaches but this in itself is not an argument to make a further one-off adjustment.

3.6. We welcome respondents' views on the three possible options in this area:

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

Pass through of Ofgem licence fees and business rates

3.7. Ofgem licence fees and business rates (providing that the network companies can demonstrate that they have taken reasonable actions to minimise the ratings revaluations) are currently pass-through items under the existing price controls. We propose a continuation of these policies for the following reasons:

- Allowing cost pass through avoids the resource costs of accurately forecasting these fees over the price control period. Business rates could be significantly impacted by revaluations expected in 2015.
- For business rates, the policy may contribute to providing a lower cost of capital by providing protection against revaluations.
- In the case of the licence fees, efficiency incentives are not undermined because the fees are outside the control of the network companies and they do not have any scope to manage this area of expenditure.
- Ofgem's licence fees are relatively small (around £9m for the GDNs and £21m for the TOs in 2009-10) and do not vary significantly year-on-year, meaning that pass-through has limited implications for volatility of charges.
- There are no resource costs to develop the mechanisms as they are already in place and simple to operate.

3.8. We have concerns that the business rates mechanism might not provide strong enough incentives on the network companies to protect the interests of consumers as part of ratings revaluations. We consider that any loss of efficiency is likely to be relatively small and we have not identified an alternative mechanism to address these concerns.

3.9. Further details of our approach in this area can be found in Chapter 5 of the 'Supplementary Annex – Financial Issues'.

Cost of debt indexation

3.10. Under the RIIO approach, we propose to index the cost of debt component of the allowed return to a long-term trailing average of bond yields. The revenue allowance would be adjusted mechanistically to reflect movement in the trailing average. The primary reason for including this mechanism is that it contributes to a

lower cost of capital (i.e. it removes the need for any “headroom”) by protecting network companies and consumers against variations in the market-wide cost of debt over the price control period. The main downsides of the mechanism are the increase in complexity of the regulatory regime and additional volatility to charges (albeit with a lag after the index data have become available). We think these downsides are outweighed by the benefits to consumers particularly at a time where there is significant uncertainty over the cost of debt over the horizon of the price controls.

3.11. Further details of the proposed mechanisms are set out in Chapter 3 of the ‘Supplementary Annex – Financial Issues’.

Pension deficit repair mechanism

3.12. Chapter 6 of the ‘Supplementary Annex – Financial Issues’ sets out the details of our proposed approach to pensions. As part of the proposals we have included a provision to adjust revenue allowances during the price control period in light of updated information on pension deficits. We propose that these adjustments are made every three years to coincide with the timing of the majority of triennial valuations. The purpose of the mechanism is to promote a fair balance of charges between existing and future consumers by not delaying any adjustments to allowed revenue until the next price control where the adjustments are part of Ofgem’s policy on pension deficit repair contributions.

Tax trigger

3.13. The tax methodology for RIIO-T1 and GD1 includes the introduction of a DPCR5-style tax trigger. A reopener is triggered in response to changes in tax including the tax treatment of opex, capex and repex. The purpose of the mechanism is to contribute to a lower cost of capital by protecting the network companies and consumers against variation in the tax regime over the price control period.

3.14. Chapter 5 of the ‘Supplementary Annex – Financial Issues’ sets out the details of our proposed approach to tax.

Reopener for the introduction of Traffic Management Act permitting schemes

3.15. We currently think that a reopener mechanism along the lines of the DPCR5 approach would be appropriate for managing the uncertainty associated with the introduction of permitting schemes under the Traffic Management Act (TMA). At present only a limited number of Highways Authorities (such as Kent County Council and a number of London Boroughs) have introduced permitting schemes and it is not known if or when other authorities will follow suit. In addition, the TMA legislation gives the Highway Authorities discretion over the level of permit fees that they can levy.

3.16. The purpose of the mechanism would be to contribute to a lower cost of capital by providing protection against the introduction of such permitting schemes and to reduce consumers' exposure to forecasting uncertainty at the time of the price control review. We think that the features of the DPCR5 mechanism mitigated the potential downsides as it incorporated reopener windows to reduce any charging volatility and it did not provide protection against the volume of street works activity which ensured that efficiency incentives were not diminished.

3.17. We set out below our current thinking on how we see the mechanism working for the upcoming price controls:

- At the price control we would only set an ex ante allowance for costs associated with permit schemes where the network operator can provide six months of cost data relating to those permit schemes to enable us to benchmark those costs against other operators including the electricity distribution companies.
- We propose that there is a reopener window halfway through the control which the network operators can trigger to cover the additional costs (over the full control period) associated with permitting schemes not covered at the price control. Again, we would require at least six months of cost data to enable us to benchmark costs. The reopener would only be triggered if the additional funding required as part of the reopener breached a pre-defined materiality threshold. We set out below further details on the timing of the window and the size of this materiality threshold.
- All other additional permit costs would be logged-up and assessed at the next price control unless the criteria for the reopener are triggered. The assessment of these costs would follow the same rules as the reopener.

3.18. We set out in table 3.2 below the protection that this reopener would bring.

Table 3.2: Protection provided by the TMA permitting reopener

Items protected against	Items not protected against
The timing of the introduction of permitting schemes	Volumes of activity, i.e. the number of works
The level of permit fees set by the relevant authorities	The proportion of notices/permits that are subject to penalties
Efficient one-off set up costs associated with permitting (over and above those that are funded at the time of the price control)	Any other changes to the traffic management regime, e.g. the level of any penalties, and the regimes for inspections and lane rentals
Additional costs arising from the introduction of permit conditions (e.g. the London Code of Practice)	
Efficient additional administration costs associated with permitting	

3.19. In assessing the additional costs arising from permit fees, our approach will be mechanistic. Our baseline allowance for each network company will be based on

forecasts of the number of works to be undertaken. When revising allowances we will only consider the proportion of notices that have been replaced by permits and the actual average cost of permits. This will be used to extrapolate forward assumptions for the remainder of the price control period. These differences will then feed back through our original volume and penalty rate assumptions to allow revised allowances to be calculated.

3.20. Our assessment of the efficiency of any one-off set-up costs, additional administration costs and the impact of any permit conditions will be more comparative in nature. We will benchmark these costs against those submitted by other network companies at the time of the reopener and those from other industries (e.g. electricity distribution) to ensure that the strong efficiency incentives are preserved on this expenditure.

3.21. We set out below our initial views on the timing of the reopener window and the materiality threshold:

- **Reopener window:** Our initial view is that this could be positioned halfway through the control. This would mean the network operators would make their submissions to us in July 2016, Ofgem would make a decision by the end of November 2016, the operators would notify suppliers of their charges in December 2016 and any changes to charges would be introduced in April 2017.
- **Materiality threshold:** In past price controls we have set materiality thresholds as a percentage of base revenue. We are considering a switch to threshold in terms of allowed expenditure as we think this may be a better measure of the risk being undertaken against which the materiality of any reopener should be assessed.

3.22. We welcome views from respondents on the appropriate timing of the reopener window and the approach that should be used to set the materiality threshold.

3.23. We recognise that this issue is most relevant for the GDNs who will be conducting significant street works activity which could be affected by the introduction of permitting schemes. Our initial view is that this mechanism would only apply in gas distribution but we seek views and evidence as to why it may be appropriate to extend the mechanism to transmission.

Adjustment provision for changes in requirements required by the Centre for the Protection of National Infrastructure (CPNI)

3.24. The Centre for Protection of National Infrastructure (CPNI) is currently reviewing key sites of the network operators to establish the needs case for enhancement of physical security provisions. This work has not yet developed to the point where DECC has required any of the network operators to carry out work.

3.25. We do not propose to set an ex ante allowance given this uncertainty over what the network operators will be required to deliver. Instead we propose to adopt the DPCR5 approach of a logging-up mechanism with a threshold for a reopener. This

approach contributes to a lower cost of capital by providing protection against the requirements of the CPNI.

3.26. We propose that this mechanism would operate with the same materiality threshold and reopener window as set out in the TMA reopener discussed above. We set out below the other details of how this mechanism would operate.

3.27. By default, expenditure in this area would be logged up and assessed at the next price control through comparative benchmarking between operators where possible. The network operators will be required to demonstrate that they have implemented the work efficiently for the relevant sites and that they have engaged effectively with all interested parties to ensure an appropriate balance between cost and risk, and that alternative solutions have been considered.

3.28. We would reopen the price control if a network operator can demonstrate at the reopener window that efficient costs in this area over the entire price control period would breach the materiality threshold. These costs would cease to be logged up if the reopener is triggered and any funding provided at the time of the reopener would act as an ex ante allowance for the remainder of the price control period.

3.29. We welcome views on these proposals and also further information on the likely scale of costs in this area. For example, if significant expenditure is expected in this area then a different mechanism which gives funding at an earlier date may be appropriate.

Disapplication of the price control

3.30. During a price control review, we seek to provide a licensee with a revenue stream that is expected to be sufficient to enable it to finance efficient delivery of its obligations.

3.31. Our statutory duties (including the financing duty) do not only apply at the time that a price control is set. If circumstances arise during the control period, which mean that the revenue allowance set at the price control review is insufficient to enable an efficiently managed company to finance its regulated activities, then we will consider requests from that company for amendments to its price control. If there is sufficient justification to do so, the price control will be re-opened.

3.32. We issued a guidance document in October 2009 setting out the arrangements for responding in the event that a network company experiences deteriorating financial health.² This document, when taken alongside our general financing duty, makes this duty more explicit by providing greater transparency and clarity on the types of circumstances under which a price control will be re-opened and the likely process it will involve. These circumstances include situations in which:

² <http://www.ofgem.gov.uk/Networks/Policy/Documents1/GUIDANCE%20DOCUMENT%20-%20FINAL%20OCT%2009.pdf>

- it can be demonstrated that adequate provision is not provided by the existing price control settlement
- the cause of financial distress was beyond the company's control
- re-opening the settlement could reasonably be expected to relieve the financial distress in a timely manner.

3.33. Our duty to secure that licensees are able to finance their obligations under the Gas Act and Electricity Act means that network companies are able to request that changes are made to the price control in the event that financeability is put at risk. This process can be seen as a way of managing the impact of highly significant, but unpredictable, events which could occur during the price control period. As such, seeking to invoke our general financing duty as a basis for re-opening a price control settlement will be expected to be rare. Consistent with our guidance on our arrangements for responding in the event that a network company experiences deteriorating financial health, our financing duty does not mean that Ofgem would provide regulatory relief to alleviate financial distress in all circumstances. We would consider why a licensee faced financial distress and to what extent they had acted reasonably and had financed and operated the relevant network efficiently. Network companies have an obligation to develop and maintain efficient and co-ordinated systems. Where financial distress arises despite the company operating in an economic and efficient manner, Ofgem would consider at its discretion what tools, if any, are appropriate to respond to that distress.

3.34. We do not propose any change in our current policy (disapplication licence condition plus guidance in the document on responding to financial distress) for the upcoming price controls.

4. Potential gas distribution uncertainty mechanisms

Chapter Summary

This chapter set out potential additional mechanisms applicable only to the GDNs.

Question 1: Do you have any views on our proposed approach to managing uncertainty around connections volumes?

Question 2: Do you agree with our proposal to remove the loss of meter work revenue driver? If not, why do you think retaining the mechanism is in the consumer interest?

Question 3: Are there any additional mechanisms that we should be considering? If so, how should these be designed?

Question 4: Do you agree with our proposal to leave the disapplication arrangements unchanged?

Question 5: Do you have any views on the other mechanisms discussed in this chapter?

Mains replacement incentive

4.1. The mains replacement programme (repex) is currently funded in GDPCR by a revenue driver. This driver provides a revenue allowance based on the volume of different mains that are replaced. This provides the GDNs with protection against volume risk (which is determined by the HSE) and contributes to a lower cost of capital. For RIIO-GD1, subject to HSE's agreement, we are considering moving towards funding the repex programme through a revenue driver in terms of risk removed in order to incentivise the appropriate behaviour by the GDNs. Such a mechanism would still provide protection against volume risk but would drive the GDNs towards getting best value for money in terms of the risk that is removed as part of the repex programme. If the GDNs are able to use alternative techniques that can deliver reductions in risk associated with iron mains at lower costs they would receive significant benefits under the cost incentives.

4.2. Chapter 9 of the 'Supplementary Annex – Outputs and incentives' sets out further details of our proposed approach.

Repex policy

4.3. The HSE is currently undertaking a review of the repex programme, which we are co-sponsoring. The HSE expect their consultants to report to them in March 2011. We are in discussions with HSE about companies developing a broader approach to network asset management and risk, which we see as a potential alternative to the current iron mains policy for determining investment associated with asset integrity once the companies have the requisite asset data. Decisions on the future of the current mains replacement programme reside, rightly, with the HSE and they are due to consider changes after the conclusion of the HSE review of the current programme. The pace of any change to the programme is likely to be driven

by whether there is a need for changes to legislation and how quickly it takes the companies to collect the asset data required for any alternative approach.

4.4. Such changes could have significant implications for the GDNs. For example, it could change the speed/amount of work that the GDNs are required to undertake, or it could allow the GDNs to take a wider view of risk beyond mains and services and allow them to meet the HSE's objectives through removing risk on other assets.

4.5. In light of this uncertainty over future repex policy, we propose the following two approaches:

- If the GDNs can demonstrate equivalence between the risk removed from mains replacement and other activities then these activities could be incorporated into the driver mechanism discussed in the section above, subject to agreement from the HSE. This would widen the scope of activities and potentially assets whereby the GDNs would be funded for the amount of risk removed.
- If the GDNs cannot demonstrate equivalence, the GDNs could trigger a reopener if they can make a case for rebalancing their outputs once they have more advanced asset management systems in place. As part of this reopener the GDNs would need to demonstrate that their revised plan delivered benefits to consumers compared to the existing outputs and baselines. Ofgem would also be able to trigger such a reopener if there is any material change arising from the review.

4.6. This issue is discussed in more detail in Chapter 7 of the 'Supplementary Annex – Outputs and incentives'.

Connections volumes

4.7. There is no protection within GDPCR for connections volumes. The price control allowances are based on an ex ante assumption of the level of connections activity. In our initial discussions with the GDNs, they have suggested that this policy should continue. We consider this approach to be appropriate providing that the connections volumes forecast by the GDNs can be well justified. In this regard we note that their initial forecast is that connection volumes will revert to historical levels following the significant drop off in recent years. We need further evidence to be convinced that this is an appropriate assumption on which to base allowed revenues.

4.8. If there is significant disagreement over the volume of connections then it may be appropriate to introduce a connections driver similar to that in the DPCR5 price control. This would provide protection against the volume of connections and contribute to a lower cost of capital.

Loss of meter work revenue driver

4.9. GDPCR includes a loss of meter work revenue driver to provide protection for the GDNs against loss of meter work and the impact this has on the costs of the

emergency service which is included within the price control. This mechanism was intended to contribute to a lower cost of capital. This mechanism was introduced as a transitional measure and we have concerns over its continued use because it may not give the right incentives to the GDNs. For example, the revenue driver may encourage the GDNs to lose meter work if it compensates them more than the impact of losing the meter work.

4.10. Chapter 5 of the 'Supplementary Annex – Tools for cost assessment' sets out our proposed approach to remove the revenue driver as part of RIIO-GD1 and to set an ex ante allowance in its place.

Reopener for change in the connection charging boundary

4.11. In Chapter 2 of the 'Supplementary Annex – Outputs and incentives' we set out our approach to bio-methane for RIIO-GD1. This includes a discussion of the connection and use of system arrangements. It sets out that the charging boundary has the effect of a deep connection boundary for entry customers. In the event that the connection charging boundary were changed (e.g. in response to a change in government policy to further promote bio-methane) then the scope of the price control would change and additional expenditure would need to be recovered through use of system charges. We have considered two options to achieve this:

- A logging up mechanism with an ex post efficiency review. If costs became material during the price control period then the price control could be reopened to avoid any financeability concerns and ensure a fair balance of charges between existing and future consumers.
- A pass-through mechanism with an added incentive similar to the distributed generation (DG) incentive in electricity distribution.

4.12. Both of these mechanisms would contribute to a lower cost of capital by providing protection against a change in regulatory policy that would alter the scope of the price controlled activities.

Other issues

4.13. There are a number of other issues, some of which have been raised in our initial discussions with the GDNs, and we set out our initial thoughts on these below:

- **Impact of smart meters:** We expect the GDNs to incorporate any expected impact from the rollout of smart meters into their business plans in so far as price controlled activities are affected. This would include any impact on the emergency service from increased callouts after the installation of smart meters.
- **Other meter related issues:** We expect any other meter related issues to be picked up by the separate price control on metering activities. This will include issues such as the meter provider of last resort obligation. RIIO-GD1 will only take into account changes to the metering price control and associated

obligations in so far as they affect the efficient expenditure of the distribution activity.

- **Sub-deducts:** Following the technical surveys of the sub-deduct networks that were undertaken by the GDNs, we have reviewed the survey data submitted to us. We are in discussion with interested parties on this issue and the outcome may have an impact on the RIIO-GD1 revenue allowances. We intend to consult separately on this specific issue through an industry open letter in early 2011. We are aiming to outline our approach on sub-deduct networks in the March RIIO-GD1 publication.

5. Potential gas transmission uncertainty mechanisms

Chapter Summary

This chapter sets out potential additional mechanisms applicable only to gas transmission.

Question 1: Do you agree that it is appropriate to continue to use an uncertainty mechanism for delivering entry and exit capacity in gas transmission, and do you agree that revenue drivers are the most appropriate uncertainty mechanism?

Question 2: If you think that a different mechanism could be more suitable, do you have any views on how such a mechanism could operate?

Question 3: Do you agree that our proposals will properly align the mechanism with the RIIO framework?

Question 4: Do you have any views on changes to the operation of revenue drivers if there are delays on the user side?

Question 5: Do you have any views on the process that would be used to set the value of revenue drivers at specific entry or exit points?

Revenue drivers for incremental entry and exit capacity

Issue and potential justification for the mechanism

5.1. We expect uncertainty about the level of expenditure requirements needed to deliver incremental entry and exit capacity on the gas transmission system during the eight-year price control period. There is uncertainty as to where and when the capacity will be needed and in terms of the costs of incremental capacity at different entry and exit points.

5.2. The current price control contains an uncertainty mechanism which adjusts revenue for the level of incremental entry and exit capacity. It would be possible to set a price control for gas transmission without such an uncertainty mechanism. Under this approach, we would need to include a forecast of the expenditure required to deliver the incremental entry and exit capacity triggered by users, over the price control period, as an input to the assessment of base revenue. We consider that an uncertainty mechanism through which the allowed revenue of National Grid Gas (NGG) is adjusted according to the requirements for incremental entry and exit capacity could bring the following benefits to consumers:

- contribution to lower requirement for cost of capital
- reduced consumer exposure to forecasting uncertainty at the price control review.

5.3. We propose to include an uncertainty mechanism as set out below. We welcome stakeholder views.

5.4. We believe that the benefits of such a mechanism are likely to outweigh the potential downsides. For instance, the risks to efficiency incentives are limited, in part, by the fact that the need for incremental capacity is triggered by actions on the user side. This is done via the auction process, as discussed in the 'Supplementary Annex - Outputs and incentives'. This, and the obligation to explore capacity substitution before undertaking new build projects, limits the risk of NGG building capacity unnecessarily simply to make profit from the additional revenue under the revenue driver. NGG's role is mainly about the timely and efficient delivery of the incremental capacity.

Detail of the proposed mechanism for consultation

5.5. We propose a number of changes to bring the existing arrangements for gas transmission entry and exit revenue drivers in line with the RIIO framework, particularly in relation to the upfront efficiency incentives. We are also consulting on:

- changes to the operation of revenue drivers if there are delays on the user side
- when the value of revenue drivers at specific entry or exit points would be set.

5.6. We discuss each of these points below.

Alignment of efficiency incentives with the RIIO framework

5.7. The efficiency incentives under the existing revenue drivers work through a combination of a five-year 'retention period' and a process of ex post efficiency reviews.

5.8. We propose to change the efficiency incentives under the revenue drivers so that variations in the expenditure incurred in building incremental capacity are treated in the same way as variations in other categories of gas network expenditure (e.g. other capital expenditure and buy-back costs). This is discussed in the 'Supplementary Annex - Outputs and incentives'.

5.9. Under the RIIO framework, we will set an upfront efficiency incentive rate. If the efficiency incentive rate is 40 per cent, the intention is that the company's investors retain £40 of profit (before tax) for each £100 that the company saves during the price control period, and that it bears £40 of each additional £100 that the company spends. The remainder is passed on to consumers. In the case of gas transmission revenue drivers, this would mean that investors are exposed to 40 per cent of any deviations between actual unit costs and the unit cost allowance on which the value of the revenue driver is based.

5.10. The risk-sharing under the efficiency incentive rate would not be conditional on an ex post efficiency review.

5.11. In line with our proposals for the efficiency incentive rate, the implementation would be made through annual revenue adjustments over the course of the price control period.

5.12. The design of the upfront efficiency incentives would determine how much revenue NGG as a whole is entitled to, in light of its actual expenditure on incremental capacity. We will also need to consider what this means for revenue flows from network users to NGG system operator (SO), and between NGG SO and NGG transmission operator (TO). These flows currently involve a five-year period before revenues arising from revenue drivers passes from the SO to the TO. This process does not seem necessary under the proposals above.

Operation of revenue drivers if there are delays on the user side

5.13. A user can request incremental entry capacity to be delivered by providing a financial commitment to NGG at the long-term auctions. Currently NGG progresses any reinforcement work to meet contractual delivery dates without any definite link to the progress being made by the user on delivering its project.

5.14. We have some concerns with the current regime in the case where a user's project is delayed or abandoned:

- If the user holds capacity at only that entry point it can default on credit provision to NGG without incurring penalties.
- Under the revenue driver, NGG receives revenue from the contractual delivery date even if no additional capacity is being made available.
- NGG may have already progressed national transmission system (NTS) work, potentially resulting in new assets that are no longer needed.

5.15. There are a number of proposals which aim to deal with the first two concerns. A Uniform Network Code modification proposal (UNC332) is proposing to remove the ability for a user to defer its capacity if it does not provide sufficient credit. As such it will continue to hold the capacity and be invoiced for it. The process for how to make an Income Adjustment Event (IAE) in NGG's gas transporter licence has been clarified, which would allow those shippers wishing to give notice of an IAE to reduce NGG's allowed revenues in light of project delays.

5.16. To deal with the third concern listed above, we propose to employ similar arrangements to those for incremental exit capacity. Where incremental exit capacity has been requested (by means of an ad-hoc application) and NTS reinforcement works are required, NGG notifies the user of a date by which certain demonstration information must be provided.

5.17. This demonstration information is data that NGG does not possess or has no control over and is needed by NGG to satisfy it that the user will be able to progress

its project.³ By providing this demonstration information users provide confidence to NGG that it is appropriate to proceed with NTS reinforcement work. If a user fails to provide the demonstration information by the relevant demonstration date NGG can delay any reinforcement work. NGG will also delay the demonstration date by a year and can delay the contractual delivery by up to a year which is the trigger for release of additional revenues to NGG. After three delays to the demonstration date the user ceases to hold the capacity and NGG recovers all costs incurred for work done up to the latest demonstration date.

When the value of revenue drivers would be set

5.18. Under existing arrangements, the value of the revenue driver for incremental capacity at an entry or exit point may be set in one of two ways:

- The values of revenue drivers for many entry and exit points are specified in the licence. These were reviewed at the last price control review, and include new entry points that were anticipated at the time of the review.
- For entry and exit points for which a revenue driver does not exist in the licence, we determine the value during the price control period if and when these are triggered.

5.19. We need to decide on the balance between these approaches.

5.20. We do not believe that it would be appropriate to rely exclusively on revenue drivers for which the value is determined at the price control review. Over an eight-year period it would be difficult to predict all the possible points that could be triggered. It could waste resources to set values for points that are not subsequently triggered. And cost forecasts made now could be inaccurate by the end of the period.

5.21. We see some advantages in an approach under which Ofgem has flexibility to determine revenue drivers when these are triggered, based on up-to-date information about costs. This would include the option to revise the value of revenue drivers that are already specified in the licence. We do not believe that such an approach would undermine incentives for NGG to deliver each capacity project efficiently. There might be some limited risks of dampening of incentives, but we expect the information benefits to outweigh these. We do have some practical concerns with that approach:

- the risks of an administrative burden to Ofgem and stakeholders
- the risks that the process delays the development of incremental capacity.

5.22. In light of the potential administrative burden, an alternative option would be as follows:

³ Specifically this is set out in NGG's publication 'NTS Exit Capacity Arrangements: Demonstration Information in respect of the Enduring Exit Period'. This notes that the demonstration information will be specified by NGG as including but not limited to the following (i) Two internal items from the list: full financial backing, design contracts, construction contracts, commencement of construction (ii) All the relevant external items from the list: planning consent under the Electricity Act, planning permission.

- Set or revise the values for revenue drivers for all or some of the entry and exit points at the price control review (and potential new entry or exit points that are anticipated).
- Decide whether these values would apply for the eight years of the price control or whether these could be re-determined if they are triggered after some specified date.
- Retain the flexibility to set values for other entry and exit points that are triggered as needed during the price control period (potentially based on a methodology agreed at the price control review).

5.23. We would need to adopt an approach that does not discriminate unfairly between users. For instance, if the revenue drivers for some existing entry points were set at the price control review and those for other existing entry points were left at their current values, this could potentially discriminate between users of different entry points. We would need objective reasons for any different treatment of existing entry and exit points at the price control review.

5.24. We invite views on these issues and on the appropriate split between setting the value of revenue drivers at the price control review and setting them during the period, when incremental capacity is triggered.

6. Potential electricity transmission uncertainty mechanisms

Chapter Summary

This chapter sets out potential additional mechanisms applicable only to the electricity transmission companies.

Question 1: Do you think that an uncertainty mechanism for electricity transmission connections expenditure is likely to be in consumers' interests?

Question 2: Do you have any views on future connections projects (number of projects, costs, etc.), and the uncertainty around these numbers?

Question 3: Do you agree that volume drivers are the preferred option, and do you have any views on how they should be designed?

Question 4: Are any other uncertainty mechanisms needed for connections expenditure? If so, how should these be designed?

Question 5: Do you have any views on the option of setting upfront revenue allowances, during the price control period, for qualifying high-cost connections projects?

Question 6: Do you have any views on the uncertainty mechanisms that we have proposed for wider reinforcement works?

Question 7: Do you have any views on the treatment of Inter-TSO costs?

Uncertainty mechanisms relating to network connections

6.1. Under RIIO-T1 one of the primary outputs is the timely delivery of new connections for generation and demand. We expect TOs to consider their potential requirements for new connections projects as part of their business plans. There is likely to be uncertainty about the expenditure that will be needed, over the price control period, to deliver this primary output.

6.2. This section considers potential uncertainty mechanisms that could be put in place at the time of the price control review, and that would provide some protection to TOs and consumers against this uncertainty.

6.3. There are interactions between the requirements for connections expenditure and the 'connect and manage' regime, the aim of which is to accelerate the connection of new generation to the transmission system. This regime allows generation plants to be connected to the transmission network upon completion of the local works, and before the completion of wider network reinforcement. Simply connecting new generators can create additional constraints costs if wider works are not addressed as well. We discuss this issue and set out our proposed approach towards wider works expenditure in the 'Supplementary Annex - Outputs and incentives'.

Justifying the introduction of an uncertainty mechanism

6.4. The RIIO handbook sets out the process for determining whether it is appropriate to introduce an uncertainty mechanism, and, if so, which type of mechanism.⁴ We have used these principles in considering the following options.

6.5. The introduction of an uncertainty mechanism is not the default option. First, we must be confident that the scale of the likely benefits for consumers is sufficient to justify introducing a mechanism. This is covered in more detail below. Second, we must be confident that the benefits of the mechanism exceed the potential downsides. These include the extra effort and cost in establishing and running a mechanism, the increasing complexity of the regulatory regime, and any counterproductive interactions with other areas of work.

Potential need for an uncertainty mechanism

6.6. We expect the number of new connections to the electricity transmission system to be significant over the course of the next price control period, but the exact level is difficult to predict. There can also be significant variation in the costs between different connections projects.

6.7. In terms of the need for an uncertainty mechanism, the central issue is the extent of the uncertainty facing the TOs and consumers; that is, the scale of the TOs' likely connections costs and the uncertainty over these costs.

6.8. If the cost of connections was relatively small, then even a high level of uncertainty around these costs might not justify the use of an uncertainty mechanism. Similarly, if forecasts of these costs were reasonably accurate, the costs could be covered effectively by the price control allowances, and an uncertainty mechanism would not be justified. The greater the uncertainty, the stronger the case for an uncertainty mechanism.

6.9. We will be asking the TOs to provide relevant information in their business plans. This will include forecasts (volumes and costs) for expected future connections projects, and indications of the uncertainty around these costs, where appropriate drawing upon historical information. We welcome views on these matters.

6.10. This information will allow us to judge the scale of the expenditure that the TOs might incur in relation to enabling works during the next price control period. The uncertainty in the TOs' estimates of total cost will depend upon the accuracy of the cost estimates for each type of connections project, the range of costs across different types of connections projects, and the uncertainty as to the numbers of connections projects.

⁴ See page 95 of the RIIO handbook

6.11. There is a potential interaction with another aspect of the price control. In DPCR5, we made changes to the boundary between the part of electricity distribution connections expenditure that is funded through the price control (and the RAV) and the part funded through direct charges to the connecting customer outside of the price control. These changes affected the type of volume driver needed for connections in DPCR5. We will need to consider similar issues as part of RIIO-T1 and this may affect the type of uncertainty mechanism needed for electricity transmission (and potentially the need for an uncertainty mechanism).

Potential role for volume drivers

6.12. If there is sufficient cost uncertainty, our starting point is that the use of volume drivers may be in consumers' interests. Under this approach, each TO's allowed revenue would be adjusted in line with a measure of the volume of the work required to deliver the connections primary output (e.g. the number of completed connections of different types or capacity). The scale of adjustment would be based on a unit cost allowance (e.g. pounds per completed connection). The mechanism would be agreed at the price control review.

6.13. The TOs will have to make the case for such mechanisms. If appropriate, the TOs' business plans would then include proposals for the revenue driver (including unit costs) for different types of connection.

6.14. As part of TPCR4, we included volume drivers (referred to as revenue drivers). These relate not only to local enabling works expenditure but also to some wider reinforcement expenditures that were, at the time, required before the connection was made. These arrangements were developed before the introduction of the 'connect and manage' regime. The volume drivers for TPCR4 would not be appropriate for RIIO-T1 because, following the introduction of 'connect and manage', there is no direct link between new network connections and the expenditure incurred on wider network reinforcement".

6.15. The most simple volume driver approach for RIIO-T1 would be a volume driver which varies allowed revenue according to the number of completed connections or some measure of the number of connections required.

6.16. Such a simple volume driver might not be suitable if, for example, there is a large variation in the costs between different scales or types of connections projects. In that case, rather than setting only one unit cost allowance, we could set a different unit cost allowance for each different type or scale of connections project. We would need to have a robust means of categorising connections into different types.

6.17. The costs of connections projects will be influenced by a number of factors, including the capacity of the connection, and the distance between the customer's site and the connection point on the transmission network. There seem several options as to how more sophisticated drivers could be developed. For example:

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- We could define a threshold capacity and if a connection project exceeded that threshold point then it would be assigned a higher unit cost allowance; all others would be assigned a lower unit cost allowance.
 - We could use the approach above, but with a threshold set by reference to distance rather than capacity.
 - We could split the distance and the capacity into ranges, and then set a unit cost allowance for each combination of distance and capacity ranges. The more ranges that are used, the more complex the mechanism would be and, potentially, the more effort would be needed to design and calibrate it. Using a large number of ranges could also increase the opportunities for connections project plans to be designed in order to maximise the TOs' profits at the expense of optimally meeting customers' needs.

6.18. The costs in some cases could also be affected by issues such as difficult terrain, and planning issues. These issues could potentially be taken into account through the structures above, but the complexity and resource costs of developing the mechanism could increase.

6.19. We welcome suggestions on how best to design volume drivers related to the connections primary output.

Other potential uncertainty mechanisms

6.20. At TPCR4, special arrangements were made for high-cost connections projects: *"SPTL and SHETL will be handling a large number of potential connection projects, most of which are relatively small, over the period. However, within the current pool of possible projects, there are a small number of projects which have much higher than average unit costs. We consider that the most appropriate way to deal with these exceptional cost schemes (should they proceed) is to exclude them from the revenue driver mechanisms. Otherwise, they could unduly influence the profit or loss for the companies under the scheme by distorting the unit cost allowances. We propose to exclude from the scope of the revenue driver scheme projects which cost more than £0.130 million per MW for SHETL and projects which cost more than £0.163 million per MW for SPTL. The companies will be prohibited through their licences from earning more than a reasonable rate of return on the efficient costs incurred on these excluded projects".*⁵

6.21. Under this approach, the Scottish TOs are able to recover the costs that they actually spend on the qualifying high-cost connections projects, plus a reasonable profit. The RIIO handbook identifies that such an approach *"raises substantial risks of damaging efficiency incentives: companies may have little incentive to control*

⁵ See page 63 of the TPCR4 Final proposals:
<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=191&refer=Networks/Trans/Archive/TPCR4/ConsultationDecisionsResponses>

their expenditure if they expect that the revenue they will be allowed will adjust to reflect the money that they actually spend".⁶

6.22. We would not consider such a provision to be in the interests of consumers, because of the risks of damaging efficiency incentives.

6.23. Our preference is that if similar concerns arise as part of the RIIO-T1 price control review, they could be addressed through the design of volume drivers, as discussed above (e.g. through different unit cost allowances for different types of projects) or through setting a specific upfront allowance for particular projects. If volume drivers were not considered sufficient, we would consider other potential uncertainty mechanisms that have less severe downsides than the arrangements from TPCR4 that were discussed above.

6.24. There might be cases in which the need for a particular project could be identified at the time of the price control review, and only the timing would be uncertain. In those cases it could be possible to specify, at the price control review, a trigger and an upfront allowance.

6.25. We could also make a provision to adjust allowed revenues, during the price control period, to set an upfront revenue allowance for qualifying high-cost connections projects. This would allow an up-to-date expenditure forecast to be made for the connections project, in light of its specific characteristics. This might provide companies and consumers with a significantly greater level of protection against uncertainty over the costs of connections than would be provided by reliance on volume drivers alone.

6.26. Such a provision would be limited to a small number of projects, could increase the administrative burden during the price control period, and would need a strong justification. If we were to adopt this approach, we would consider interactions with the proposed uncertainty mechanisms for electricity transmission wider works expenditure, as discussed in the 'Supplementary Annex - Outputs and incentives'. One of the options would involve a process to review funding requests from network companies during the price control period. The scope of projects qualifying for funding through this project could be defined to include a certain type of connections project.

6.27. We welcome views on these issues.

Uncertainty mechanisms for wider reinforcement works

6.28. Wider works in electricity transmission are discussed in more detail in the 'Supplementary Annex - Outputs and incentives'. That section is quite detailed and brings together various topics, including the use of secondary deliverables and a potential role for uncertainty mechanisms. It is useful to briefly set out the potential uncertainty mechanisms we have identified in that section, so that they can be

⁶ See page 102 of the RIIO handbook

considered here, alongside those for electricity transmission connections and gas transmission revenue drivers.

6.29. We have identified primary outputs for electricity transmission, as discussed in the 'Supplementary Annex - Outputs and incentives'. These primary outputs will not be sufficient to encourage transmission companies to take appropriate decisions about major network reinforcement projects. We will need to use secondary deliverables as part of the price control arrangements for electricity transmission wider works expenditure. We believe that boundary capacity should be used as the secondary deliverable insofar as this is possible.

6.30. It is likely that the scale of these costs will be significant, but there will be uncertainty, at the price control review, about the increases that might be necessary or appropriate at particular boundaries. In order to address this uncertainty the price control will need to incorporate flexibility. We have identified a number of options that may be used to bring this flexibility, as outlined below. The first three are uncertainty mechanisms, and our current thinking is that a combination of these three could bring significant benefits to consumers.

- Option (a): Potential trigger mechanisms through which the required capacity and associated revenue allowance would adjust mechanistically during the price control period according to pre-specified trigger criteria. The trigger criteria and additional revenue allowance would be determined at the price control review.
- Option (b): Provisions that would allow Ofgem to make within-period determinations to approve additional increases in boundary capability, and to provide associated upfront funding during the price control period.
- Option (c): Provisions under which the network company would have flexibility to choose what level of increase in boundary capability to deliver, and would earn additional revenue for each unit of additional capacity that was delivered (up to an agreed maximum). This volume driver would be set at the price control review. The additional funding would be conditional on any decisions that the company makes to increase boundary capability being compatible with a network planning policy that we have approved at the price control review.

6.31. A fourth option that we are considering is an incentive mechanism rather than an uncertainty mechanism. It has some attractive properties, but also presents difficulties that are discussed in more detail in the main section on wider works in electricity transmission, in the 'Supplementary Annex - Outputs and incentives'.

Inter-TSO costs

6.32. The Inter-TSO Compensation Mechanism is the means by which European TOs are paid for the use of their networks in cross-border electricity trades. Any costs TOs incur under this mechanism over the period of the price control are not known in advance. In TPCR4, the Inter-TSO costs were counted as pass-through items. We would consider using a pass-through arrangement in RIIO-T1, provided that the TOs can satisfy us that:

- this poses no risk to efficiency incentives (e.g. because any costs are completely outside the control of the TOs)
- that the TOs have proactively engaged with their European stakeholders to ensure inter-TSO costs are at appropriate levels and recovered in an appropriate way.

7. Mid-period review of output requirements

Chapter Summary

In this chapter we set out our proposals for how we expect the mid-period review of output requirements to operate over RIIO-T1 and GD1. This includes setting out the scope of the review and the process we would expect to follow, including the consultation(s) that will be conducted and the associated timescales.

Question 1: Do you agree with the scope of the mid-period review? If not, what changes to the scope are needed?

Question 2: Do you agree with the indicative process and timetable? If not, how could the process and timetable be improved?

Question 3: Do you have views on when we should make licence changes as a result of any actions taken at the mid-period review? If a threshold to make a licence change is seen as appropriate, what should this be?

Overview

7.1. The RIIO framework provides for an eight-year price control with provisions for a mid-period review of output requirements. The RIIO handbook identified that the review "*may be particularly important when the outputs-led framework is first implemented and in periods of significant change (for example, the transition to a low carbon economy in electricity)*".

7.2. This section considers three issues:

- the scope and use of the mid-period review of output requirements
- licence implications
- an indicative process and timetable for the review.

Scope and use of the mid-period review of output requirements

7.3. There is the potential for increased uncertainty under a longer price control period. As such, in addition to the uncertainty mechanisms we are proposing to include for RIIO-T1 and GD1, we will also conduct a mid-period review of output requirements. The review will identify whether changes are needed to the outputs that network companies are expected to deliver. If we consider that changes to outputs are necessary, we would not alter incentive mechanisms, the allowed return or other price control parameters other than as required to accommodate the change to outputs.

7.4. It is important that the scope of the mid-period review of output requirements is tightly defined to prevent the price control period collapsing to four years and undermining the benefits of the longer-term price control period. We propose to restrict the scope of the review to consider:

- material changes to existing outputs that can be justified by clear changes in Government policy (e.g. if Government policy on climate change changes, a higher or lower level of delivery or performance may be needed)
- introducing new outputs that may be needed to meet the needs of consumers and other network users.

7.5. Other than in these circumstances, the mid-period review would not be used to adjust the output measures or output incentives that were set at the price control review. See Chapter 1 of the 'Supplementary Annex - Outputs and incentives' for an overview of how other potential issues relating to outputs (e.g. administrative error) would be dealt with (if at all) if they arise during the price control period.

7.6. In addition, it is important to highlight that the mid-period review process will not be used to consider revenue adjustments that could be triggered throughout the process by other mechanisms that we have proposed. For example, if we were to adjust a network company's revenue for the implementation of ideas developed through the innovation stimulus (see Chapter 5 of the 'Supplementary Annex – Business plans, innovation and efficiency incentives' for further details) this would be done in a separate process from the mid-period review - even if the time periods coincide.

7.7. Should the outcome of the mid-period review be a change to an existing output, we would not apply any alterations retrospectively (e.g. a change in the incentive rate or to the output level).

7.8. We do not think it is possible to capture the consumer interest with a quantitative threshold (e.g. related to expenditure implications) as to whether a potential output change is sufficiently material. Nonetheless, in taking decisions at the mid-period review of output requirements, we will give weight to the potential risks and downsides of changes being considered. These include:

- the risk of reducing incentives to improve output performance over the price control period
- administrative costs of the review
- the risks of the review process and uncertainty caused by it distracting companies from delivery
- the risks of unintended consequences from a change in outputs
- creating network charging volatility.

7.9. If we decide, following consultation, that a change to output requirements is needed, we will review whether, and to what extent the revenue in the price control will need to change to reflect the impact of the change in outputs on expenditure requirements over the remainder of the price control period. Any change to allowed revenues would be limited to what can be justified by the change to outputs.

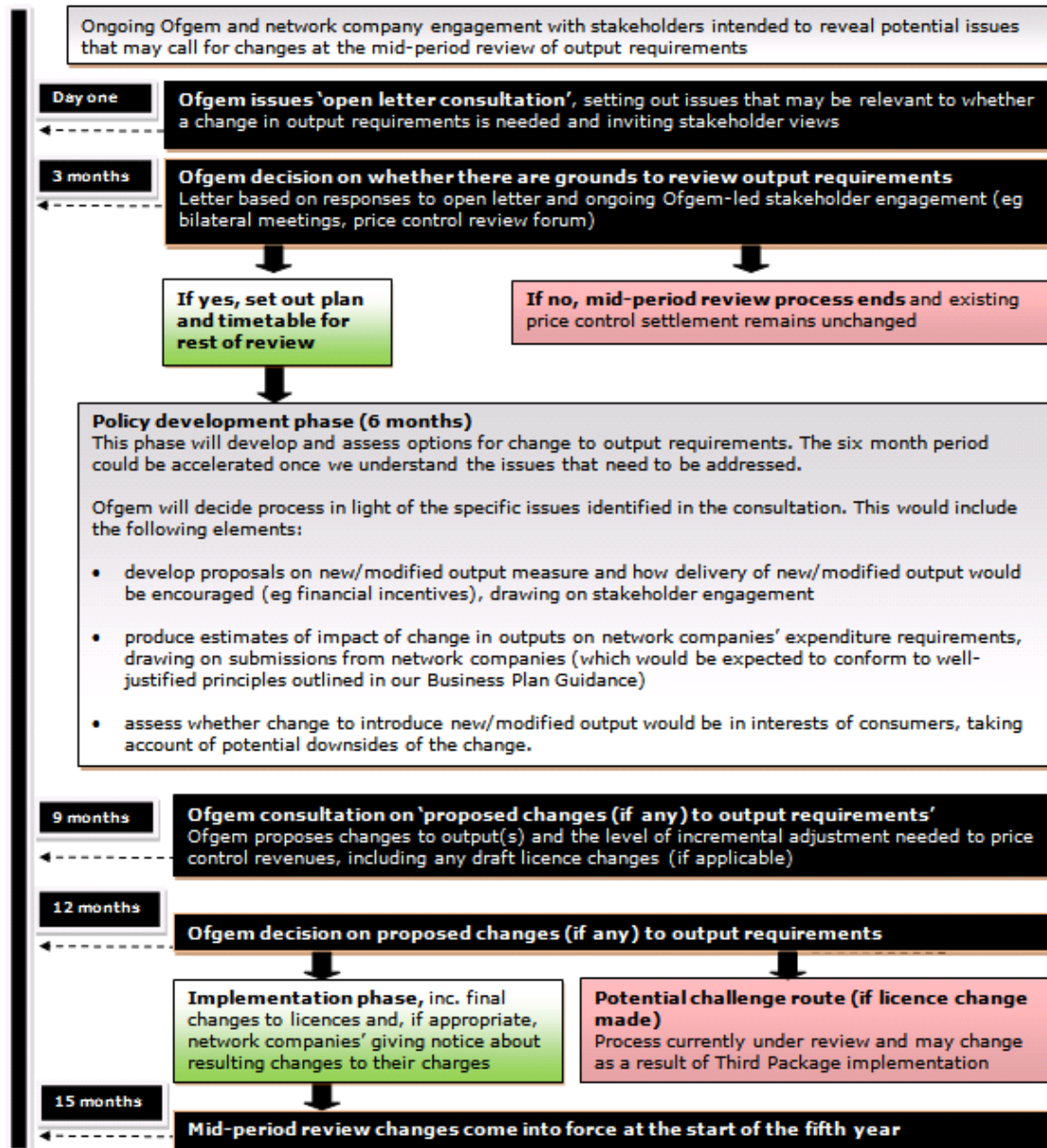
7.10. The potential adjustment to the revenue allowance mid-period review of output requirements would not be used to reduce charges to consumers where a company has delivered at lower costs than expected at the price control review or to increase

charges to consumers when costs have been higher than expected. Furthermore, the mid-period review is not an opportunity to penalise companies for non delivery – this would be done through the relevant output incentive mechanisms and enforcement action.

Indicative process for the review

7.11. Figure 7.1 below sets out an indicative process for the mid-period review of output requirements. We welcome comments on this.

Figure 7.1 Indicative timeline and approach for mid-period review of output requirements



7.12. Any changes to output requirements from the mid-period review would apply from April 2017 (the start of the fifth year of RIIO-T1 and GD1). For network companies to start collecting any adjustment to their allowed revenue from April 2017 they would need to feed any resulting revenue changes into their charging models after we have issued our decision on proposed output changes. Customers will need advance notification of changes to charges. For this reason, we propose to initiate the mid-period review of output requirements, with an 'open letter consultation', in January 2016.

7.13. If, following our 'open letter consultation', we find no grounds for making changes to outputs within the scope of the review, we would expect the process to end within three months (by April 2016) and allow the original RIIO-T1 and GD1 settlements to continue unchanged.⁷

7.14. Otherwise, we would continue with the review, and consult on proposed changes to output requirements in September 2016 (though we may still decide at this stage, after further assessment, that no changes are appropriate). The process we would follow in the six months leading to this consultation would depend on the issues at hand and would be set out when we decide to proceed with the review. Some core elements of the process are shown in the figure above. We would use stakeholder engagement and working groups as appropriate. We may decide it is best for network companies to lead this engagement and to come back to us with proposals on appropriate changes to outputs.

7.15. Figure 7.1 highlights that as part of the mid-period review process network companies (and potentially third parties) would be expected to have the opportunity to challenge the merits of our decision. This is discussed further below. In addition to this, any decisions would remain susceptible to challenge by way of Judicial Review.

Licence implications

7.16. The arrangements for the mid-period review of output requirements will be included in the licence changes made at the conclusion of the RIIO-T1 and GD1 reviews. Where a licence change is made as part of the mid-period review process, network companies (and potentially third parties) would potentially be able to challenge our decision before the Competition Commission.

7.17. The appropriate arrangements, including the role of third parties, will depend on the outcome of DECC's current work on introducing, by March 2011, a new process for appealing licence modifications as part of implementing the EU Third Package.⁸ We will seek to provide an update on this issue as part of our March 2011 'strategy decision document' in the event that the new process has been settled by that time. The new process may well have implications for our guidance document 'A

⁷ We are seeking to provide as much certainty as possible on the timing of the mid-year review. We hope the timings provided will prove to be broadly accurate but, at this stage, they are necessarily indicative.

⁸ For more information on DECC's work see-

http://www.decc.gov.uk/en/content/cms/consultations/imp_eu_third/imp_eu_third.aspx

Guide to Price Control Modification References to the Competition Commission - Licensee and Third Party Triggered References'.⁹

7.18. We would welcome views on what arrangements could apply to provide network companies (and potentially third parties) with a trigger to seek recourse if they disagreed with decisions made by the Authority at the mid-period review. We outline two options below:

1. The licence agreed at the price control review could be drafted so that any change that Ofgem wishes to make at the mid-period would require a licence modification. Under our existing powers, if network companies reject the licence modification or third parties believe that the modification operates against the public interest then we can make a referral to the Competition Commission concerning the proposed licence modification. Where appropriate, we would seek to limit the scope of the reference to only the issues covered by the mid-period review so that it did not extend to other elements of the price control. If the process changes, as a result of Third Package implementation, we would still expect a change to a network company's licence to act a trigger for recourse to the Competition Commission. However, we cannot be certain of other elements of the process at this stage.
2. The licence agreed at the price control review could be drafted to allow Ofgem to change the outputs, and to adjust allowed revenue accordingly, at the mid-period review without a modification of the licence, if appropriate, provided this did not breach a specified threshold (e.g. based on the scale of impact on expenditure). All other changes would be subject to licence modification and a potential Competition Commission reference as above.

7.19. The second option is designed to allow for a more proportionate process in cases where the potential impact on expenditure requirements is relatively small. We would welcome views on these options. If a threshold is seen as desirable, we welcome views on what level would be appropriate. The threshold could be similar to that used for other mechanisms such as TMA and CPNI discussed in Chapter 3. We would seek to confirm the level of any threshold as part of our 'Strategy decision document' in March 2011.

⁹<http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/final%20mod%20guidance.pdf>

Appendix 1 - Consultation questions

CHAPTER: One

No questions

CHAPTER: Two

Question 1: Are there any additional criteria that we should take into account to guide the appropriate use of uncertainty mechanisms?

Question 2: Do you agree with the information requirements that we set out to support the justification of additional uncertainty mechanisms? If not, what changes should we make to these requirements?

CHAPTER: Three

Question 1: Do you think there should be a change to a 12-month average approach to RPI indexation of allowed revenues? If there were a change to a 12-month average approach, would there need to be any transitional adjustments?

Question 2: Do you have any views on the design of the reopener for the introduction of Traffic Management Act permitting schemes? In particular, is the timing of the reopener window appropriate and what approach should we adopt to set the materiality threshold before it can be triggered? Do you agree with our proposal that the reopener would only apply in gas distribution?

Question 3: Do you have any views on the design of the mechanism for changes in the requirements required by the Centre for the Protection of National Infrastructure? As above, is the timing of the reopener window appropriate and what approach should we adopt to set the materiality threshold before it can be triggered?

Question 4: Are there any additional mechanisms that we should be considering? If so, how should these be designed?

Question 5: Do you agree with our proposal to leave the disapplication arrangements unchanged?

Question 6: Do you have any views on the other mechanisms discussed in this chapter?

CHAPTER: Four

Question 1: Do you have any views on our proposed approach to managing uncertainty around connections volumes?

Question 2: Do you agree with our proposal to remove the loss of meter work revenue driver? If not, why do you think retaining the mechanism is in the consumer interest?

Question 3: Are there any additional mechanisms that we should be considering? If so, how should these be designed?

Question 4: Do you agree with our proposal to leave the disapplication arrangements unchanged?

Question 5: Do you have any views on the other mechanisms discussed in this chapter?

CHAPTER: Five

Question 1: Do you agree that it is appropriate to continue to use an uncertainty mechanism for delivering entry and exit capacity in gas transmission, and do you agree that revenue drivers are the most appropriate uncertainty mechanism?

Question 2: If you think that a different mechanism could be more suitable, do you have any views on how such a mechanism could operate?

Question 3: Do you agree that our proposals will properly align the mechanism with the RIIO framework?

Question 4: Do you have any views on changes to the operation of revenue drivers if there are delays on the user side?

Question 5: Do you have any views on the process that would be used to set the value of revenue drivers at specific entry or exit points?

CHAPTER: Six

Question 1: Do you think that an uncertainty mechanism for electricity transmission connections expenditure is likely to be in consumers' interests?

Question 2: Do you have any views on future connections projects (number of projects, costs, etc.), and the uncertainty around these numbers?

Question 3: Do you agree that volume drivers are the preferred option, and do you have any views on how they should be designed?

Question 4: Are any other uncertainty mechanisms needed for connections expenditure? If so, how should these be designed?

Question 5: Do you have any views on the option of setting upfront revenue allowances, during the price control period, for qualifying high-cost connections projects?

Question 6: Do you have any views on the uncertainty mechanisms that we have proposed for wider reinforcement works?

Question 7: Do you have any views on the treatment of Inter-TSO costs?

CHAPTER: Seven

Question 1: Do you agree with the scope of the mid-period review? If not, what changes to the scope are needed?

Question 2: Do you agree with the indicative process and timetable? If not, how could the process and timetable be improved?

Question 3: Do you have views on when we should make licence changes as a result of any actions taken at the mid-period review? If a threshold to make a licence change is seen as appropriate, what should this be?