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Strategy decision for the RIIO-ED1 electricity distribution price control

Financial issues

Supplementary annex to RIIO-ED1 overview paper

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Overview:

RIIO-ED1 will 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 to promote timely investment in the networks.

Having consulted on our strategy for RIIO-ED1 in September 2012 this supplementary annex, to the main decision document, sets out our decisions on financial issues. This document is aimed at those seeking a detailed understanding of our proposals. Stakeholders wanting a more accessible overview should refer to the main decision documents.

Associated documents

Strategy decision for RIIO-ED1 - Overview
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1DecOverview.pdf

Links to supplementary annexes

- Strategy decision for RIIO-ED1 - Outputs, incentives and innovation
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1DecOutputsIncentives.pdf
- Strategy decision for RIIO-ED1 - Business plans and proportionate treatment
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1DecBusinessPlans.pdf
- Strategy decision for RIIO-ED1 - Uncertainty mechanisms
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1DecUncertaintyMechanisms.pdf
- Strategy decision for RIIO-ED1 - Financial issues
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1DecFinancialIssues.pdf
- Strategy decision for RIIO-ED1 - Tools for cost assessment
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1DecCostAssessment.pdf
- Strategy decision for RIIO-ED1 – Reliability and safety
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1DecReliabilitySafety.pdf
- RIIO-ED1 Glossary of terms
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1SConGlossary.pdf

Links to other associated documents

- Strategy consultation for RIIO-ED1 - Overview
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1SConOverview.pdf
- Open letter consultation on the way forward for RIIO-ED1
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1LaunchOpenLetter.pdf
- Handbook for implementing the RIIO model
http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf
- Electricity Distribution Price Control Review 5 (DPCR5) Final Proposals
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR5/Documents1/FP_1_Core%20document%20SS%20FINAL.pdf

Links to financial issues associated documents

- The Weighted Average Cost of Capital for Ofgem's Future Price Control (March 2011 update) – Report by Europe Economics
http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/GD1WACC.pdf
- Decision letter on the regulatory asset lives for electricity distribution assets
http://www.ofgem.gov.uk/Networks/Policy/Documents1/assetlivedecision.pdf
- Handbook for implementing the RIIO model - Ofgem, October 2010
http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf
- Cost of debt index model for RIIO-T1 and GD1
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/costofdebtT.xls
- Cost of capital study for the RIIO-T1 and GD1 price controls – Report by FTI Consulting
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/RIIO%20T1%20Cost%20of%20capital%20study%20for%20RIIO%20T1%20and%20GD1.pdf

- Providing financeability in a future regulatory framework – paper by CEPA
  http://www.ofgem.gov.uk/Networks/rpix20/ConsultReports/Documents1/Final%20CEPA%20RPI-X@20%20Financeability%20Report%20May%202010.pdf
- The Weighted Average Cost of Capital for Ofgem's Future Price Control' – Report by Europe Economics on behalf of Ofgem
  http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/Europe%20Economics%20Final%20Report%20-%20011210.pdf
- RIIO Reviews Financeability Study (Imrecon working with ECA)
  http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/9_RIIO_Financeability_Study_dec12.pdf

Contents

1. Introduction

1.1. The next electricity distribution price control, RIIO-ED1, will reflect the RIIO model. In September 2012, we consulted on our strategy for the price control review. The overview document[1] of our initial strategy for RIIO-ED1 was accompanied by a supplementary annex which set out our proposed approach to financial issues[2].

1.2. Following consideration of responses received to the strategy consultation for the RIIO-ED1 electricity distribution price control (September strategy consultation), this document sets out our decision on financial issues. This document is aimed at those seeking a detailed understanding of our decision. Stakeholders wanting a more accessible overview should refer to the strategy decision overview.

1.3. The RIIO-ED1 price control will be set for an eight-year period from 1 April 2015 to 31 March 2023.

1.4. This document sets out the decisions that we have made in respect of financial issues, and in particular, our approach to financeability. We remain committed to ensuring efficient companies are able to finance their businesses. We have listened to the views expressed by the companies and their investors in response to our September strategy consultation. We are establishing a strong financial package which will allow efficient companies to finance their activities using equity and debt. It will also ensure the costs of investment are spread appropriately across existing and future consumers. Specifically:

- Asset lives – New electricity assets will be depreciated over 45 years. Existing electricity assets will continue to be depreciated over current lives. This policy will apply to electricity distribution from 2015, the beginning of the next distribution price control period
- Capitalisation and depreciation – We will add a fixed percentage of totex expenditure to the Regulatory Asset Value (RAV) and apply straight line depreciation to electricity distribution assets
- Cost of equity – We are setting an indicative range of 6.0–7.2 per cent which we expect to inform the business plans of the DNOs
- Cost of debt – We are providing greater certainty by using an index for determining the allowed cost of debt. We will use a ten-year simple trailing average index based on the iBoxx non financials 10+ maturity indices with credit ratings of broad A and broad BBB
- Transitional arrangements – Any company that considers transitional arrangements are appropriate will have the opportunity to present its arguments and propose suitable arrangements in its well-justified business plan.

[1] Consultation on strategy for the next electricity distribution price control - RIIO-ED1 Overview paper http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1SConOverview.pdf
[2] Consultation on strategy for the next electricity distribution price control - RIIO-ED1 Financial Issues paper http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1SConFinancialIssues.pdf

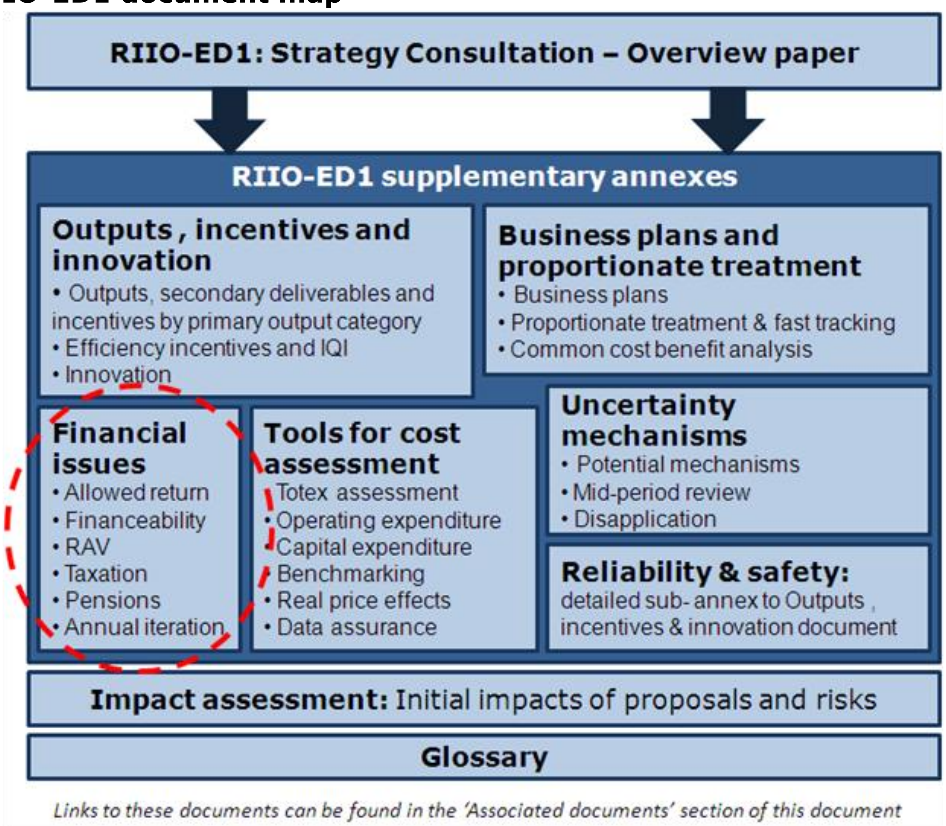
1.5. We also provide our decisions on issues relating to tax, pensions and RAV.

1.6. Additional and more detailed material is provided in the appendices to this document:

- Appendix 1 provides more detail on responses received to the questions we consulted upon in September 2012
- Appendices 2-8 provide more detailed explanation of the methodologies we will be using.

1.7. Figure 1.1 below provides a map of the RIIO-ED1 documents published as part of the suite of strategy decision documents.

Figure 1.1 RIIO-ED1 document map



2. Allowed return

Chapter Summary

This chapter outlines our approach for setting the allowed return for RIIO-ED1. In particular, it sets out our approach for setting notional gearing, annually updating the cost of debt assumption in RIIO-ED1, and an initial range for the cost of equity.

Summary of decisions

2.1. Our decision are summarised below:

- To set notional gearing based on the information in the companies' business plans. We expect this level of gearing to be consistent with the cash flow risk each company assesses to be inherent in the package. We expect network companies to assess the overall risk of their business plans and to make realistic and well justified proposals for notional gearing if they wish to be fast-tracked.
- To set the cost of debt assumption in the allowed return based on a 10-year simple trailing average index (with provision for companies to justify modifications in exceptional circumstances). To update this allowance annually during the price control. To use an average of the iBoxx GBP Non-Financials indices of 10+ years maturity with credit ratings of broad A and broad BBB.To deflate the indices by 10-year breakeven inflation data published by the Bank of England.
- To make no adjustments in the index for debt issuance fees, liquidity management fees, new issue premia or the inflation risk premium.
- To set an indicative range for the cost of equity of 6.0-7.2 per cent (post-tax real).
- To set an ex ante allowance for the cost of issuing equity, with an annual ex post true-up.

2.2. The remainder of this chapter sets out the rationale for our above decisions and summarises the views of respondents. Throughout this chapter we make reference to a number of consultancy studies that we have published as part of the RIIO-T1 and GD1 review process that we consider are relevant in the consideration of issues in RIIO-ED1. Links to these documents are shown in the list of associated documents on page 2.

Context

2.3. Regulators have typically made an allowance for the efficient financing of the companies they regulate. It is set by calculating a return on the value of the capital employed in the business (the regulatory asset value or RAV) that is at least equal to the notional company's estimated cost of capital[3]. As part of the RIIO-ED1 price control we are

[3] We set the allowed return such that a notional efficient company is able to raise the necessary level of capital to finance its investment programme and, therefore, deliver its required regulatory outputs.

considering the main factors affecting the cost of capital and the issues surrounding the required calculations.

2.4. We are committed to ensuring that efficient companies are able to finance themselves through both debt and equity. Consistent with this, the RIIO framework sets out four key principles regarding our approach for setting the allowed return:

- We will continue to take a real weighted average cost of capital (WACC) based approach to setting the allowed return
- The cost of debt component of the WACC will be based on a long-term trailing average and updated mechanistically each year
- The cost of equity component of the WACC will continue to be set by reference to the capital asset pricing model (CAPM), sense-checked by other approaches and evidence
- We will take a principles-based approach to the calculation of notional gearing, with the level of notional equity reflecting the company's risk exposure and potentially varying within and between sectors.

2.5. We set out below further detail on our decisions with regard to the allowed return for RIIO-ED1. The decisions are intended to provide clarity for the DNOs to assess the overall risk of their business plans and allow them to make realistic assessments of the cost of equity and notional gearing if they wish to be fast-tracked.

Notional gearing

Our decision

2.6. Our view is that it is too early to set an appropriate range for notional gearing at this stage, as we have yet to receive the companies' business plans. We will assess companies' business plans taking into account a number of factors as set out below. We expect network companies to assess the overall risk of their business plans and to make realistic and well justified proposals for notional gearing if they wish to be fast-tracked.

Summary of consultation proposals

2.7. In the strategy consultation document we set out that we will adopt a principles-based and iterative approach to notional gearing, as shown in figure 2.1, and that different gearing levels may be set within sectors if there are significant differences in cash flow risk.

Summary of responses

2.8. DNOs generally agreed that the level for notional gearing should reflect the company's cash flow risk exposure and that the appropriate level of gearing depends on the credit rating metrics that result to ensure that the businesses are financeable.

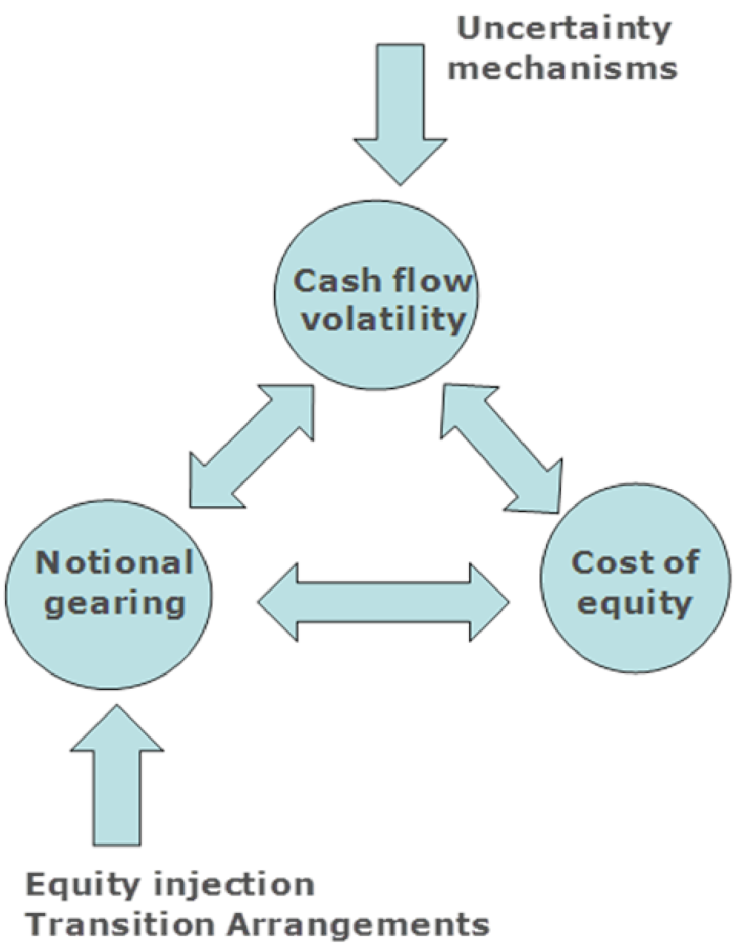
2.9. One DNO indicated an expectation for the notional gearing level to be lower than that assumed for DPCR5. They argued that lower gearing consistent with an A credit rating is necessary to mitigate concerns, should there be another period of stress within the capital markets, as refinancing may only be available to companies with higher investment grade credit ratings.

2.10. One supplier stated concerns about the approach to setting notional gearing. They agreed that risk exposure and credit metrics should be considered, however they also believed wider factors taken into consideration by credit agencies should also be considered as these factors are likely to enable a notionally efficient regulated entity to support a higher level of gearing than a typical company with an investment grade rating.

Reasons for our decision

2.11. Figure 2.1 sets out the issues that are at play when setting notional gearing – namely cashflow volatility (as affected by capex spend, incentives and uncertainty mechanisms), the companies' business plans (including proposed transitional arrangements and notional equity injections), and the cost of equity.

Figure 2.1: Methodology for setting notional gearing



2.12. It is now up to the DNOs to assess the overall risk of their business plans and to make realistic bids for notional gearing if they wish to be fast-tracked. Based on the information we have seen to date we do not see any compelling reasons for any reduction in notional gearing levels from those used in DPCR5.

2.13. Ultimately, the decision on notional gearing will be taken following financial modelling of expected cash flows (tested under a range of reasonable scenarios) with reference to what we consider an appropriate notional gearing range for regulated network companies given the cash flow risk they face. This will include Return on Regulatory Equity (RoRE) analysis.

Cost of debt

Our decision

2.14. Our decision is as follows:

- to set the cost of debt assumption in the WACC based on a 10-year simple trailing average index (with provision for companies to justify alternatives in exceptional circumstances)
- to update this assumption annually during the price control
- to use an average of the iBoxx GBP Non-Financials indices of 10+ years maturity, with credit ratings of broad A and broad BBB
- to deflate the indices by 10-year breakeven inflation data published by the Bank of England
- to make no adjustments in the index for debt issuance fees, liquidity management fees, new issue premium or the inflation risk premium.

2.15. However, if a company can show in its business plan that the 10-year simple average index is not appropriate for its circumstances, it can propose modifications. We will consider the merits of such a proposal when evaluating the business plan and would need to satisfy ourselves that the adoption of a different approach is both robust and justified.

Summary of consultation proposals

2.16. In the strategy consultation document we consulted on whether our proposed mechanism for annually updating the cost of debt assumption based on an index was appropriate. We proposed to set the cost of debt assumption based on a simple ten year trailing average using an average of the iBoxx GBP Non-Financials indices of 10+ years maturity, with credit ratings of broad A and broad BBB.

Summary of responses

2.17. In general, the DNOs' major concern with the cost of debt index was that the current 10 year simple trailing average is not reflective of the actual maturity of network company debt. DNOs argue that the only rationale for choosing ten years is because the selected indices, chosen to create the cost of debt index do not have sufficient data to cover an appropriate financing period. Several network companies have proposed using a longer average of yields commencing from the start of the iBoxx data in 1998 which increases in length until there is sufficient data to construct a 20 year trailing average. DNOs argue that this would smooth movements in interest rates, especially since interest rates are currently at historical lows, and more closely match the maturity of DNO debt.

2.18. Furthermore, DNOs have argued that the simple 10 year trailing average assumption does not take into account the cost of embedded debt, particularly debt efficiently incurred more than 10 years ago when nominal coupons were comparatively higher. DNOs argue that because network companies are locked into paying interest rates above the current market rates, a simple trailing ten year average will understate their cost of debt.

2.19. DNOs have also contended that an allowance should be provided to compensate for the costs of issuing debt. They argue that the 'halo effect' previously observed and considered to be sufficient to cover any auxiliary costs is shrinking as network companies make up an increasing proportion of the market index.

2.20. One DNO remained concerned that Solvency II and Basel III will increase the cost of debt for network companies. Additionally, they also disagree with our assertion in the RIIO-ED1 Consultation paper that the inflation risk premium appears to be offset by a liquidity premium.

2.21. One supplier supported the current approach for assessing the cost of debt.

Reasons for our decision

2.22. Based on the feedback we have received during the consultation process, we do not believe any new arguments have been raised that materially change our assessment on the methodology for calculating the cost of debt utilised in RIIO-GD1 and RIIO-T1. We will therefore retain our approach of annually updating the cost of debt estimate based on the simple 10-year simple trailing average of the iBoxx indices, with no adjustments to the index.

2.23. In the paragraphs that follow we discuss our decision in light of the points raised in consultation responses. Specifically, we address the following:

- costs not directly covered in the index (such as issuance costs and liquidity management fees)
- embedded debt costs
- the inflation risk premium and
- the potential impact of regulations such as Basel III and Solvency II.

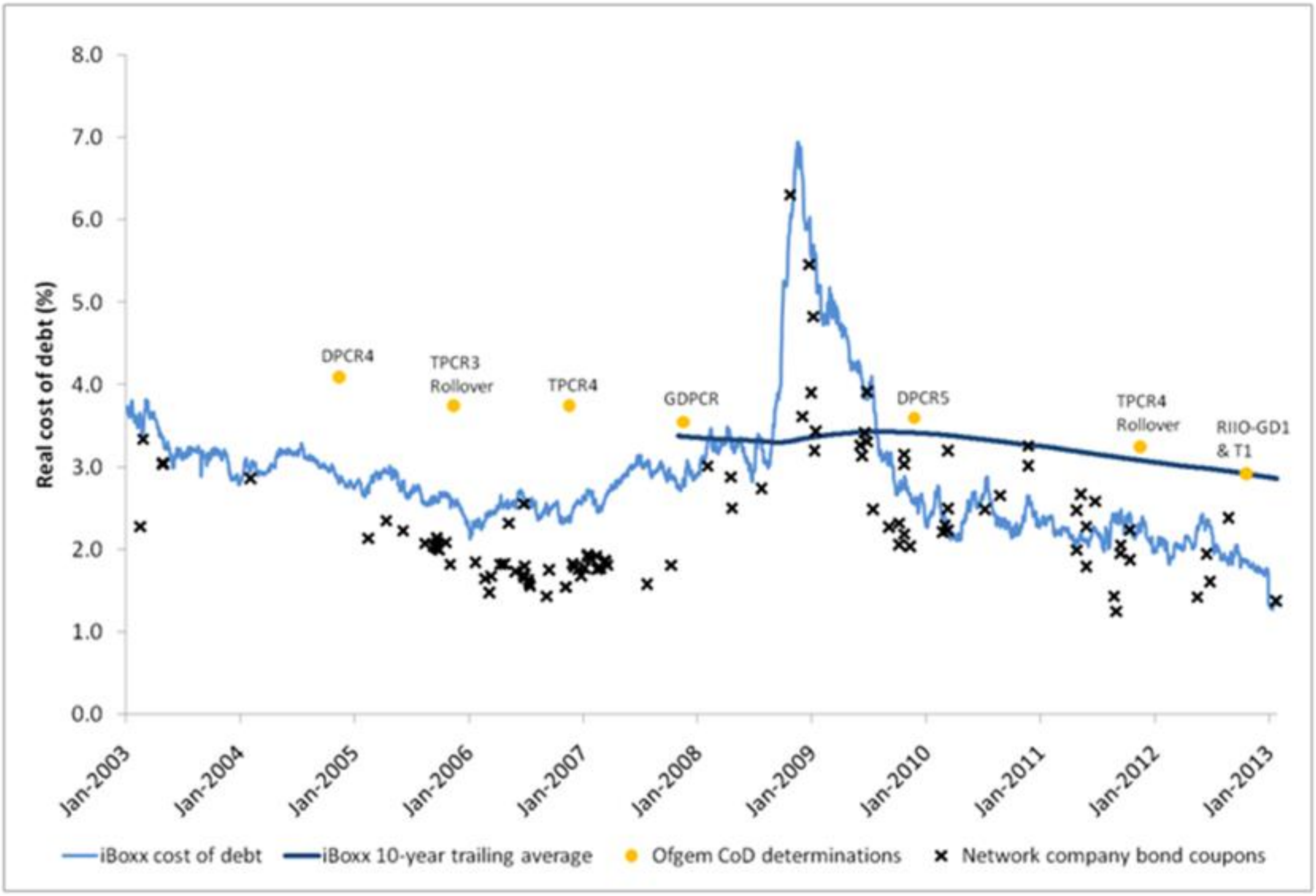
Costs not directly covered in the index.

2.24. Over the history of the iBoxx index, network companies have been able to issue debt at coupons that are on average 53 bps below the market cost of debt on the day (as illustrated in Figure 2.2). This is because of the 'halo effect' that the network companies appear to enjoy, which may be the result of:

- a guaranteed revenue stream
- asset value underpinned by the RAV

- no or very low competitive pressure
- no volume risk on revenues
- a well-established, well-understood regulatory regime.

Figure 2.2: Cost of debt index and coupons on utility bonds



2.25. We consider that the level of outperformance relative to the index is sufficient to cover any auxiliary costs the DNOs might incur when issuing new debt. We, therefore, propose to maintain an implicit allowance for the cost of issuing debt in the form of this observed outperformance.

2.26. The DNOs have argued that their bonds issued during 2010 and 2011 have not outperformed the iBoxx index to the same extent as in the past and, at times, have been issued at a premium to the index. This, it has been argued, suggests that past outperformance of the index was a temporary phenomenon, rather than a reflection of network companies' inherent low risk. In order to ensure that efficiently-incurred debt is fully funded, including any additional costs not captured in the index (ie issuance and liquidity fees), they have argued that an uplift should be applied to the index.

2.27. As discussed above, we consider that there are characteristics of the DNOs and the regulatory regime within which they operate that appear to have allowed them to raise debt more cheaply than other companies of similar credit ratings (ie to outperform the cost of debt index). We consider that these characteristics are innate to regulated network companies.

2.28. We do note, however, that bonds issued by network companies since the start of 2010 have outperformed the iBoxx index by 14 bps, compared to 53 bps over the history of the iBoxx index. This narrowing of the level of outperformance may be a temporary issue and a function of the financial crisis, rather than any structural change in the risk profile of the network companies. We intend to keep this matter under review, but at present there does not seem to be sufficient evidence to deviate from the approach suggested above.

Embedded debt costs.

2.29. The DNOs have argued that current low interest rates (and the prospect that they remain low) could result in efficiently-incurred past debt not being fully funded as the value of the cost of debt index may decline faster than their average cost of debt falls.

2.30. In its report for us during RIIO-T1 and GD1, FTI Consulting[4] noted that the potential for embedded and new debt costs to diverge is an issue that comes up regularly in price control reviews. In that regard, any risk that the network companies may be exposed to is not a function of our proposal to update the cost of debt assumption annually based on an index.

2.31. The extent to which the indexed allowance would reflect a network company's actual cost of debt would depend on a number of factors, including:

- the timing and frequency of debt issued by the company
- how efficiently the debt was incurred (ie the coupon on the bonds)
- the duration of the company's debt (while the index completely 'refreshes' itself every ten years, the network companies typically raise debt with around 20 years tenor)
- the credit rating of the company (a company rated in the A category would typically issue debt more cheaply than a company rated in the BBB category).

2.32. Our assessment during RIIO-T1 and GD1, found that the 10-year simple trailing average provided adequate coverage for network companies under a range of scenarios. At present we consider the same applies for RIIO-ED1. Therefore, we do not propose to make any adjustment for embedded debt costs. However, we will consider new information or issues that the network companies may raise.

[4] Cost of capital study for the RIIO-T1 and GD1 price controls – Report by FTI Consulting
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/RIIO%20T1%20Cost%20of%20capital%20study%20for%20RIIO%20T1%20and%20GD1.pdf

Inflation risk premium

2.33. The DNOs have argued that the 'breakeven inflation' figures we intend to use to deflate the iBoxx index contain an inflation risk premium and, therefore, overstate expected inflation. As a result, the estimated cost of debt would be lower than it should be.

2.34. Although there is no question that an inflation risk premium exists, for the purposes of setting an indexed cost of debt allowance what matters is whether this premium is material.

2.35. In order to determine whether our proposed approach is appropriate we need to assess the extent to which breakeven inflation figures reflect the expected inflation that may be priced into the bonds in the iBoxx indices. Our starting assumption is that bonds are priced with reference to expected inflation in terms of the Retail Price Index (RPI). We also consider it appropriate to assume that long-term expected inflation (ie those that would be priced into bonds of 10+ years maturity, as in the iBoxx indices) is anchored by the Bank of England's inflation target. This target is currently set at 2 per cent on the Consumer Price Index (CPI). We, therefore, consider that one way in which investors may form their long-term inflation expectations is by 'translating' the Bank of England's inflation target from CPI terms to RPI. When doing so, we consider it likely that investors would use information since the last structural break in long-term expected inflation, which appears to be the adoption of an explicit inflation target in May 1997[5].

2.36. Since the Bank of England began pursuing an explicit inflation target in May 1997, breakeven inflation (ie the difference between the yield on conventional gilts and the yield on index-linked gilts) has been on average 2.8 per cent at 10-year maturity. Over the same time period, the difference between RPI inflation and CPI inflation averaged 0.8 percentage points. Hence, the Bank of England's 2.0 per cent inflation target for CPI would imply long-term expected inflation of 2.8 per cent on RPI – matching the measure by which we deflate our index.

2.37. The above suggests that the inflation risk premium is countered by other factors of a similar magnitude, such as a liquidity premium on index-linked gilts. It is reasonable to expect that a small liquidity premium is paid on index-linked gilts relative to conventional gilts, since the latter represent a significantly larger market, and the former are often held rather than being traded.

2.38. We conclude that our proposed approach does not result in a downwardly biased estimate of the real cost of debt. Therefore, we do not propose to make any changes to the index.

[5] The Bank of England began explicit inflation targeting in May 1997. The target was initially set in terms of the Retail Price Index Excluding Mortgage Interest Payments (RPIX). Since 2004, however, the target has been 2 per cent on the CPI. Our analysis shows that the adoption of an explicit inflation target in May 1997 represented a structural break, with long-term expected inflation falling by around one percentage point almost instantaneously. The change of target from RPIX to CPI does not appear to have changed long-term expected inflation. It is unclear at this stage whether the global financial crisis has resulted in a structural break in long-term expected inflation.

Potential impact of Basel III and Solvency II[6]

2.39. Some DNOs have argued that Basel III regulations will increase the cost of liquidity facilities and that Solvency II requirements would reduce insurance companies' demand for long-dated utility bonds and, therefore, increase the cost of debt. They have argued that these costs would not be captured in the iBoxx index.

2.40. We note that the outcome and timing of application of Basel III and Solvency II are still uncertain. Any impact these regulations might have is not a function of the decision to update the cost of debt estimate annually based on the iBoxx index. Indeed, if the market cost of debt rises as a result these regulations, it will be captured in the index. In its report for RIIO-T1 and GD1, FTI Consulting noted that network companies should also be able to access funds from sources that are not affected by these regulations, such as dedicated liquidity facilities.

Cost of equity

Our decision

2.41. Based on the feedback we have received to the September consultation, we have maintained our indicative cost of equity range of 6.0 - 7.2 per cent (post tax real), which is consistent with that set in previous strategy papers for RIIO-T1 and RIIO-GD1.

2.42. Figure 2.3 summarises our initial range for the cost of equity and compares it to our recent decisions. We consider our range consistent with both observed market trends and recent regulatory precedent.

Figure 2.3: Initial range for the cost of equity.

	RIIO-ED1		RIIO-GD1	RIIO-T1	RIIO-T1	DPCR5
Component	**Low**	**High**		**Gas**	**Electricity**	
Risk-free rate	1.7%	2.0%	2.0%			
Equity risk premium	4.75%	5.5%	5.25%			
Equity beta	0.9	0.95	0.9	0.91	0.95	0.9
Cost of Equity (post-tax)	**6.0%**	**7.2%**	**6.7%**	**6.8%**	**7.0%**	**6.7%**

[6] Basel III and Solvency II are proposed sets of regulations on the capital requirements of banks and insurers, respectively. While they are not under Ofgem's control, they are expected to come into effect during RIIO-ED1 and may have an impact on the DNOs' financial activities.

Summary of consultation proposals

2.43. In the strategy consultation document, we consulted on whether our range for the cost of equity captures the DNOs' probable cost of equity in RIIO-ED1. We proposed a cost of equity range of 6.0 – 7.2 per cent (post-tax real).

2.44. We also consulted on whether the ex ante approach to the cost of raising notional equity is appropriate for RIIO-ED1.

Summary of responses

2.45. Four DNOs stated that there was much more risk and uncertainty for the network companies in RIIO-ED1 compared to DPCR5 and other price controls, and this should be reflected in the allowed cost of equity.

2.46. The following factors were argued to increase the cost of equity:

- potentially higher cost-to-RAV ratios (both opex and capex)
- longer price control
- increased exposure to cost of debt
- increased level of incentives
- increased economic asset lives
- a greater proportion of allowances being set on an ex-ante basis, rather than determined within period
- a different treatment of pensions with less certain full cost recovery
- potential impact of smart metering leading to higher risk than all other sectors.

2.47. Two DNOs stated that the upper half of the published range is likely to prove appropriate to balance the added risks whilst another stated that the cost of equity should be at the top half of the range to reflect the current market cost of equity.

2.48. One DNO supported the relatively tight cost of equity range as it facilitates investor certainty in the closing stages of DPCR5.

2.49. One DNO sought more detailed evidence on the rationale for our range. They considered the upper end of our equity risk premium of 5.5 percent to be low compared to forward looking broker estimates and the Bank of England's estimate of the premium required to hold UK equities. They argued that this would indicate that, on a forward looking basis, the top end of our cost of equity range is too low.

2.50. One supplier expressed 'surprise' at our proposed range for the cost of equity, commenting that it seemed to diverge from recent evidence, regulatory decisions, and the views of the Competition Commission. They stated that such a high top end can only be manufactured through a risk free rate which allows for a rapid reversal in the downward trend in Index-Linked Gilts (ILGs) and an equity risk premium above the latest long term estimates from Dimson, Marsh and Staunton. In addition, the supplier argued that they did not support the bottom range of the risk free rate. They recommend a range of 1.5 to 2.0 percent as it is supported by market evidence and recent decisions from Ofcom and the Competition Commission.

2.51. A network company outside the electricity distribution sector was broadly supportive of our proposed approach. However, it emphasised that the cost of equity must be assessed alongside notional gearing and risk or uncertainty in (notional) equity returns and that these risks are increased under the RIIO framework due to the longer duration and enhanced focus on outputs.

2.52. As part of the consultation, we received a presentation from Oxera (on behalf of the Energy Networks Association) discussing the risk factors in RIIO-ED1. As part of their analysis they reviewed the following factors to determine the risk in RIIO-ED1:

- Scale of totex;
- Length of the price control;
- Efficiency incentive rate;
- Uncertainty mechanisms;
- Regulatory incentives; and
- Pensions.

2.53. Based on Oxera's comparative risk assessment they concluded that in comparison to RIIO-T1 and GD1, RIIO-ED1 will be at least as risky as, and potentially riskier than, RIIO-T1 and GD1 controls. Whilst we agree with Oxera on the potential risk factors, we do not agree that the evidence presented indicated that RIIO-ED1 is riskier than previous price controls.

2.54. There was a general consensus amongst the DNOs that an ex ante approach to the cost of raising equity is appropriate for RIIO-ED1.

Reasons for our decision

2.55. Having carefully considered the responses to the consultation we have maintained our cost of equity range.

2.56. In the paragraphs that follow we discuss our decision in light of the points raised in consultation responses. Specifically, we address the following:

- changes in the duration of cashflows;
- the equity risk premium; and
- the equity beta.

Duration of cash flows

2.57. Our proposal to move away from accelerated depreciation for DNOs would result in investment being remunerated, through the depreciation charge, over a longer period than previously. In our RPI-X@20 decision document we recognised that there are arguments that, when taken in isolation, lengthening the time over which capital is remunerated could increase the riskiness of cash flows and, therefore, the cost of capital.

2.58. Oxera, advising the Energy Networks Association, argued that there is a positive relationship between the duration of cash flows and the cost of capital. Oxera[7] argued that we should, therefore, increase the allowed return by setting a higher equity beta and a lower notional gearing level. On the other hand, our advisers CEPA[8] argued that the longer duration of cash flows does not have a material impact on the cost of capital. We subsequently asked Europe Economics[9] to examine empirical evidence.

2.59. Europe Economics looked at cases where the duration of cash flows has been changed by regulatory intervention, and tested whether this resulted in an observed change in the equity beta. Europe Economics considered the introduction of accelerated depreciation in DPCR3 – in a sense the inverse of what we will do in RIIO-ED1 – and noted that the equity beta for companies that owned distribution networks at the time did not decline, as would be expected had Oxera's argument held true.

2.60. Europe Economics also considered four occasions when HM Treasury changed the capital allowance for oil companies (in 2002, 2004, 2006 and 2009) and noted that observed equity betas did not react to the changes.

2.61. Overall, Europe Economics concluded that its analysis shows no sign that equity betas respond to step changes that are intended to have material implications for the duration of cash flows. Further, Europe Economics' report states that "We do not regard it appropriate for a regulator to entertain a large departure from corporate finance theory without having a clear alternative theoretical structure offer in its place, and a clear evidential rationale for preferring the latter framework".

2.62. Further to this, we note that, if there is an impact on the cost of capital from the duration of cash flows, it is significantly mitigated by only applying 45-year asset lives to new assets. It could be further mitigated by the application of any transitional arrangements on asset lives.

2.63. Overall, we do not consider the duration of cash flows to be a material factor in setting the appropriate cost of equity for RIIO-ED1.

Length of price control

2.64. Under RIIO we have lengthened the default price control period from five years to eight. This was specifically to enhance companies' ability to manage more effectively the uncertainties they face in the move to a low carbon economy.

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[7] See, for example, What is the cost of equity for RIIO-T1 and RIIO-GD1? – a report by Oxera prepared for the Energy Networks Association
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/Energy_Networks_Association_-_Oxera_report.pdf
[8] See, for example, Providing financeability in a future regulatory framework – paper by CEPA on behalf of Ofgem
http://www.ofgem.gov.uk/Networks/rpix20/ConsultReports/Documents1/Final%20CEPA%20RPI-X@20%20Financeability%20Report%20May%202010.pdf
[9] The Weighted Average Cost of Capital for Ofgem's Future Price Control – Report by Europe Economics on behalf of Ofgem
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/Europe%20Economics%20Final%20Report%20-%20011210.pdf

2.65. Oxera, advising the Energy Networks Association, have provided us with analysis which they conclude indicates that there is an increase in risk from increasing the price control period from five years to eight. Having reviewed this analysis we consider that the evidence presented is not sufficiently detailed to indicate that RIIO-ED1 is riskier than previous price controls.

Initial range for the cost of equity

2.66. As discussed in the strategy consultation document, investors view the DNOs as being of relatively low risk. This is because of their predictable revenue stream, asset values that are anchored to the RAV, and the stable and transparent regulatory regime in which they operate. The result is that DNOs have been able to access funds at a lower cost than the market average and to attain a comfortable investment grade credit rating while having relatively high gearing.

2.67. RIIO introduces a new approach to setting the components of the allowed return, which means that direct comparison to past decisions by Ofgem (or other regulators) is not always appropriate. However, regulatory precedent does influence, to some extent, expectations about future regulatory decisions. With that in mind, Figure 2.4 summarises recent regulatory determinations on the cost of equity.

Figure 2.4: Regulatory precedents on the cost of equity

Determination		Year	Risk-free Rate	Equity Risk Premium	Equity Beta	Cost of Equity
Ofgem:						
RIIO-GD1		2012	2.0%	5.25%	0.90	6.7%
RIIO-T1 Gas		2012	2.0%	5.25%	0.91	6.8%
RIIO-T1 Electricity		2012	2.0%	5.25%	0.95	7.0%
DPCR5		2009	2.0%	5.25%	0.90	6.7%
GDPCR		2007	2.5%	4.75%	1.00	7.3%
TPCR4		2006	2.5%	4.50%	1.00	7.0%
Other UK Regulators:						
Ofcom BT Openreach		2011	1.4%	5.00%	0.91	6.0%
Competition Commission Bristol Water		2010	2.0%	5.00%	0.92	6.6%
CAA NATS		2010	1.8%	5.25%	1.35	8.8%
Ofwat PR09		2009	2.0%	5.40%	0.94	7.1%
CAA Stansted	Low	2009	2.0%	3.00%	1.00	5.0%
	High		2.0%	5.00%	1.24	8.2%
ORR CP4	Low	2008	-	-	-	6.5%
	High		-	-	-	7.0%
CAA Heathrow	Low	2007	2.5%	2.50%	0.90	4.8%
	High		2.5%	4.50%	1.15	7.7%

Source: Regulators' decision documents

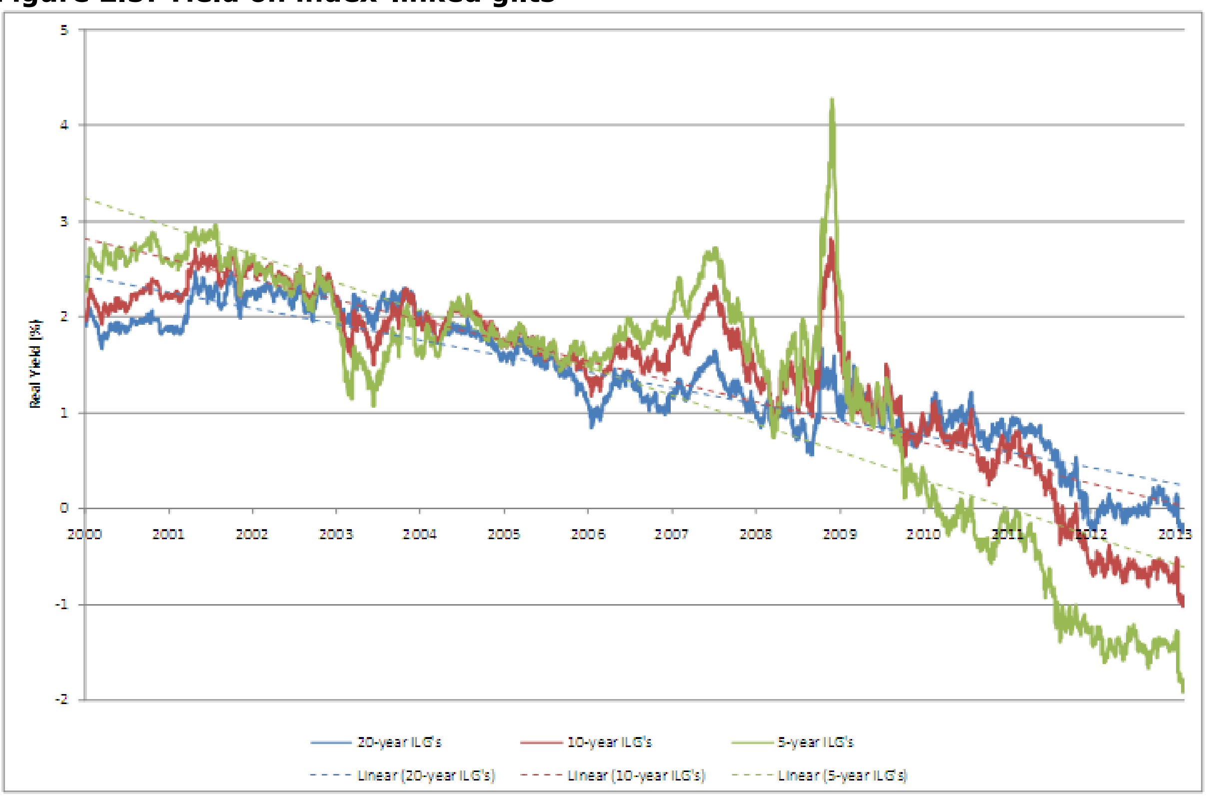
Risk-free rate

2.68. The risk-free rate is the rate of return that an investor would expect to earn on a theoretically riskless asset. Typically, government issued securities are considered the best available indicator of the risk-free rate due to the low likelihood of the government defaulting on its obligations.

2.69. Our preferred approach is to estimate a range for the risk-free rate from UK Index-Linked Gilts (ILGs) and sense-check the range against conventional gilts and regulatory precedent.

2.70. Figure 2.5 plots the yield on ILGs of 5, 10 and 20-year maturities. A clear downward trend is observed over the last 10 years or so, which was temporarily disrupted by a spike in yields around the time of the collapse of Lehman Brothers in late-2008. Similar trends are observed for conventional gilt yields.

Figure 2.5: Yield on index-linked gilts



Source: Bank of England

2.71. Figure 2.6 summarises the key medium and long term estimates of the risk-free rate.

Figure 2.6: Historical average yields on ILGs and conventional gilts.

Measure	Yield (%)
ILGs 5-year average (Dec. 2007 - Dec. 2012)	
5 years	0.1
10 years	0.6
20 years	0.7
ILGs 10-year average (Dec. 2002 - Dec. 2012)	
5 years	1.1
10 years	1.3
20 years	1.2
Deflated nominal gilts 5-year average (Dec. 2007 - Dec. 2012)*	
5 years	-0.3
10 years	0.7
20 years	1.3
Deflated nominal gilts 10-year average (Dec. 2002 - Dec. 2012)*	
5 years	0.8
10 years	1.3
20 years	1.5

* Using assumption of 2.8 per cent RPI

Source: Bank of England

2.72. In light of the above, we propose to use an initial range for the risk-free rate of 1.7 – 2.0 per cent.

2.73. We note that there is increasing evidence to suggest that long-term estimates of the risk-free rate are currently lower than the 2.0 per cent we set in DPCR5 and in the final proposals for RIIO-T1 and GD1. However, it has been argued by some[10], that the Bank of England's quantitative easing policy has pulled down the yield on ILGs by as much as 100 bps. In addition, we place more emphasis on the overall cost of equity estimate and recognise the need to provide consistency between the estimate of the risk free rate and the estimate of the equity risk premium. Hence, we have kept 2.0 per cent as the upper bound of the range to be consistent with the long-term averages used in the equity risk premium estimate and to allow for the possibility that the downward trend described above or quantitative easing are reversed during RIIO-ED1.

Equity risk premium

2.74. In the CAPM framework, the equity risk premium (ERP) is a measure of the expected return, on top of the risk-free rate, that an investor would expect for a portfolio of risk-bearing assets. This captures the systematic risk that is inherent to the market, and which cannot be diversified through a portfolio of investments.

[10] See, for example, M. A. S. Joyce, A. Lasaosa, I. Stevens, and M. Tong (2011), The Financial Market Impact of Quantitative Easing in the United Kingdom, *International Journal of Central Banking* http://www.ijcb.org/journal/ijcb11q3a5.pdf

2.75. Our preferred approach is to rely on the well-established long term ERP estimates provided by Dimson, Marsh and Staunton (DMS). This study assessed the excess return on equities relative to sovereign bonds in 19 developed countries over more than 100 years (since 1900). In their 2012 update[11], DMS estimate the ERP for the UK to be 3.6 per cent when using the geometric mean, and 5.0 per cent when relying on the arithmetic mean of the historical series.

2.76. We note that there has been no consensus in the debate about which of the arithmetic mean or geometric mean is more appropriate for the purpose of setting the cost of equity in a regulatory context.

2.77. FTI Consulting noted that the DMS methodology results in a lower estimate of the ERP when estimated during downturns in a country's stock market. In contrast, a number of academics have argued that the ERP rises at the time of a financial crisis, as investors may seek a higher return to compensate for the perceived increase in risk. Taken together, we consider the ERP for RIIO-ED1 would more likely lie around the upper end of the range suggested by DMS.

2.78. Overall, our initial range for the ERP is 4.75 – 5.5 per cent, unchanged from the range proposed in the strategy decision for RIIO-T1 and GD1. We do note, however, that the upper end of the range is high relative to regulatory precedent on the ERP.

Equity beta

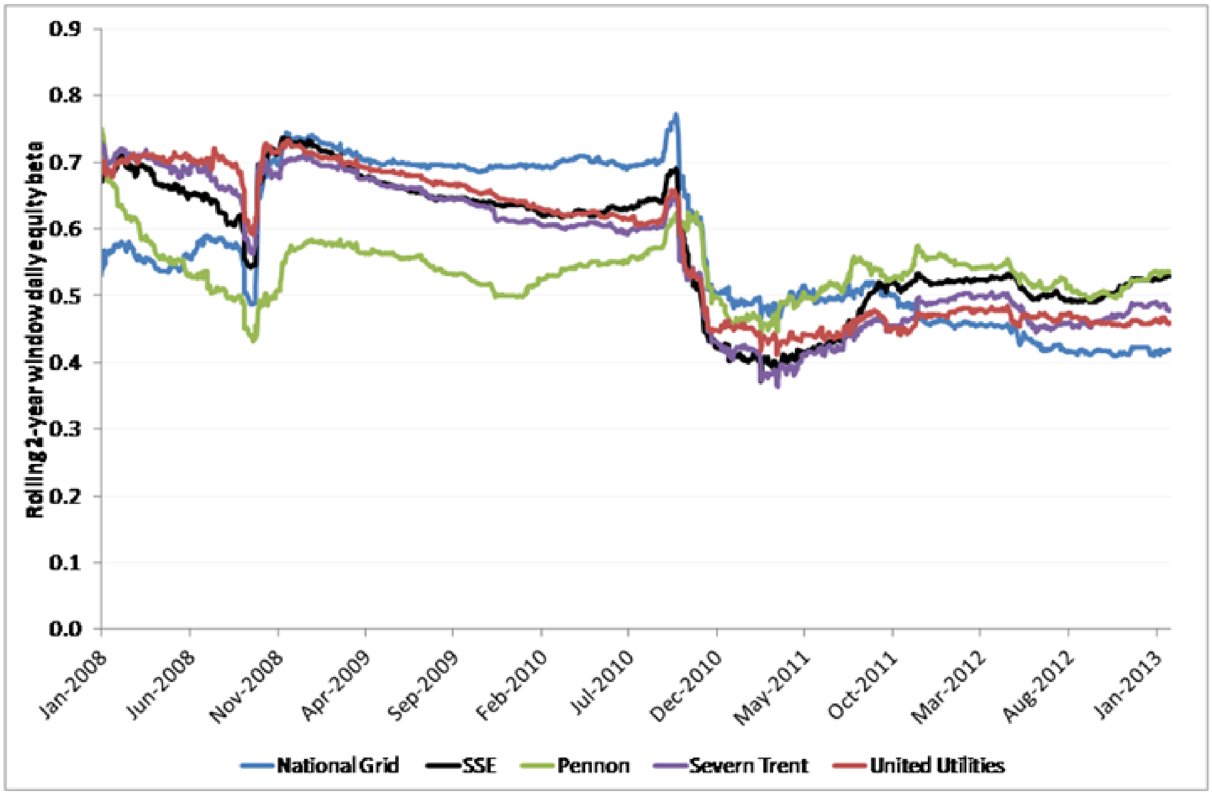
2.79. The equity beta measures the covariance of the returns on a stock with the market return. The weaker this covariance, the greater the contribution a particular stock could make to reducing exposure to systematic risk and, hence, the lower the required return.

2.80. Since none of the DNOs are publicly listed, there is no direct method for estimating their equity beta and this requires us to rely on comparators. We calculate equity betas for the listed UK energy groups which own network companies (National Grid and SSE), as well as the three listed water companies (Pennon, Severn Trent and United Utilities), which operate under a broadly similar regulatory regime. The analysis focuses on a two-year moving average of daily betas, in line with the recommendations of the Smithers Report[12].

2.81. Figure 2.7 plots our estimates of the equity betas for the companies mentioned above. We note an observed range of around 0.4-0.6 over the past year or so, with a range of around 0.5-0.75 in the previous three years. This range highlights the fact that regulated network companies would likely have a lower risk profile than the market average, because of the protections afforded to them via the regulatory framework. These ranges are supported by the work undertaken for us by Imrecon and published as part of our Final Proposals for RIIO-T1 and GD1.

[11] Credit Suisse global investment returns sourcebook 2012.
[12] Transmission Price Control Review: Cost of Capital Study - Smithers & Co
http://www.ofgem.gov.uk/Networks/Trans/Archive/TPCR4/ConsultantReports/Documents1/15576-smithers_co.pdf

Figure 2.7: Equity beta estimates for comparator companies.



Source: Bloomberg

3. Assessing financeability

Chapter Summary

This chapter sets out our proposed approach to assessing the DNOs' financeability when developing the price control package. We also discuss the role of Return on Regulatory Equity (RoRE) analysis.

Our approach to assessing financeability

3.1. In setting price controls, we are required to have regard to the ability of efficient network companies to secure financing to facilitate the delivery of their regulatory obligations. This is also in the interests of consumers. We define this ability as indicated by a notional efficient network company attaining a 'comfortable investment grade' credit rating (ie in the BBB to A range).

Our decision

3.2. We intend to use the two equity metrics and six credit metrics outlined in the consultation proposal as part of our overall financeability assessment. We will also take into account the qualitative factors considered by rating agencies as part of their overall rating assessment, for example business risk and regulatory environment, as well as our RORE analysis.

Summary of consultation proposals

3.3. In the strategy consultation document we set out the key equity and credit metrics that we intended to use as part of our overall financeability assessment, recognising that these account for broadly a third of the rating agencies' rating assessment.

3.4. The key equity metrics were:

- Regulated Equity / EBITDA[13]
- Regulated Equity / Regulated Earnings[14].

3.5. The key credit metrics were:

- Net debt / RAV
- FFO / Interest[15]

[13] EBITDA is 'earnings before interest, tax, depreciation and amortisation'.
[14] We use 'profit after tax' as the measure of regulated earnings for this ratio.
[15] FFO is 'funds from operations'. Rating agencies differ in their treatment of accretions of index-linked debt when it comes to this ratio. Moody's excludes accretions, calculating the ratio on a pure cash interest basis. Standard & Poor's includes accretions, calculating the ratio on a full interest expense basis. Our financeability assessment looks at this ratio on both cash interest and full interest expense basis.

- FFO / Net debt
- RCF / Capex
- RCF / Net debt[16]
- PMICR (also known as 'adjusted interest cover ratio') [17]

Summary of responses

3.6. In their responses DNOs generally agreed that we have chosen the correct equity and credit metrics. One DNO recommended including EBITDA / Interest as this is commonly used in debt covenants for both bond and bank facilities.

3.7. Two DNOs commented that whilst the published metrics reflect the rating agencies' current guidance, if the final shape of the RIIO-ED1 package results in greater uncertainty then this could lead to the credit agencies demanding stronger ratios to maintain the same credit ratings. Similarly, one DNO stated that single A rating metrics should be targeted to maintain investor confidence in the sector and to minimise the risk of DNOs not having access to capital markets.

3.8. One supplier was highly supportive of Ofgem's approach to financeability that allows an element of judgement, even when credit ratios may fall outside the ranges set out for the relevant category under an agency's methodology.

Reasons for our decision

3.9. A central feature of the RIIO model is that we will base our regulatory settlement on robust principles that will ensure that network companies are financeable in the long term. Financeability analysis is, however, focused on the upcoming price control period.

3.10. As noted in a number of the consultation responses, credit rating agencies take into account a wider range of issues than just credit metrics and rating decisions ultimately include a degree of judgement. Furthermore, the three major rating agencies (Fitch, Moody's and Standard & Poor's (S&P)) tend to focus on different criteria in their evaluations. It is important, therefore, to understand that our financeability analysis does not intend to replicate the different rating agencies' methodologies.

3.11. Certain factors that credit agencies look at are largely common to all network companies (eg business risk, regulatory environment) and are included in our financeability analysis. Other factors are subject to each company's management's decisions (eg the allocation of debt between holding company and licensee) and we abstract from these in our analysis by

[16] RCF is 'retained cash flow'.
[17] PMICR stands for 'post-maintenance interest cover ratio'. It is a derivative of FFO/interest and, therefore is often referred to as the 'adjusted interest cover ratio'.

applying a notional financial structure to the licensees[18]. Credit rating agency thresholds[19] are then used to inform target credit ratio levels in our financeability analysis.

3.12. Figure 3.1 summarises the key credit metrics and relevant ratios that Fitch, Moody's and S&P expect for regulated network companies of BBB and A ratings (to the extent that these have been published) [20]. S&P does not publish target ratios for each rating category. Therefore, the ratios shown for it in Figure 3.1 are those that S&P observes for specific issuers with an 'excellent' business risk operating in the UK regulated electricity and gas sector[21]. All three rating agencies told us that they do not expect every issuer to meet every ratio at all times.

Figure 3.1: Credit metric ratios

	Fitch		Moody's		Standard & Poor's	
	A	BBB	A	Baa	A	BBB
Net debt / RAV (%)	50 - 65	>65	45 - 60	60 - 75	<70	>70
FFO interest cover (x)	4.0 - 5.0	<4.0	3.5 - 5.0	2.5 - 3.5	>3.5	2.5 - 3.5
PMICR[1] (x)	>1.7	<1.7	2.0 - 4.0	1.4 - 2.0		
FFO / Net debt (%)			12 - 20	8 - 12	>12	8 - 12
RCF / Capex (x)			1.5 - 2.5 [2]	1.0 - 1.5 [2]		

[1] Moody's calls this metric 'Adjusted interest cover ratio (ICR)' but the definition it uses is consistent with the definition of PMICR used by Fitch.

[2] According to Moody's, utilities undergoing a large capex programme who do not benefit from accelerated depreciation are expected to score this metric at a Ba level, i.e in the range 0.5 - 1.0.

3.13. We will use the ratios in Figure 3.1 to inform our financeability analysis for RIIO-ED1 as part of our overall financeability assessment that recognises that these metrics account for around a third of rating agencies' rating assessment.

3.14. Financeability analysis necessarily involves an element of judgement. Moody's for example has historically had a favourable view of the regulatory framework in the UK and this has allowed companies to maintain certain credit ratings, even where key financial metrics may have fallen modestly outside the ranges set out for the relevant broad rating category under the agency's methodology.

3.15. We take a similar approach and do not expect companies to pass all the ratios in all years. In particular, we seek to understand better any instances in which a network company:

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[18] It is worth stressing that our financeability analysis applies only to the licensee. We do not assess the financeability of any holding company.
[19] For Fitch and S&P these are observed ratios. We understand that for Moody's these represent target thresholds.
[20] Sources: Fitch Ratings - Rating EMEA regulated network utilities (http://www.fitchratings.com/creditdesk/reports/report_frame.cfm?rpt_id=541427)
Moody's Global Infrastructure Finance - Rating methodology for regulated electric and gas networks (http://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_118786).
[21] Also note that all S&P ratios are S&P-adjusted, and are fully consolidated to include debt at the holding company and operating company level within each issuer group.

- fails to meet a target ratio for a sustained period (ie several years)
- deviates significantly from a target ratio (either above or below) for more than one year in a row
- repeatedly fails one target ratio while passing all others.

3.16. We expect companies similarly to exercise judgement in their business plans and we do not require all ratios to be achieved in every year of the price control in order to produce a financeable plan. We also expect companies to recognise the role of other factors in the rating assessment made by rating agencies and the proportion of the rating affected by the credit metrics.

Return on Regulatory Equity (RoRE) analysis

Our decision

3.17. We use RoRE analysis to estimate the financial benefits – as measured by the return on the (notional) proportion of the RAV that is financed by equity – that are available to the network companies in RIIO-ED1 from outperforming the price control assumptions. By the same token, RoRE analysis allows us to assess the financial penalties for underperforming the price control assumptions.

3.18. We are maintaining our approach and intend to use the RoRE analysis in the first instance to establish the level of notional gearing that would allow an efficient company to achieve good returns and sufficient cover against downside risks.

Summary of consultation proposals

3.19. In September we stated our intention to use return on regulatory equity (RoRE) analysis to check the overall implications of the regulatory settlement, as well as in settling the notional gearing level.

Summary of responses

3.20. No substantive comments were made.

Reasons for our decision

3.21. RoRE serves as a tool for checking that the expected outcomes from RIIO-ED1 are financeable. The analysis takes a holistic view of all elements of the price control settlement to ensure that together they provide a fair balance of risk and reward for customers and shareholders. The RoRE analysis was well received among stakeholders.

3.22. Consultation responses to our proposed outputs and incentives were broadly supportive and the total incentive package should ensure that those companies that deliver for consumers earn attractive rates of return, whilst those that demonstrably do not deliver will earn low returns. This is illustrated in Figure 3.2 by the indicative potential range of return on regulatory equity (RoRE) available to the DNOs in RIIO-ED1. Whilst some respondents were concerned that the returns available under RIIO-ED1 might be lower than the range they have for DPCR5, our figure shows this not to be the case for fast tracked companies. The range is also greater than that available in RIIO-T1 and GD1 (graphs shown in Figure 3.3). This is largely due to the greater maximum efficiency incentive rate in RIIO-ED1 and the greater number (and value) of incentives.

Figure 3.2: Plausible RORE range for a fast-tracked DNO in RIIO-ED1 vs DPCR5

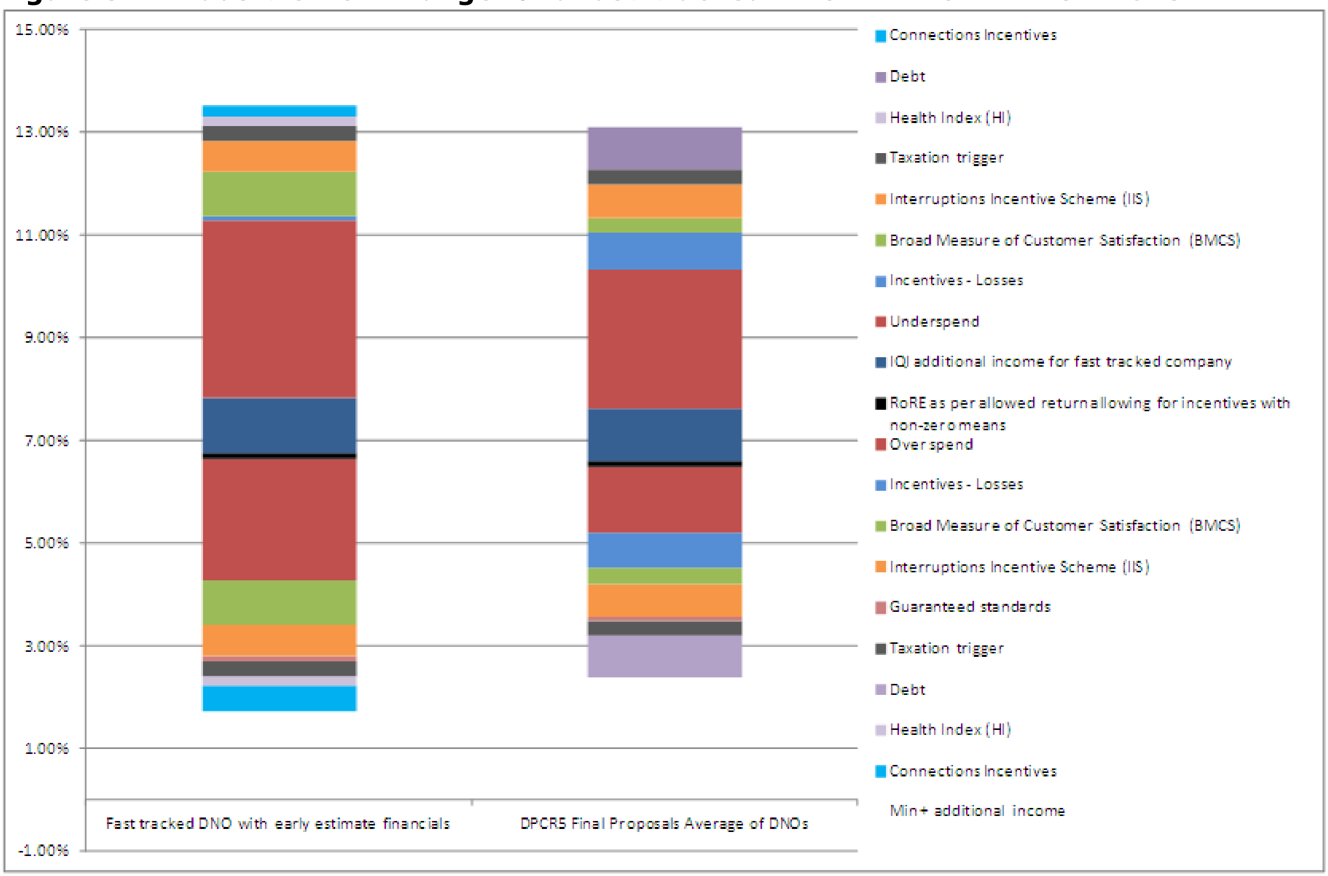
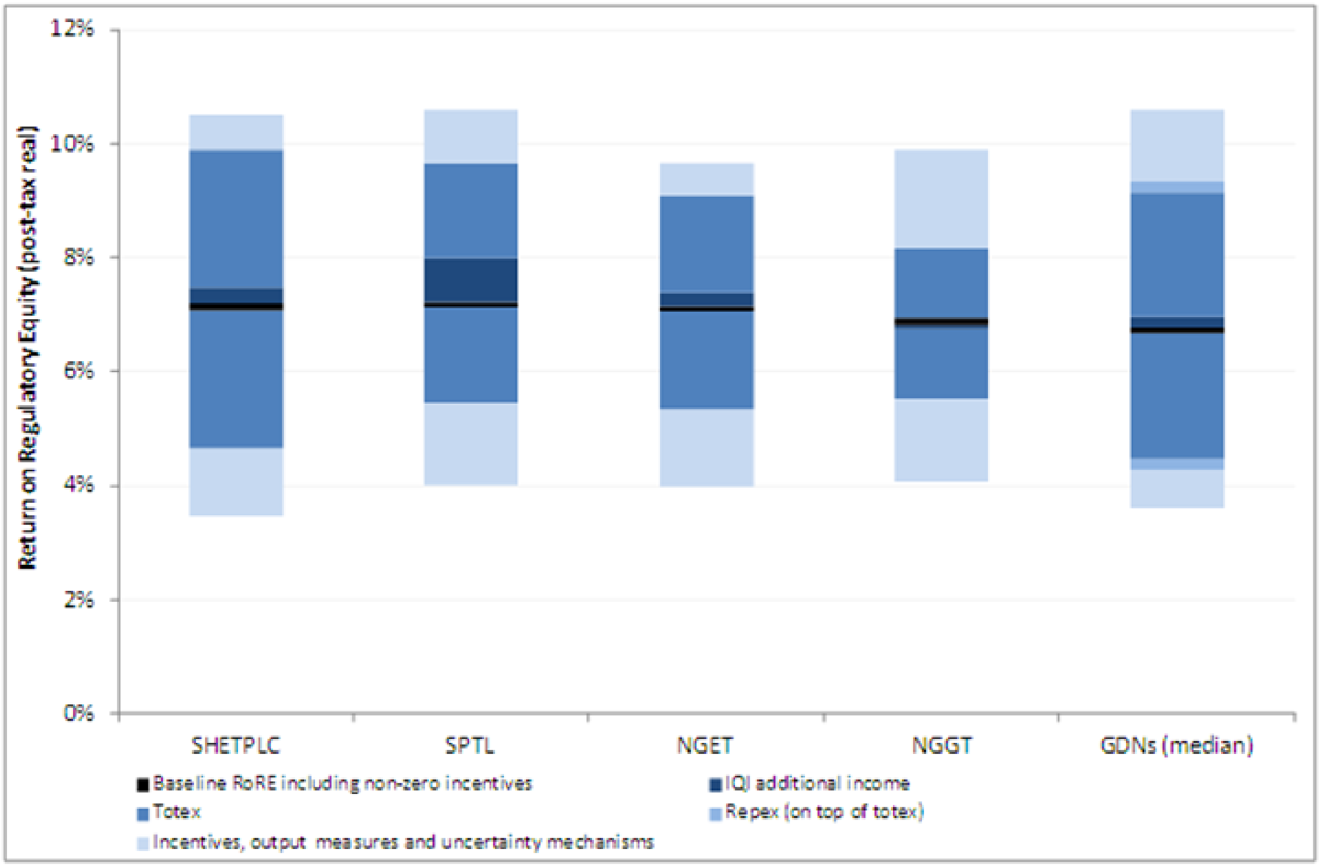


Figure 3.3: Estimated RORE ranges in RIIO-T1 andGD1



3.23. The forward looking RORE chart is intended to show the plausible range of performance of a fast tracked DNO using average RAV and allowed revenue given by the DNO estimates.

3.24. Cost of debt out- or under-performance is shown in terms of the notional company. In DPCR5 the spot rate adopted for the price control was shown against a 10 year trailing average. In RIIO-ED1 the 10 year trailing average has been adopted for the price control and notional outperformance cannot arise.

3.25. Our convention is to show equal up and downsides unless the incentive is skewed in its composition. Performance in DPCR5 to date shows all companies lying within the positive band of plausible performance estimated at the time of Final Proposals.

3.26. We make use of the matching convention so that all impacts of incentive schemes are shown in the year in which activities give rise to an incentive payment / deduction ignoring timing differences which may occur in practice.

4. Regulatory asset value (RAV)

Chapter Summary

This chapter sets out our proposed approach to additions to the regulatory asset value (RAV). We also discuss asset lives, depreciation and transitional arrangements.

Totex and capitalisation

Our decision

4.1. We will adopt a total expenditure (totex) approach to RAV additions, allocating a fixed percentage of totex to RAV over the price control period.

4.2. totex will broadly include all costs relating to licensees regulated activities, with the exception of pension deficit repair payments relating to the Established Deficit (which will be funded as fast money as set out in chapter 6), pass-through costs, related party margins, some specific scheme exemptions (see appendix 2) and some other minor exceptions.

4.3. We will calculate the percentage allocation of totex to RAV by using a selection of the information available to us to derive an appropriate capitalisation rate. We will take into consideration:

- Network company business plan projected capitalisation rates, using an average over the eight-year business plan period and considering all expenditure with an asset life of three years or less as fast money with the balance as slow money. Within this approach, indirect costs should follow the asset to which they relate.
- We will review company capitalisation levels in their regulatory accounts and other regulatory reporting over the past as a check against future forecasts
- Where in a well-justified business plan network operators make a case for technical innovation but with assets having lives slightly longer than three years we will consider inclusion of such expenditure as fast money.

4.4. In a change from DPCR5 totex will include the following types of expenditure:

- non operational capex
- business support costs.

4.5. The calculation of the net additions to the RAV will reflect two parameters which will be set at the price control review:

- first, the efficiency incentive rate. The higher the efficiency incentive rate, the smaller the proportion of any overspend that is passed on to consumers, including through net additions to the RAV

- second, the fixed percentage of totex to be added to the RAV. This is discussed above and effectively determines the extent to which adjustments made in light of actual totex are split between fast and slow money.

4.6. This approach will affect our definition of totex in that we will treat the portion of costs that consumers and licensees share as totex. This means that:

- where companies overspend, the actual spend less the amount shared will be treated as totex
- where companies underspend, the actual spend plus the amount shared will be treated as totex.

4.7. The definition of related parties will exclude captive insurance companies whilst not allowing any excess losses (to the extent that they are covered by captive insurers) to be funded by customers. This protects consumers whilst allowing network operators to act in an efficient manner.

Summary of consultation proposals

4.8. Our proposal for RIIO-ED1 was to remove any remaining boundary issues between categories and treat all costs (including business support and non-operational capex but excluding certain specific items) relating to the licensed entity for its licensed activities as totex. This provides a simpler approach and is consistent with the approach proposed in RIIO-GD1 and T1.

4.9. In the September strategy consultation there were some issues upon which we sought views and these were:

- our approach for the calculation of the percentage of totex allowed into RAV
- our revised approach to totex and which costs are included and excluded
- whether the definition of related parties should exclude captive insurance companies and whether our proposed approach is proportionate.

Summary of responses

4.10. One DNO agreed with our approach to calculating the percentage of totex allowed into RAV, while three DNOs suggested modifications including having phased capitalisation rates, using statutory accounting rules or using actual reported capitalisation amounts.

4.11. Six DNOs agreed with our definition of totex although three of those suggested that traffic management costs including fines and penalties should be included.

Reasons for our decision

4.12. We have decided to retain the approach set out in our September strategy consultation to use a fixed capitalisation rate as we consider that this best reflects the policy of equalising incentives and minimises disputes over accounting definitions.

4.13. We do not believe that varying the capitalisation rate by year is appropriate as actual expenditure is unlikely to exactly match the timing set out in the business plan. An average over the period is therefore more appropriate.

4.14. We aim to ensure that RAV additions broadly match investment in long life assets but do not consider that exactly matching actual statutory capitalisation rates adds any benefits. In addition, as the regulatory arrangements provide for some sharing of over or under-spend with consumers a perfect match would not be possible.

4.15. As with the other RIIO price controls, traffic management fines and penalties will be excluded from totex so that the incentive properties of the schemes are not decreased.

Asset lives and depreciation

4.16. In March 2011 we published our decision[22] on the regulatory asset lives for electricity distribution.

4.17. Our decision on the approach to asset lives for electricity distribution assets was to apply an average expected economic asset life of 45 years for new assets, with straight-line depreciation. The new asset life will only apply to new investment from the commencement of RIIO-ED1 on 1 April 2015. Existing assets will continue to use the existing 20-year asset life.

Transitional arrangements

4.18. We are committed to ensuring that efficient networks are able to raise the finance they require, both equity and debt, in a timely manner. We recognise that, even with the policy of applying the change in asset lives to new assets only, transitional arrangements may be required. DNOs will have the opportunity to set out and justify in their RIIO-ED1 business plans the transitional arrangements that they believe are necessary to ensure financeability.

4.19. Our preference is to manage any transition required over one price control period where possible. This period, combined with the extensive period of consultation preceding it, should provide a sufficient time to allow companies to adapt their financing approach and to avoid any financeability concerns. Our prime driver for the period of transition will be financeability considerations.

[22] Decision letter on the regulatory asset lives for electricity distribution assets (49/11) http://www.ofgem.gov.uk/Networks/Policy/Documents1/assetlivedecision.pdf

5. Taxation

Chapter Summary

Where chapters are long or complex you should consider providing a short non-technical summary of the chapter contents. Focus on a few key messages that you want to get across.

Summary of decisions

5.1. Our decisions are to:

- Model tax based on the revised draft proposals of the Financial Reporting Council (FRC) for the future financial reporting in the UK.
- Spread the fast money adjustments arising from DPCR5 evenly over the eight years of RIIO-ED1 on an NPV neutral basis.
- Continue with the tax trigger mechanism introduced in DPCR5, updating the calibration of the dead-band for the trigger mechanism.
- Continue with the tax clawback mechanism for excess gearing with any clawback adjustments applied annually as part of the Annual Iteration Process.
- Model tax liabilities and resultant cash flows as being incurred in the year they arise.
- Retain our DPCR5 generic approach to attributing qualifying expenditure to capital allowance pools to ensure a consistent approach to allowed expenditure across all licensees.
- Reset the opening regulatory capital allowance pools to actual levels.
- Introduce the same incentivisation approach to business rates as applied to transmission and gas distribution licensees, which effectively retains them as a pass-through.

5.2. Further detail on these decisions and our overall approach to taxation is set out in appendices 3, 4 and 5.

Summary of consultation proposals

5.3. We proposed to model tax from 1 April 2015 based on the FRC's revised draft proposals for the future financial reporting in the UK[23]; and that all capital allowances are claimed at rates in line with current legislation and, except for deferred revenue, will be treated as claimed in the year the expenditure is incurred. We proposed to treat deferred revenue as tax deductible over 45 years on a straight line basis.

5.4. We proposed to retain the DPCR5 tax trigger mechanism; and to calibrate the dead band for the tax trigger as the greater of a one per cent change in the rate of mainstream corporation tax (CT) and a change of 0.33 per cent in base demand revenues; and, that

[23] Draft FRS 100 'Application of Financial Reporting Requirements' and FRS 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' published January 2012.

those amounts be fixed throughout the price control for each DNO and are not revised through the operation of the Annual Iteration Process.

5.5. We proposed two options for the spreading of adjustments arising from the tax clawback for excess gearing, either (a) the first year of RIIO-ED1 dependent on the quantum; or (b) spread evenly over the eight years of RIO-ED1.

5.6. We proposed to make tax clawback adjustments in RIIO-ED1 annually in line with the Annual Iteration Process, rather than at the next price control.

5.7. We proposed to model tax liabilities and resultant cash flows as being incurred in the year they arise, rather than in accordance with tax legislation, which assumes half in the year incurred and half in the subsequent year.

5.8. We proposed to retain the application of generic attributions of qualifying expenditure to capital allowance (CA) pools.

5.9. We proposed to reset the opening regulatory CA pools at 1 April 2015 based on the DNOs' latest actual returns and forecast for the final year(s) of DPCR5. As part of the Annual Iteration Process we proposed to reset the opening pool balances at 1 April 2015, once the 2014-15 data is available and has been reviewed and moderated for any issues.

5.10. We were minded to switch-off the pass through mechanism for business rates pending the outcome of the next and subsequent revaluation exercises. Where network companies could demonstrate that they have taken reasonable actions to minimise the rating valuations, we would then reactivate the cost adjustment mechanism for the remainder of the price control period. This would bring DNOs onto the same basis as the transmission and gas distribution network operators.

Summary of consultation responses

Modelling tax under FRC proposals

5.11. All respondents agreed with our approach, except one who was concerned with adopting an approach that may not happen in the anticipated timescales. They considered it more sensible to retain the existing approach throughout RIIO-ED1. Another correspondent noted that there could be more than one interpretation of an accounting standard.

Calibration of dead-band for the tax trigger

5.12. Three respondents preferred retaining the DPCR5 approach to calibrating the deadband at 0.33 per cent of base demand revenues, with two supporting our proposal. Another proposed that once the deadband threshold was breached that the whole of the tax trigger effect should be adjusted, not just the amount in excess of the deadband limit.

Period for spreading clawback of tax benefit

5.13. All respondents agreed with our proposal with one commenting that we should follow a similar approach across all incentives and adjustments.

Timing of tax clawback revenue adjustments

5.14. All respondents agreed with our proposal. One was concerned about the impact of the combined annual adjustments through the Annual Iteration Process and the impact on price volatility for consumers; and another that the approach should be consistent across all incentives and adjustments.

Treatment of expenditure for tax modelling

5.15. All respondents agreed with our proposal. Two respondents qualified their agreement proposing that there should be a transitional compensating adjustment in the first year to reflect the change in treatment from DPCR5 to RIIO-ED1, as this would ensure equity between DNOs and consumers.

Modelling of capital allowances

5.16. Three respondents disagreed and wanted us to use to company specific forecasts of attributions of qualifying expenditure to CA pools rather than the generic approach. They consider that setting allocation on an individual company basis would not be more onerous for Ofgem and would result in more accurate tax allowances for licensees. Two respondents agreed. Licensees requested clarity on how the resetting of opening CA pool balances would work, particularly how the proposed moderation would be applied.

Business rates

5.17. Three DNO respondents agreed. A supplier disagreed on the basis that it could lead to perverse incentives if DNOs were to over forecast business rates in their base case. One identified that the government had now deferred the next revaluation to 2017 and proposed that the existing pass-through arrangements be extended to that date and then the proposed basis be introduced. A supplier suggested we amend the spreading to spread the excess over the remaining seven years of RIIO-ED1.

Reasons for our decisions

5.18. As set out above there was broad support for our proposals and we are therefore implementing these proposals. The main area of disagreement was over the use of generic attributions of expenditure to the capital allowance pools.

5.19. We applied this approach in DPCR5 and in the recently announced proposals for the RIIO-GD1 price control. We did this to provide a similar basis for the calculation of tax allowances across the DNOs. We believe that we have provided sufficient capability to reflect the different expenditure profile of each DNO through the use of six categories of totex with separate attributions to tax pools. Although companies will include in their business plans their individual attributions we will determine generic attributions applicable to all DNOs following analysis of the business plans and update business plans accordingly, including those DNOs recommended for the fast-track approach.

5.20. A further issued raised related to our change in approach to the timing of tax payments and the possible disadvantage that a DNO could occur if tax payments are not broadly constant between price controls. To deal with this issue, where a licensee forecasts that it will be materially disadvantaged (20 per cent difference in tax allowances) from this change in 2015-16, they should quantify this in their business plans, proposing a compensating adjustment.

6. Pensions

Chapter Summary

This chapter sets out our decisions on how we will apply our methodology (relating to licensees' defined benefit pension schemes) in the context of RIIO-ED1. The costs of defined contribution schemes are not covered here as they are treated as a constituent element of totex. It also summarises respondents' views on the questions we asked in the consultation.

Summary of decisions

6.1. Our decision, for RIIO-ED1, is to continue, with minor refinements, the methodology that was set out in DPCR5 Final Proposals, our 22 June 2010 Pension document[24] and as refined in our March 2011 RIIO-GD1 and T1 Strategy document Financial Issues Supplement. We have also set out further details in our open letter consultation on our pension deficit allocation methodology (PDAM) [25].

6.2. Our decisions on the issues we consulted on are to:

- Spread the fast money adjustments for ongoing costs arising in DPCR5 and the last year of DPCR4 evenly over the eight years of RIIO-ED1 (on a NPV neutral basis) irrespective of the quantum of the adjustment. Adjustments will be based on actual costs to March 2013 and forecast data to March 2015.
- Make any necessary adjustments arising from the reasonableness review by the Government Actuary's Department (GAD) as part of the resetting the DPCR5 Established Deficit funding allowances. We will spread the true up of the difference between the provisional deficits used to set allowances in DPCR5 and the Established Deficit equally over the remainder of the notional 15-year funding period.
- Introduce our Pension Deficit Allocation Methodology (PDAM) which sets the methodology for the attribution of pension assets and liabilities between the Established Deficit, the incremental deficit and non-regulated deficit.
- Ask licensees to base their Established Deficit funding requirements on the March 2010 valuations (as adjusted for our conclusions from the last reasonableness review published in May 2012) rolled forward to December 2012. A separate non-totex allowance will be provided for the Established Deficit funding and any incremental deficit funding will be included as part of totex. (We will seek to agree valuation amounts with licensees ahead of business plan submissions.)
- Require licensees to submit actuarial valuations as at 31 March 2013, 2016 and 2019 and to reset allowances for the Established Deficit (following completion of the reasonableness review of each valuation) as part of the Annual Iteration Process. Where these dates are not concurrent with their scheme triennial valuations they must submit a roll forward valuation, as defined in our PDAM, from the last full valuation prior to those dates.

[24] Price Control Treatment of Network Operators Pension Costs under Regulatory Principles (76/10) http://www.ofgem.gov.uk/Networks/Documents1/Price_Control_Treatment_of_Pension_Costs_final.pdf
[25] http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=130&refer=Networks

- Share with all network operators and stakeholders our proposed terms of reference for each future reasonableness review of pension costs. These will take into account respondents' views on the conduct and process for the last review.
- Retain the approach set out in DPCR5 Final Proposals (for DPCR6 now RIIO-ED1) for the treatment of both pension scheme administration and Pension Protection Fund (PPF) levy costs at future price controls. These costs will be included within totex with no separate uncertainty mechanism.
- Require licensees to provide details of any de-risking strategies and the use of contingent assets adopted or being considered by their pension schemes and apply our pension principles to the assessment of consumer funding of both, which should demonstrate a future expected benefit to consumers.
- Retain our approach set out in DPCR5 and the June 2010 Pension document to setting the deficit funding rate of return. That is to determine it by a benchmarking process against energy network operators' pre-retirement discount rates as applied in their relevant valuations and moderated against similar rates reported for occupational pension schemes in Great Britain.

6.3. We have reflected our decisions in our pension methodology at appendix 6 and the guidance to our pension principles in appendix 7.

Summary of consultation proposals

Timing of true-up adjustments for DPCR5

6.4. In our September consultation, we proposed to spread the true-up of the difference between the forecast deficits (at 30 September 2009), used to set allowances for DPCR5 and the Established Deficits at 31 March 2010, equally over our notional 15-year funding period. We proposed to do the same for the true-up of actual costs compared to forecast deficit funding costs.

6.5. We also proposed to true-up the DPCR5 ongoing service costs on an NPV neutral basis using the methodology set out in the DPCR5 Final Proposals and to spread the true-up of the fast money element of ongoing service costs arising in DPCR5 when it exceeds £1m per DNO over the period of the RIIO-ED1 price control. Part of the adjustment will be added to the opening RAV (as slow money) and part will be treated as fast money. The DPCR5 efficiency incentive will be applied to the total adjustment. Where the adjustment relies on forecast data, we will adjust revenues for any differences between the forecasts used and the actual costs when reported as part of the Annual Iteration Process.

Determining the Established Deficit

6.6. In our DPCR5 Final Proposals and our 22 June 2010 Pension document, we said we would clarify the methodology for the attribution of a pension scheme's deficit between the established and the incremental deficit at each price control. We highlighted in the consultation that network operators have worked together with us to develop a pension deficit allocation methodology to be applicable to all network operators and that we expected to publish the final methodology shortly. We published the resultant methodology in December 2012 for consultation.

Timing of updated valuations

6.7. We proposed to align the deficit-funding reasonableness reviews across all RIIO controls and to set allowances from 2015 for both fast and slow-tracked companies based on the outcome of the March 2013 valuations and reasonableness review thereon.

6.8. In accordance with our triennial true-up and reset methodology, we proposed to apply the true-up adjustments and reset revenues for both slow- and fast-tracked companies both effective from 1 April 2015. We proposed that should the reasonableness review not be completed in time to be reflected in RIIO-ED1 final proposals, that we would instead reset revenues from 1 April 2016 on an NPV neutral basis.

6.9. In preparing their business plans, we proposed that DNOs should use a roll-forward of their previous full actuarial valuation (ie at 31 March 2009 or 2010) to 31 December 2012.

Deficit

Notional deficit repair period

6.10. We proposed that efficient Established Deficit costs would be funded over the notional 15-year deficit-funding period commencing from 1 April 2010 applying a flat profile over the deficit-funding period allowing a rate of return.

Deficit funding rate of return

6.11. We proposed to derive the deficit funding rate of return from the range of moderated benchmarked pre-retirement real discount rates in network operators' schemes in accordance with our methodology and to reset this rate every three years commencing with the review of valuations at 31 March 2013.

The reasonableness review

6.12. We proposed making any necessary adjustments arising from the last GAD review of network operators' pension costs, as part of the price control process and to apply the latest information at the first reset in 2015.

Resetting allowances during the price control period

6.13. We proposed to undertake a reasonableness review in mid-2014 of the 31 March 2013 valuations and to true-up and reset revenues with effect from 1 April 2015. We will repeat this process every three years thereafter.

Pension Protection Fund levy and pension scheme administration costs

6.14. We consulted on either retaining the approach for RIIO-ED1 as set out in DPCR5 or, for consistency, adopt that proposed for RIIO-T1 and GD1. Our preference was for a common approach across all RIIO price controls.

Deficit values, de-risking strategies and current market conditions

6.15. We said we will keep under review any increase in the burden for consumers from the trend to de-risking DNOs' mature closed schemes.

6.16. We invited views on whether companies should demonstrate how their de-risking strategies are protecting pension scheme funding levels and highlight the potential benefits of these strategies to consumers.

Innovative investment strategies and contingent assets

6.17. We set out in our pension principles at Appendix 7 to the consultation, our proposed approach to both innovative investment strategies, used to manage scheme's liabilities and hedge risks, and contingent assets. Where these were used, we said we will examine each on its merits.

6.18. We highlighted that the use of contingent assets may present issues under the Indebtedness licence condition (dependent on their form) and that their actual costs, will be dealt with on a case-by-case basis. We expect network companies to provide a detailed and robust demonstration that such costs and the expected benefits are in consumers' interests.

Summary of consultation responses

6.19. We have summarised responses according to the questions we set out in the consultation.

Timing of true-up adjustments for DPCR5

6.20. Three DNOs and one supplier agreed with our proposals, with one DNO recommending that a consistent approach across all incentives and adjustments is appropriate and that we should also consider the interaction between the approaches to paying out incentives and profiling.

6.21. One DNO disagreed, preferring that the true up should be funded in-year to recompense the over/under funding arising during DPCR5. Their suggested approach was where the true-up exceeds one per cent of year one base revenue, it should be spread over eight years. The supplier, who agreed, wanted the excess over £1m to be spread over the remaining seven years of RIIO-ED1.

Basis of the reset adjustments

6.22. Six DNOs agreed with our proposals, with one having concerns regarding how any reset adjustments may be calculated. That DNO did not support any change in the basis from an efficiency review to a reasonableness review.

Reasonableness review

6.23. Respondents' views on the review process varied from those considering it was conducted well, or reasonably well to one who considered that the process was not followed and deviations were unacceptable. Most respondents focussed on how future reviews should be conducted. These included having more meetings with companies, including the trustees to discuss their negotiation process, its outcomes and strategies; the need to clearly signpost the time period of each stage of review; and that subsequent questions from us, following publication of our consultants report, should only be necessary to the extent that the scheme has been identified as an outlier.

6.24. One DNO considered that an external review is required because the last reasonableness review offered no opinions and the objective changed from assessing efficiency to assessing whether assumptions were reasonable. This chimed with a supplier whose view was that it was simplistic and not clear that it tested whether pension costs were competitive or efficient.

Pension scheme administration and PPF levy costs

6.25. Two DNOs and a trade union agreed with the preferred option (the RIIO-T1 and GD1 approach), one of them with a de minimis threshold of £0.5m per scheme. One DNO preferred an approach that combined features of both options ie one that would include these costs within the totex Incentive Mechanism and provide a mechanism to adjust for changes in the PPF levy that exceed the threshold, proposed at £0.5m.

6.26. Three DNOs disagreed while two preferred retaining the approach set out in DPCR5, where any variations to allowances are dealt with as part of the totex Incentive Mechanism. The third DNO's view was that pension administration costs are not material and should be a pass-through item unless it can be demonstrated they are not consistent with similar schemes. They also considered PPF levy costs are almost entirely outside the DNO's control and should be a pass-through item.

6.27. A pension advisor said trustees treat administration and PPF costs seriously, whilst a supplier considered that the key is for these costs to be economic and efficient.

De-risking

6.28. Two DNOs and a supplier agreed although the supplier was concerned that, to the extent that DNOs can pass on pension costs to customers, they have a strong incentive to de-risk as they do not have the downside risk faced by other scheme sponsors.

6.29. Four DNOs disagreed, advising that it is impossible to demonstrate which approach will give the best outcome for customers in the future and that it is the trustees of a pension scheme and not the companies that determine its investment approach. There was concern that retrospective testing should not be used to determine whether de-risking strategies were appropriate.

6.30. A pension advisor proposed that the test be re-phrased, as a "balanced approach, consistent with the pensions industry in general and in line with the remaining years of the initial 15-year funding period".

Contingent assets

6.31. Four DNOs and a pension advisor agreed, with a caveat by two DNOs that benefits to consumers must be demonstrated. A supplier wanted clarity on what would constitute a valid demonstration of consumers' interests.

6.32. One DNO disagreed, saying the our approach in the pension principles to assessing the Established Deficit, which had been agreed as part of previous price control reviews, should be applied to determining if the stewardship of schemes is reasonable and efficient.

Revised guidance on our pension principles

6.33. One DNO said the pension principles are still appropriate and are comprehensive, whilst a supplier commented that the guidance is certainly lengthy but it is unclear whether it is adequate for stakeholders to understand.

6.34. DNOs suggested the following changes to the guidance:

- state that the triennial reviews will be undertaken by an independent consultant
- refer to an efficiency review rather than a reasonableness review
- include the definition of regulated and non-regulated activities
- provide a detailed spreadsheet template of how the various true-ups will be applied.

6.35. A supplier suggested that to protect consumers, pension cost assumptions should be set at the market median or five per cent below to take account of the stable, low-risk position of network operators and a strong employer covenant.

6.36. One DNO was concerned that we should not be using their 2009 valuations for setting allowances at RIIO-ED1 as they are now out of date and will have been superseded by 2012 valuations.

Reasons for our decisions

Spreading of true up adjustments for DPCR5

6.37. There are a number of true-up adjustments to be made in respect of DPCR5 that relate to ongoing costs, PPF levies and deficit funding. The mechanics of each adjustment are set out in appendix 6.

6.38. At the previous price control, there may have been an expectation that the fast-money element of the true up adjustments would be made in the first year of RIIO-ED1 and other adjustments spread over the period of the next price control (which had been five years) although at DPCR5 we gave no explicit undertaking over the timing of the true-up adjustments. We do not consider it appropriate to spread fast-money adjustments less than a fixed amount in year one of RIIO-ED1 and the balance over the remaining seven years, as this is not consistent with practice in RIIO controls of spreading all adjustments evenly over the period of the control.

6.39. Our reasons for spreading true up adjustments relating to ongoing costs and PPF levies evenly over the eight years of the next price control, irrespective of the quantum of the adjustment is that we consider that this will provide for greater pricing stability for consumers and is more straightforward to implement. This approach is a variation from our proposal to spread the costs only where they exceed £1m which on reflection we consider to be overly complicated to implement for the sums involved. We will use the appropriate vanilla WACC from the relevant previous control to calculate NPV neutrality up to 1 April 2015 and vanilla WACC as revised under the Annual Iteration Process throughout RIIO-ED1 to ensure that licensees are not disadvantaged by our decision.

6.40. Our reason for spreading the true up adjustments relating to the Established Deficit funding costs evenly over the remaining years of our 15-year notional funding period, using the rate of return for DPCR5, ie 2.6 per cent, is that this matches our methodology for setting the allowances.

Timing of updated valuations

6.41. Licensees are to base their Established Deficit funding requirements in their business plans on the 31 March 2010 valuations (as adjusted following our May 2012 reasonableness reviews) rolled forward to December 2012. This is so that the funding is based on a valuation that has been subject to the last reasonableness review. We consider that this does not advantage or disadvantage DNOs who may have completed or be in the process of completing a subsequent full valuation prior to submission of business plans.

6.42. There may be circumstances where a licensee does not have a prior full valuation as at 31 March 2010 on which to base their roll forward. This may arise, for example, where a scheme has been sectionalised from a larger scheme as part of a corporate transaction. Where the latter is not the case, we require those DNOs to provide a roll forward valuation from the last full valuation, which has been included in our latest reasonableness review, to the relevant review date. If there is not one, then to ensure a reasonable and consistent approach across all licensees and to protect consumers from the use of overly prudent or conservative actuarial assumptions, we will discuss with the licensees concerned the appropriate basis for their forecasting of their deficit funding allowances and true-up of DPCR5 costs.

Reasonableness reviews

6.43. Our reasons for sharing, with all network operators and other stakeholders, our proposed terms of reference (for our independent experts) for the initial high level stage of each future reasonableness review of pension costs is, that we consider this will ensure that the process is open and transparent; and, that we take into account respondents' views on the conduct and process of the last review.

Pension administration costs and PPF levy

6.44. In DPCR5, we set ex ante allowances for PPF levies and scheme administration costs with a true up for efficient costs of the former and the latter being included with ongoing pension service costs. We did this, as it was too late to include ongoing pension costs, PPF levies and scheme administration costs within the benchmarking of total cost for that price control. It was a pragmatic approach to a DPCR5 specific issue in that our decision timetable did not allow time to update the benchmarking. At the time, our view was that the amounts were not material. We remain of this view. We consider that there is now greater certainty over the PPF's new methodology for assessing levies and that the potential for materially increased costs is not as great now as when it was first proposed. In our view, the treatment set out in DPCR5 for subsequent controls remains appropriate.

6.45. Our decision is to retain the approach set out in DPCR5 Final Proposals for the treatment of both pension scheme administration and PPF levy costs at future price controls; ie these costs will be included within totex with no separate uncertainty mechanism.

De-risking

6.46. We consider that to protect consumers, we need to keep under review any increase in the burden for different generations of consumers. This may arise from a combination of the speed and timing of de-risking, the use of conservative valuation and asset return assumptions (particularly for gilts, which have shown negative real returns) and increasing longevity. We understand that efficient de-risking could be substantially funded from efficiencies identified elsewhere within the scheme, eg reducing the level of prudence in assumptions, adopting an internal inflation hedge and cost effective hedging strategies. We will look for evidence of this to support and justify any increases in the burden for different generations of consumers.

6.47. We consider that it is both necessary and reasonable to expect companies to demonstrate how their de-risking strategies are protecting future scheme funding and the benefits that they expect to flow to consumers. To do this, we require licensees to provide details of any de-risking strategies and the use of contingent assets adopted or being considered by their pension schemes.

Contingent assets

6.48. Our decision is to apply our pension principles to the assessment of consumer funding of contingent assets which requires that licensees demonstrate future expected benefits to consumers, not just to themselves or the scheme. Where the costs are borne directly by the licensee, rather than the pension scheme, this assessment may be undertaken separately from the reasonableness review.

6.49. To protect consumers, we expect licensees to be able to clearly identify and evidence the quantum of forecast costs for which allowances are sought and actual costs where they expect a subsequent true up. As each case may be unique to a specific licensee, we will deal with each case on its merits and apply our pension principles in our assessment.

Revised guidance on our pension principles

6.50. Under RIIO price controls, our pension principles remain the same as previously set out. We have, of necessity, refined the guidance notes and our pension methodologies to take account of developments in the pension arena. The guidance sets out how we intend to apply them to Defined Benefit pension schemes in RIIO price controls.

6.51. As requested by respondents, we have clarified our funding commitment (in principle one) and approach to de-risking strategies and contingent assets.

7. Annual Iteration Process

Chapter Summary

This chapter sets out our proposals for an Annual Iteration Process which would allow base revenue to be updated annually in the light of the performance and output levels achieved by each DNO.

Our decision

The Annual Iteration Process

7.1. The RIIO-ED1 price control will include an Annual Iteration Process. This will allow base revenues to be updated during the price control in light of the performance and output levels achieved by DNOs. Under the proposed Annual Iteration Process, base revenues would be remodelled using a series of revised variable values. The process would calculate an incremental change to base revenue, the 'MOD' term, which would be advised by 30th November preceeding each regulatory year.

7.2. The rules for determining revised variable values and for carrying out the Annual Iteration Process would be contained in special conditions of the RIIO-ED1 licences and in the Price Control Financial Handbook. The Price Control Financial Model and Handbook (the Financial Instruments) are proposed to be incorporated into licences and subject to formal modification procedures. The Financial Instruments would be published on the Ofgem website to promote transparency and so that stakeholders can use them for revenue and charging forecasts.

Summary of consultation responses

7.3. We set out the proposed arrangements for the Annual Iteration Process and invited views from interested parties.

7.4. A DNO welcomed the Annual Iteration Process and another said it is logical though they need to see a live worked example.

7.5. Another DNO said the Annual Iteration Process is now sufficiently detailed and understood but concerns remain about the scale of the total value of annual adjustments.

7.6. It was proposed that it would be sensible to introduce a one or two year lag to actual changes in revenues, as Ofgem does for most incentive revenues, enabling base revenues to be updated during the price control in light of the performance and output levels achieved by DNOs.

7.7. The following other views were received from DNOs:

- a firm specific date earlier than 30 November would be preferred for charge-setting purposes
- the notification period of the variable values direction should be increased from two weeks to four.

Summary of Annual Iteration Process arrangements

7.8. The remainder of this chapter sets out the arrangements for the Annual Iteration Process.

Adjustments to base revenues during RIIO price control periods

7.9. The RIIO-ED1 price control covers an eight-year period, providing a longer period of settled price control arrangements than the five-year period under the RPI-X price controls regime. In the RIIO approach the DNO's allowed revenues should reflect its performance under incentive schemes, its innovativeness, and the network operation outputs that it achieves. Under RPI-X, base revenue allowances were fixed at the outset of the five-year price control period; for eight-year RIIO price controls we need a way to remodel base revenue allowances on an annual basis.

7.10. We propose to achieve this through an Annual Iteration Process for the Price Control Financial Model (PCFM) under a governance regime set down in the price control licence conditions and the supporting Price Control Financial Handbook.

7.11. Opening base revenue levels (PU values) for each DNO (for each year of the RIIO-ED1 price control period) will be determined using values and parameters contained in the PCFM, consistent with the RIIO-ED1 Final Determination. They will also be set down in the allowed revenue price control licence condition for each DNO. Base revenue is the largest component of a DNO's overall allowed revenue under the price control arrangements - typically over 80 per cent of the total.

7.12. The Annual Iteration Process for the PCFM will generate a value for the modification term MODt, which serves to adjust the DNO's opening base revenue each year, as illustrated in the simplified formula below:

Base revenue for year t (BRt) = opening base revenue for year t (PUt) + MOD for year t (MODt).

The Price Control Financial Instruments

7.13. The handbook and PCFM are collectively referred to as the Price Control Financial Instruments ("the financial instruments"). The financial instruments are proposed to be incorporated into a new 'Governance of Price Control Financial Instruments' licence condition' and will be subject to a formal modification process set out in that condition. However, in any case of conflict of meaning the following order of precedence will apply:

i. the licence
ii. the handbook and constituent methodologies
iii. the PCFM.

7.14. The proposed modification process for the financial instruments provides for similar features as were included in RIIO-T1 and GD1, ie:

- modifications which are not expected to have a significant impact on stakeholders to be made by the Authority, subject to a 14 day notice period
- modifications which are expected to have a significant impact on stakeholders to be made in accordance with section 11 of the Electricity Act 1989 as applicable.

7.15. DNOs would have the right to represent that a modification should not be made under the 14 day notice process where they reasonably consider that a modification would have a significant impact on stakeholders.

7.16. We propose to keep copies of the PCFM and the handbook on the Ofgem website, allowing DNOs and other interested stakeholders to:

- reproduce the calculation of MODt each year using the revised variable values directed by the Authority
- use their forecasts of PCFM Variable Value revisions (see next section) to carry out revenue sensitivity analysis.

7.17. The proposed PCFM has been designed to be as user-friendly as possible for these purposes.

The Annual Iteration Process for the PCFM

7.18. The proposed PCFM is contained in an Excel® workbook which includes a PCFM Variable Values Table on the input sheet, specific to each DNO. The PCFM Variable Values Table is arranged with:

- columns - one for each year of the RIIO price control period
- rows - one for each type of PCFM Variable Value.

7.19. The Annual Iteration Process involves a re-running of the calculation functions in the PCFM by Ofgem, after a defined range of PCFM Variable Values have been revised in accordance with provisions contained in the price control licence conditions and in relevant chapters of the handbook.

7.20. The basis for determining a PCFM Variable Value revision may be:

- a formula in a licence condition
- an application/review process set out in a licence condition
- a detailed methodology described in the handbook.

7.21. In all cases, however, the name and purpose of a PCFM Variable Value will be specified in the relevant special condition, and a description of its effect under the Annual Iteration Process will be given in the methodology chapters of the handbook.

7.22. The PCFM for RIIO-ED1 is proposed to operate in a constant 2011-12 price base. This means that all revisions to monetary PCFM Variable Values would be input in 2011-12 prices and the relevant licence conditions and handbook methodologies will provide for this.

Types of adjustment under the Annual Iteration Process

7.23. The incorporation of the Annual Iteration Process into the RIIO-ED1 price controls means that timely adjustments can be made to DNOs' base revenue allowances in respect of:

- tax, pensions and cost-of-debt factors (specified financial adjustments)
- allowed totex for various aspects of network operation;
- the totex Incentive Mechanism (TIM)
- the close-out of financial adjustments relating to previous price control periods (legacy price control adjustments).

7.24. A key advantage of this approach is that changes to allowed totex expenditure will be subject to the RIIO equalised incentives approach (fast/slow money treatment) on a prompt basis. In addition, financial adjustments represented by PCFM Variable Value revisions will interact fully with other modelling factors under the Annual Iteration Process.

7.25. PCFM Variable Values can be:

- Revenue allowance amounts
  This type of PCFM Variable Value relates for example to pension and tax cost allowances. These amounts are determined off-line under methodologies contained in the handbook.

- Allowed expenditure figures
  This type of PCFM Variable Value relates to categories of allowed totex expenditure which can be varied during the price control period. A revised allowed expenditure figure overwrites the existing one for the regulatory year concerned. These amounts are modelled, subject to the regulatory capitalisation rate, as:

  o fast money – flowing directly to the base revenue figure for the relevant/regulatory year to which the allowed expenditure relates

  o additions to the DNO's RAV in the relevant year to which the allowed expenditure relates, generating a slow money adjustment to allowed revenues through the allowed return, depreciation and totex incentive mechanism.

- Percentage
  This type of PCFM Variable Value relates only to the cost of corporate debt.

- True-up revenue allowances
  This type of PCFM Variable Value relates to revenue adjustments due from the close out of

legacy (pre-RIIO) price control mechanisms.

- True-up RAV additions
  This type of PCFM Variable Value relates to RAV balance adjustments due from the close out of legacy (pre-RIIO) price control mechanisms.

The handbook includes a table listing each PCFM Variable Value, indicating the licence condition in which it is specified and its type.

Calculation of the value of MODt

7.26. Under the Annual Iteration Process, the base revenue figure for each DNO, for each year of the price control period, is remodelled using the latest revised set of PCFM Variable Values. The remodelling includes all of the consequential effects of variable value revisions. For example, PCFM Variable Value revisions reflecting increased levels of allowed totex expenditure might trigger a change to the modelled allowance for notional new equity issuance. Consequential adjustments of this kind for the RIIO-ED1 PCFM would be in accordance with the RIIO-ED1 Final Determination and would feed through into the value of the term MODt produced as the output of the Annual Iteration Process.

7.27. The PCFM functionality applies appropriate time value of money adjustments wherever PCFM Variable Values for regulatory years before regulatory year t are revised. If we only changed the PCFM Variable Values on a single occasion during the price control period, the value of the term MOD for each regulatory year would be the difference between the originally modelled value of base revenue for that year and the remodelled value.

7.28. However, each Annual Iteration Process can involve the revision of PCFM Variable Values across a range of years, including values for earlier years, which might have been revised on a previous occasion. The PCFM functionality is designed to deal with this, and takes account of previously directed values of MOD in bringing forward the effects of re-modelling calculations to the extant value of MODt (see also the section on timetable for the Annual Iteration Process below). This means that once the value of the MOD term for a particular regulatory year has been directed, it is not subsequently changed as a result of later Annual Iteration Processes.

Timetable for the Annual Iteration Process.

7.29. The Annual Iteration Process for the PCFM is proposed to take place by 30 November each year. On or before that date, or if that is not possible, as soon as is reasonably practicable thereafter, we would publish a direction to each DNO setting out:

- any revisions to PCFM variable values for the Annual Iteration Process
- a complete, updated copy of the PCFM Variable Values Table for the DNO
- the value of the term MODt for the DNO.

7.30. The MOD term is used to adjust the opening base revenue figure for each regulatory year t during the price control period. References to regulatory years are made relative to that usage so that, for example, in a context where MODt applied in the formula for base revenue in 2015-16, a reference in the same context to regulatory year t-1 would mean 2014-15 and so on.

7.31. Should any change in PCFM functionality be necessary during the course of the RIIO-ED1 price control, it would be governed by the formal modification process as set out in the handbook. The cut off date for updating functional changes to the PCFM is expected to be 30 September each year.

7.32. The Annual Iteration Process takes place in regulatory year t-1 (relative to regulatory year t in respect of which a value for MODt is being calculated).

7.33. The proposed summary timeline for the Annual Iteration Process is:

- 31 July - deadline for submission of price control data by DNOs
- 30 September - cut off for functional modifications to the PCFM
- 31 October - cut off date for establishing data needed to determine PCFM Variable Values
- by 15 November notify DNOs of proposed PCFM Variable Values
- by 30 November direct PCFM Variable Values and complete Annual Iteration Process and direct values for MODt.

7.34. This timeline is driven by two constraining factors. Firstly, the process must begin late enough so that price control data for regulatory year t-2 (relative to the regulatory year for which MODt is being determined) can be obtained and validated. Secondly, the Annual Iteration Process must be completed early enough so that DNOs can prepare indicative use of system charging statements for publication by 31 December (in regulatory year t-1). We will, however, strive to complete each stage of the Annual Iteration Process as early as possible each year.

7.35. The drafting of the licence conditions and methodologies in the handbook will set out the regulatory years (columns on the PCFM Variable Values Table) in respect of which each type of PCFM Variable Value will normally be revised. However, they also provide for PCFM Variable Values to be revised for other years (columns) when necessary. This provides the flexibility needed to deal with data errors or omissions. The Annual Iteration Process for the PCFM will appropriately bring forward the effect of any such revisions in the calculation of the latest value for the MOD term.

Appendices

Appendix 1 – Summary of consultation responses

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

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

Chapter 2: Allowed return

Question 1: Is our approach for setting the allowed return appropriate, particularly in the context of an eight-year price control?

1.3. A supplier and two DNOs agreed while four DNOs disagreed.

1.4. Those who disagreed suggested that for the cost of equity an eight-year price control is more risky than a five-year. However, there is no evidence for this.

1.5. As regards the cost of debt, those who disagreed with our approach said that a ten-year average is too short a period and that we need to provide an allowance for debt issuance costs. These are both under consideration by Ofgem.

1.6. One DNO suggested current proposals for adjusting DNOs' revenues to reflect this uncertainty will not provide sufficient cost and/or price certainty for companies.

1.7. A supplier supported Ofgem's general approach to setting the allowed WACC for an eight-year price control, including use of debt indexation and a CAPM approach to the cost of equity, cross checked to market evidence. It was wary of 'cherry-picking' of often poorly supported theories to adapt the CAPM in one direction, and considered that it is more important to cross-check CAPM to market evidence obtained from transactions, share price data and City equity analyst comment.

1.8. A supplier agreed with Ofgem's caution about pro-cyclicality of returns, noting that the evidence on returns and growth is unclear.

Question 2: What considerations do we need to take into account when setting the notional gearing level?

1.9. DNOs said we need to take into account risk exposure; credit rating metrics for financeability analysis; the size of equity; the need to maintain a credit rating; the scale of investment; and cashflow.

1.10. A supplier expressed some concern that Ofgem’s principles-based approach focuses on general risk but is missing a step to consider the wider factors considered by credit rating agencies which enable an efficient regulated entity to support a higher level of gearing. Hence, Ofgem should consider a relatively high starting point for gearing and consider downward adjustment only where clearly warranted by material financeability concerns.

Question 3: Is our proposed mechanism for annually updating the cost of debt assumption based on an index appropriate?

1.11. Two DNOs disagreed and four DNOs agreed but suggested adjustments.

1.12. Adjustments to the mechanism were suggested to recognise:

- the cost of issuing debt;
- that a ten-year trailing average does not reflect efficient financing;
- that embedded costs are not taken into account.

1.13. Suggested alternatives to a ten-year trailing average were:

- an index based on a twenty-year trailing average; or
- a longer weighted average of yields which continues to expand until it becomes a twenty-year trailing average.

1.14. The DNOs who disagreed said:

- no index matches a company’s debt profile especially those which issue at irregular dates and in relatively large amounts like UK DNOs; and
- they favour increasing the cost of equity to recognise increased debt risk or an additional allowance to cost of debt.

1.15. A supplier supported Ofgem’s general approach to setting the allowed WACC including use of debt indexation. The supplier would expect the cost of debt update to be run in a consistent process with the RPI indexation updates.

Chapter 3: Assessing financeability

Question 1: Have we identified the correct equity and credit metrics?

1.16. Three DNOs agreed and three DNOs agreed but suggested additional metrics.

1.17. The additional metrics suggested were dividend cover; FFO lease adjusted leverage; and EBITDA / interest coverage.

Question 2: Do the rating agency credit metric levels quoted provide the most appropriate levels?

1.18. Three DNOs agreed and two DNOs agreed but suggested that the RIIO-ED1 package could result in credit agencies requiring stronger ratios to maintain the same credit rating, although there is no evidence for this.

1.19. No other responses were received.

Chapter 4: Regulatory asset value (RAV)

Question 1: Do you agree with our approach for the calculation of the percentage of Totex allowed into RAV?

1.20. One DNO agreed, one partially agreed and three disagreed.

1.21. The DNO that partially agreed said the approach was a good starting point but should recognise that the capitalisation rate provides another tool to ease financeability issues.

1.22. Those DNOs that disagreed said:

- phased changes in capitalisation are needed;
- a link between RAV and fixed asset additions per statutory accounting rules would be constructive; and
- historical and projected actual capitalisation rates should be used, with flexibility where there are financeability concerns.

1.23. A supplier disagreed with a Totex approach, saying a move away from capex might impact efficient financing decisions and that this is an important issue which stakeholders should be consulted on.

Question 2: Do you agree with our revised approach to Totex and with the costs that are included and excluded?

1.24. Three DNOs agreed and three partially agreed.

1.25. There was general agreement with the revised approach except that:

- traffic fines and street-works penalties should be included;
- incremental deficit costs should not be included as part of the efficiency incentive.

Question 3: We invite views on whether the definition of related parties should exclude captive insurance companies and whether our proposed approach is proportionate?

1.26. Four DNOs agreed that the definition should exclude captive insurance companies.

1.27. One DNO agreed that the approach is proportionate; no other comments were received.

Chapter 5: Taxation

Question 1: Do you agree with modelling tax under the FRC proposed accounting frameworks for financial reporting in the UK with any changes to be subject to the tax trigger?

1.28. Three DNOs agreed, and one agreed with a caveat that there can sometimes be more than one interpretation of an accounting standard.

1.29. One DNO disagreed saying we should model on the basis of the current approach applying throughout RIIO-ED1.

1.30. One DNO commented that they have adopted EU-IFRS for their statutory accounts.

Question 2: We invite views on the calibration of the dead-band?

1.31. One DNO supported the calibration of the dead-band.

1.32. Other DNOs preferred the DPCR5 approach: one said we should keep the dead-band at 0.33 percent of allowed revenues; another said we should maintain the tax trigger approach from previous price controls with a fixed dead-band; another said we should keep the simple DPCR5 trigger.

1.33. A DNO agreed the materiality of the proposed dead-band calibration level is at an appropriate value to adjust for changes to taxation. However, once the dead-band threshold is breached they believe that the whole of the tax trigger should be adjusted, not just the amount in excess of the dead-band limit.

Question 3: Do you agree that clawback of the tax benefit of excess gearing in DPCR5 should be spread over the eight years of the RIIO price control? If not, which alternative option do you prefer?

1.34. Four DNOs agreed with one commenting that this should be done once any clawback relating to the last year of DPCR5 is known.

1.35. One DNO said it depends on the approach adopted for other similar items; a consistent approach across all incentives and adjustments would be appropriate under RIIO.

Question 4: Do you agree that the revenue adjustment for tax clawback should be applied annually as part of the Annual Iteration Process?

1.36. Three DNOs agreed.

1.37. One DNO had concerns about the scale of the combined annual adjustments through the iteration process and the impact of price volatility for consumers.

1.38. Another DNO reiterated that a consistent approach across all incentives and adjustments would be appropriate under RIIO.

Question 5: Do you agree with our treatment of expenditure for tax modelling including the cash flows of corporation tax payments?

1.39. Three DNOs agreed.

1.40. One DNO agreed but is seeking a compensating adjustment in first year to reflect the change in treatment from DPCR5 to RIIO-ED1.

1.41. Another DNO agreed but said the transition between approaches must be implemented to ensure equity between DNOs and customers.

Question 6: Do you agree with modelling of expenditure subject to capital allowance and capital allowance pool balances?

1.42. Two DNOs agreed but one is seeking clarity regarding the resetting of tax balances based on the March 2015 data and the moderation of the data that will be completed.

1.43. Three DNOs disagreed. One said company specific allocations should be used for all areas of costs rather than industry averages for direct costs with company specific for indirect costs.

1.44. Another DNO disagreed with the application of generic attributions to capital allowance pools. Likewise, another DNO said we should set capital allowance allocations for each individual company.

Question 7: Do you agree with our proposal for funding business rates?

1.45. Three DNOs agreed, one adding a proviso that Ofgem ensures a reasonable assessment of actions DNOs take to reduce business rates at the revaluation.

1.46. A fourth DNO agreed but expressed the view that it places more risk on DNO businesses.

1.47. One DNO disagreed, saying it is not clear how long the mechanism to recover the difference between actual and assumed rates will be switched off, or how long the revaluation exercise may take; it would be more straightforward to keep the mechanism turned on but make any adjustments through the Annual Iteration Process.

1.48. A supplier disagreed because it could lead to a perverse incentive if DNOs over-forecast rates in base allowance.

Chapter 6: Pensions

Question 1: Do you agree that the fast money true-up adjustments for DPCR5 should be spread over the eight years of the RIIO-ED1 price control if they exceed £1m per DNO? If not, which alternative option do you prefer?

1.49. Three DNOs agreed.

1.50. One DNO reiterated that a consistent approach across all incentives and adjustments would be appropriate and said we should also consider the interaction between the approaches to paying out incentives and profiling.

1.51. One DNO disagreed; their preference would be for the true-up to be applied in year one as this is over/under funding during DPCR5 and should be corrected as soon as possible. Their suggested approach: if the true-up exceeds 1% of year one base revenue, spread over eight years.

1.52. A supplier agreed but said we should alter to spread the 'excess' over the remaining seven years.

Question 2: Do you agree with our proposals for the basis for the first and subsequent reset adjustments?

1.53. Five DNOs agreed.

1.54. Another DNO agreed but had concerns regarding how any reset adjustments would be arrived at, and did not support any change in the basis from an efficiency review to a reasonableness review.

Question 3: We invite views from interested parties on how we conducted the latest pension reasonableness review, with a view to understanding what elements of the review were conducted well, what could be improved and what should be done differently in future reviews?

1.55. A supplier said the GAD review was simplistic and it is not clear if it tests if pension costs are competitive or efficient.

1.56. The following responses were received from DNOs:

- There would be tension between trustees and their sponsor as trustees will always be guided more by the pension regulator rather than Ofgem;
- More meetings are needed with companies to include trustees to discuss negotiation outcomes and strategies;
- The process was not followed and deviations were unacceptable;
- The review was conducted well;

- It is inappropriate to draw specific conclusions in respect of any scheme without further detailed consultation, given that strategy is scheme specific;
- Propose in future reviews that Ofgem clearly signposts the time period of each stage of review;
- The review was conducted reasonably well;
- Further queries following the GAD report should only be necessary to the extent that the scheme has been identified as an outlier;
- An external review is required as the reasonableness review offered no opinions and the objective changed from assessing efficiency to assessing whether assumptions were reasonable.

Question 4: We invite views on which of the options for pension scheme administration costs and Pension Protection Fund levies we should adopt; and, if our preferred approach were adopted, the methodology itself, and the level of the de minimis thresholds?

1.57. Two DNOs agreed with the preferred option, one of them with a de minimis threshold of £0.5m per scheme.

1.58. One DNO preferred an approach that combines features of both options: include pension scheme administration and PPF levy within the cost efficiency sharing mechanism; provide a mechanism to adjust for changes in the levy, which exceed the threshold; threshold should be £0.5m.

1.59. Two DNOs disagreed, saying we should retain the DPCR5 approach where any variations to allowances are dealt with as part of the Totex incentive mechanism.

1.60. A third DNO disagreed, saying pension administration costs are not material and should be a pass-through unless it can be demonstrated they are not consistent with similar schemes. PPF levy costs are almost entirely outside the DNO's control and should be a pass-through to customers.

1.61. A trade union preferred the approach introduced in RIIO-T1 and GD1.

1.62. A pension's advisor said trustees treat administration and PPF costs seriously.

1.63. A supplier said the key is for these costs to be economic and efficient..

Question 5: Do you agree that companies must demonstrate a robust approach as to how their de-risking strategies, especially if aggressive, are protecting future scheme funding and that they should clearly demonstrate the benefits that they expect to flow to consumers?

1.64. Two DNOs agreed.

1.65. Four DNOs disagreed, saying:

- It is impossible to demonstrate which approach will give the best outcome for customers in the future
- It is the trustees of a pension fund and not the companies that determine its investment approach
- Retrospective tests should not be used to determine whether de-risking strategies were appropriate.

1.66. A pensions advisor proposed that the test be rephrased.

1.67. A supplier agreed saying that to the extent that DNOs can pass on pension costs to customers, they have a strong incentive to de-risk as they do not have the downside risk faced by other scheme sponsors.

Question 6: Do you agree that the costs of contingent assets be funded if clearly demonstrated to be in consumer's interests?

1.68. Four DNOs agreed, with two saying if benefits to consumers can be demonstrated.

1.69. One DNO disagreed, saying the principled approach to assessing the Established Deficit agreed as part of previous price control reviews should be used to determine if the stewardship of schemes is reasonable and efficient.

1.70. A pension advisor agreed.

1.71. A supplier said it was not at all clear what would constitute a valid demonstration of consumers' interests.

Question 7: We invite views on whether the revised guidance to our pension principles and the methodology is comprehensive and adequate for DNOs and stakeholders to understand how the principles will be applied in RIIO controls and for network companies to prepare their business plan.

1.72. A supplier commented that the guidance is certainly lengthy but it is unclear whether it is adequate for stakeholders to understand.

1.73. One DNO said the pension principles which are in place are still appropriate and are comprehensive.

1.74. A DNO said they require a detailed spreadsheet template of how the various true-ups will be applied.

1.75. Another DNO said the 2009 valuations will have been superceded by 2012 valuations.

1.76. DNOs suggested the following changes to the guidance:

- the guidelines should state that the triennial reviews will be undertaken by an independent reviewer;
- the guidance should refer to an efficiency review rather than a reasonableness review;
- the guidance should include the definition of regulated and non-regulated activities.

Chapter 7: Annual Iteration Process for base revenue

Question 1: We invite views from interested parties on the proposed Annual Iteration Process (AIP).

1.77. A DNO welcomed the AIP and another said it is logical though they need to see a live worked example.

1.78. Another DNO said the AIP is now sufficiently detailed and understood but concerns remain about the scale of the total value of annual adjustments.

1.79. It was proposed that it would be sensible to introduce a one or two year lag to actual changes in revenues, as Ofgem does for most incentive revenues.

1.80. The following other views were received from DNOs:

- a firm specific date earlier than 30 November would be preferred for charge-setting purposes;
- the notification period of the variable values direction should be increased from two weeks to four.

Appendix 2 – Regulatory asset value (RAV) methodology

Computing the RAV

1.1. The RAV is a key building block of the price control review. RAV is a financial construct for providing funding for costs over a prolonged period and represents the value upon which the companies earn a return in accordance with the regulatory allowed return and receive a depreciation allowance.

1.2. Updated RAV values for each DNO will be included within the PCFM which will be published each year as part of the Annual Iteration Process. We add all costs on a normal accruals basis. The definition of normal accruals will be set out in the Reporting Instructions, prepared and amended in accordance with the licence conditions.

Definition of totex

1.3. The annual net additions to RAV will be calculated as a fixed percentage of totex. totex consists of all economical and efficiently incurred expenditure relating to a DNO's regulated distribution business with the exception of:

- pension deficit repair payments relating to the Established Deficit (see Chapter 4) and for the avoidance of doubt, all unfunded early retirement deficiency costs (ERDC) after 1 April 2004 all costs associated with specific non-totex incentive schemes (including associated pension costs), eg NIA/NIC
- all statutory or regulatory depreciation and amortisation
- interest, other financing (including costs of derivatives, hedges and swaps, and tax costs (except for business rates on non-operational buildings and stamp duty land tax); and reversing, where appropriate, any cost reporting which is not on a normal accruals basis.
- all additional costs relating to rebranding a company's assets or vehicles following a name or logo change
- all costs related to or arising from a change of ultimate controller, eg reconstructions and reorganisation
- fines and penalties incurred by the network company (including all tax penalties, fines or interest and Traffic Management Act fines or penalties)
- compensation payments made in relation to standards of performance
- bad debt costs and receipts (subject to an ex post adjustment to allowed revenues)
- any asset revaluation amounts
- costs in relation to pass-through items, including business rates (except for business rates on non-operational buildings), Ofgem licence fees, Shetland Balancing costs, wheeled units and all transmission connection point charges
- profit margins from related parties (except where permitted as defined below)
- any residual costs falling within the DPCR5 distributed generation (DG) scheme (except as an agreed transfer from the DG mechanism)
- any residual costs from the DPCR4 registered power zone (RPZ) incentive scheme

- all costs associated with specific incentive schemes (including related normal ongoing pension service costs and incremental deficit funding costs), eg NIA/NIC
- all costs of services directly remunerated by customers including contestable connections, legacy metering, out of area services, de minimis activities, and those services which have previously been referred to as excluded services other than ES7 'miscellaneous excluded services' (see 1.20).

1.4. It should also be noted that:

- any change in the totex amount for the licensee under the TIM is included as an adjustment to fast/ slow money
- pension deficit repair payments relating to any incremental deficit (ie not part of the Established Deficit) are considered to be part of the licensee's labour costs and as such are part of totex
- customer contributions (which mainly relate to connection works) and other proceeds received (including from legal and insurance claims) that relate to the distribution business are treated as an offset to totex expenditure, unless specifically subject to different treatment under the cost and revenue RIGs.

1.5. Costs included in totex are all intended to refer to costs incurred by the DNO or a related party of the DNO undertaking regulated distribution business activities where those costs are recharged to the DNO, but do not include any internal profit margins of the DNO or related party margins, except where permitted. The treatment of related party margins is set out below.

1.6. Costs that are eligible for logging up or reopener mechanisms will follow the totex treatment as set out above. However, there will also be a separate table in the Regulatory Reporting Instructions so that the value of these items are separately recorded to facilitate any adjustment to revenue as part of the review of costs or any reopeners that have been triggered.

Deductions from RAV

1.7. The following items are not included in the costs added to the RAV or totex but are directly netted off additions to the relevant cost categories in carrying out the RAV roll forward calculation:

- cash proceeds of sale (or market value of intra-group transfer) of operational assets – by netting off the proceeds from the calculated additions to RAV
- cash proceeds of sale of assets as scrap – by netting off the proceeds from the calculated additions to RAV
- amounts recovered from third parties in respect of damage to the network – by netting off the proceeds from the calculated additions to RAV.

Other totex requirements

Efficient costs

1.8. Ofgem reserves the option to disallow costs from totex and, hence RAV, if they do not relate to the regulated business or are demonstrably inefficient or wasteful. We will specifically review all costs in relation to restructuring of a company's business or operations in relation to corporate transactions, including the associated redundancy costs to satisfy ourselves that these costs are efficient and will deliver future savings for the benefit of consumers.

Restated costs

1.9. For all costs, in whatever category, activity or exclusion, where a company makes any restatement of costs, we will apply these to the year in which they were originally incurred rather than in the year of the restatement. This treatment aligns with the Annual Iteration Process methodology.

Related party costs

1.10. Costs are only included to the extent they represent the cost of services required by the DNO's business. Costs for services recharged to the DNO by a related party will only be admissible if the DNO would otherwise have needed to carry out the service itself or procure it from a third party. We will expect these services and associated costs to be itemised and justified. Such costs are only included to the extent that they satisfy the criteria regarding the prohibition on cross-subsidy in the relevant regulatory instructions and guidance. Where DNOs already hold derogations to cover the charging and reporting of specified shared services between two or more DNOs or other NWOs under common ownership, then the derogations have preference over these requirements.

1.11. All companies and related parties charging the DNO should be able to demonstrate they have a robust and transparent framework governing the attribution, allocation and inter-business recharging of revenues, expenses, assets and liabilities. There should be documented procedures to demonstrate compliance with EU Procurement directives and national legislation where these apply.

1.12. We would expect the network company to be able to justify the charge by reference to external benchmarking, or by reference to market-related testing, or tendering. We would expect related parties to be able to support their charges by either service level agreements or contracts; and that such contracts would be finalised on a timely basis and not remain in draft for an unreasonable period.

1.13. The attribution of costs relating to shared services must be on a demonstrably objective basis, not unduly benefiting the regulated company or any other company or organisation and be based on the levels of service or activity consumed by each entity. We expect DNOs to document the basis on which they approve these at board level and provide evidence of this together with details of how the continuing annual assessment and challenge, takes place.

1.14. The basis should be consistent from year to year and where there are changes the DNO should document and justify them. The method used to attribute costs from the related party to the DNO and to activities should be transparent and the revenues, costs, profits, assets and liabilities separately distinguishable.

Related party margins

1.15. We will exclude related party profit margins from costs added to RAV unless the related party concerned earns at least 75 per cent of its turnover from sources other than related parties and charges to the licensed entity are consistent with charges to external consumers. For this purpose, an entity we consider a related party if it is an Affiliate or Related Undertaking or if that entity and the network company have any other form of common ownership. A key indicator of entities being in common ownership is that they are affiliates of the Ultimate Controller (or controllers where there is more than one). The definition of related party will exclude captive insurance companies whilst not allowing any excess losses (to the extent that they are covered by captive insurers) to be funded by consumers. This protects consumers whilst allowing network operators to act in an efficient manner.

1.16. When an entity ceases to be a related party, for example on a change in ultimate controller, then from the time it ceases to be a related party its margins will be allowable, if it meets the following requirement. There must be an unambiguous demonstration that its charges to the distribution business (in the original or amended contract) remain competitive and are in line with market rates, or the contract was re-tendered and there was more than one bidder.

1.17. Whilst not precluding other demonstrations of competiveness, we consider that an open competitive tender is likely to be the clearest indicator. In the absence of an open competitive tendering exercise, we will seek strong evidence that the terms of any contract are competitive.

1.18. Irrespective of whether the DNO demonstrates competition and they no longer disallow margins, the DNO must arrange to comply with the requirements of the relevant standard or special licence condition (on the maintenance and provision of information). It must continue to report the former related party's costs and margins as if it were still a related party for the remainder of the price control period. The data is required in order for us to be able to monitor performance against the price control and carry out cost analysis to inform future reviews.

1.19. Where a principal related party resource provider ceases to be a related party during a price control period, for example on the restructuring of a group, we shall continue to treat them as a related party until the end of that price control period and we will continue to disallow the margins charged. At the next price control period the margins will be allowed provided that there is unambiguous demonstration that the charges to the distribution business (in the original or amended contract) remain competitive and are in line with market rates, or that the contract is re-tendered and there is more than one bidder.

Adjustments for outturn variance on miscellaneous excluded services

1.20. There will be an ex post adjustment to totex in respect of the difference between forecast and out-turn activity levels for miscellaneous excluded service (ES7) for item 1 below. We allow DNOs to set charges for excluded services at a level that allows them to recover their reasonable costs in providing the service with a reasonable margin of profit. The reasonable costs are comprised of two elements:

1. a share of the asset or operating cost funded by DUoS consumers
2. the incremental cost of providing the service.

1.21. Item 1 will be rebated to consumers via an adjustment to the DNO’s totex. Item 2 will not be adjusted provided the costs can be clearly identified from all other costs. The reasonable margin of profit will not be subject to adjustment provided it is demonstrated to be reasonable.

RAV calculation 2013-14 and 2014-15

1.22. The RAV additions used in determining allowed revenues for RIIO-ED1 will rely on company forecasts for 2013-14 and 2014-15 in their business plans. In the event that actual RAV additions for these years turn out to be different to the estimates, we will adjust the RAV through the Annual Iteration Process.

1.23. An assessment of the efficiency of any totex spend will be carried out as part of the Price Control review work. We will make adjustments relating to DPCR5 at that time, if appropriate.

Appendix 3 – Tax methodology

Overriding principle

1.1. We model each regulated business for price control purposes as a standalone entity. We treat all expenditure as incurred directly by the regulated business. For this purpose, we consider each electricity distribution network to be an individual regulated business.

Applicable tax regime and accounting regime

1.2. We apply the UK standard tax rules that have passed into legislation at the time of the price control final proposals, together with any relevant Government proposed changes. As in DPCR5, any subsequent revision or non-implementation of proposals will fall within the tax trigger mechanism.

1.3. We will model tax as at 1 April 2015 based on the revised draft proposals of the Financial Reporting Council (FRC) for the future financial reporting in the UK. Broadly, this means that companies would follow, from 1 April 2015, EU-IFRS (International Financial Reporting Standards as adopted by the European Union), if they had already adopted it for the statutory accounts. For companies that have not yet adopted EU-IFRS, the 'new' UK GAAP (Generally Accepted Accounting Principles) accounting framework will apply. New UK GAAP is based on IFRS for small and medium-sized enterprises, with certain exceptions, and retains some existing UK GAAP treatment. Any deferral of the new UK accounting frameworks that affects the tax assumptions we have made would be a tax trigger event.

1.4. We assume that all capital allowances are claimed at rates in line with current legislation and, except for deferred revenue, is claimed in the year the expenditure is incurred. Deferred revenue is allowed as tax deductible on a straight-line basis over 45 years.

Capital Contributions

1.5. The treatment of capital contributions under EU-IFRS/new UK GAAP requires that these are to be amortised to the income statement and shown as revenue. The Capital Allowances Act 2001 section 532, requires that these capital contributions and/or the amortised amount of the contributions should be added back to taxable profits. This reduces the expenditure qualifying for capital allowances by the capital contributions received within each accounting year. Under CAA2001, regardless of the accounting treatment of IFRIC18, expenditure and receipts which the Act deem to be capital will always be included as capital for tax purposes. We note from case law, that statutory provision always takes precedent over the accounting treatment. Licensees should ensure this treatment is applied in their business plans.

Tax losses

1.6. Tax losses have not been an issue for electricity distribution companies in the past. We do not expect this to be an issue for RIIO-ED1. If tax losses arise we will not give affected network companies negative tax allowances; instead we will roll forward any tax losses as calculated on a regulatory basis and deduct them from expected tax allowances when the timing differences that led to the loss reverse.

1.7. In computing regulatory losses, we will ignore and reverse any surrender by a network company of losses to a group company and similarly for consortium relief, so that consumers benefit from the full amount of the losses as they reverse.

Modelling of expenditure allocations to capital allowance pools

1.8. We will use the following capital allowance pools:

- General Pool (this includes vehicles, cars and short life assets)
- Special Rate Pool (for long life assets) - and the relevant rates of annual writing down allowance
- Deferred Revenue Expenditure Pool for costs capitalised in the financial statements and allowed as deductible when charged to revenue.

1.9. These pools reflect the relevant legislation in place and take into account the legislative changes to the capital allowances regime since previous reviews.

1.10. We will identify expenditure that does not qualify for capital allowances (principally interests in land), or is not deductible for computing taxable profits.

1.11. We will not allow for specific expenditure that qualifies for research and development allowances, environmentally beneficial technologies, and for environmental remediation allowances at the relevant rates as the amounts are considered immaterial. We will collect the actual expenditure throughout RIIO-ED1.

1.12. We will treat all other expenditure not qualifying for capital allowances or treated as non-qualifying, as revenue, which will attract a 100 per cent deduction.

1.13. 1.13. We will derive the allocation of expenditure to individual capital allowance pools, revenue and expenditure non-qualifying for tax deduction from the regulated businesses' attributions in each allocation table.

Allocations to capital allowance pools

1.14. For RIIO-ED1, as for DPCR5, we will retain and apply a common approach to allocate allowed expenditure to capital allowance (CA) pools. This relies on an 'average' actual allocation based on the information we receive from the network companies. We have adopted this basis as network companies have similar allocation profiles. We may need to do limited moderation of the allocations based on our view of where expenditure should be allocated according to the current legislation and published HMRC guidance manuals.

1.15. There are two common allocation tables:

- Table A3.1: for all DNOs who were party to an agreement with HMRC, which in effect created a separate 'deferred revenue' capital allowance pool for defined replacement and fault costs
- Table A3.2: for the two DNOs that were not party to that agreement and who do not allocate any expenditure to this pool.

1.16. Cost allocation to CA pools, revenue and expenditure non-qualifying for tax deduction are derived from the average of all DNOs' attributions in each allocation table. The allocation basis of the key building blocks to the capital allowances pools are set out in tables A3.1 and A3.2 below is that derived from the DNOs returns for the first two years of DPCR5. Controllable opex includes capitalised indirect costs and business support costs. This table excludes pension costs from the attributions, as these are 100 per cent deductible as incurred These tables will be updated for RIIO-ED1 when the companies' business plans have been received; we will include pensions cost in the overall assessment of the attributions rather than treating them separately. Companies should use their own allocation basis in their business plan submissions. However, even for those companies, if any, who are fast-tracked we will update the attributions in their business plans to reflect the updated generic attributions.

Table A3.1 – Cost allocation to capital allowance pools - RIIO-ED1

DNOs party to Non Load Agreement					
	Allocation to "General" pool	Allocation to "Special Rate" pool	Allocation to "Deferred Revenue" pool	Allocation to "Revenue" pool	Allocation to "Non Qualifying" pool
Load related capex	0.8%	92.5%	6.3%	0.0%	0.4%
Non-load related capex - asset replacement	1.2%	32.1%	58.5%	2.3%	5.9%
Non-load related capex – other + non-operational capex	19.3%	38.7%	36.1%	1.4%	4.5%
Faults	0.5%	5.9%	65.7%	27.4%	0.5%
Tree cutting	0.0%	2.2%	21.8%	76.0%	0.0%
Controllable opex (includes capitalised indirects)	1.6%	22.3%	29.9%	45.6%	0.6%

Table A3.2 – Cost allocation to capital allowance pools - RIIO-ED1

DNOs not party to Non Load Agreement					
	Allocation to "General" pool	Allocation to "Special Rate" pool	Allocation to "Deferred Revenue" pool	Allocation to "Revenue" pool	Allocation to "Non Qualifying" pool
Load related capex	0.8%	98.8%	0.0%	0.0%	0.4%
Non-load related capex - asset replacement	0.6%	96.6%	0.0%	2.8%	0.0%
Non-load related capex – other + non-operational capex	15.4%	79.1%	0.0%	3.6%	1.9%
Faults	0.0%	85.9%	0.0%	14.1%	0.0%
Tree cutting	0.0%	0.0%	0.0%	100.0%	0.0%
Controllable opex (includes capitalised indirects)	1.9%	61.7%	0.0%	36.4%	0.0%

Opening capital allowance pool balances

1.17. The opening CA pool balances will be determined from the latest annual regulatory cost reporting pack (RRP) received, updated to the price control base year by addition of forecast spend by pool types from the Business Plans to 31 March 2015.

1.18. For DNOs, with a 31 March accounting reference date, we expect to receive the CT600 corporation tax returns and supporting computations (CT600 information) for the year ended 31 March 2011 with the RRP due by 31 July 2012. For network companies with a 31 December accounting reference date, we will require CT600 information for the year ended 31 December 2011.

1.19. We will review the closing CA pools (as shown in the RRP) for consistency with the CT600 information, and for any adjustments made to exclude non-regulated activity allowances.

1.20. When the CA pools per the tax returns have been adjusted, so that they are on a comparable basis, we will identify outliers. We will then take a view as to whether to accept the balances as they stand, or amend them.

1.21. We will reset the opening CA pools at 1 April 2015 based on the DNO's latest actual returns and forecast for the final year(s) of DPCR5. We will roll forward the pools using the allocation methodology described above.

1.22. We will not reset tax pool balances based on licensees actual expenditure, we will use the generic attributions to allocate costs to CA pools and revenue in the Annual Iteration Process; nor, we will amend the CA pool balances for any revisions advised by licensees during the price control as part of their annual reporting.

Modelling the tax deductibility of pension costs

1.23. The cash payments made by a DNO into a pension scheme are 100 per cent deductible in the year incurred, except where there are large irregular payments. Under the irregular payments rules, these are spread over the current and up to three future years in accordance with the legislation, dependent on their magnitude. For modelling and allowance setting, we assume that all pension payments attributable to the individual regulated business are paid in the year in which the allowance is given (to take account of the spreading of deficit repair costs).

1.24. We will allow for the above tax treatment of pension costs in the allocation of costs to CA pools as set out above.

1.25. Pension adjustments relating to earlier price control periods are computed net of tax and will not attract any further tax relief.

Modelling cashflows of Corporation Tax (CT) payments

1.26. We treat all DNOs and the regulated business segments as large companies.

1.27. Under current tax legislation, network companies are treated as large companies and are required to pay their corporation tax (CT) liabilities for any given year in instalments commencing in the current year. The spreading of CT payments over two years is a useful refinement when tax liabilities are uneven from year to year. In introducing the Annual Iteration Process, such a refinement is an unnecessary complication when liabilities are revised retrospectively.

1.28. We will model tax liabilities and resultant cash flows as incurred in the year they arise.

1.29. We will allow a DNO who justifies that it will be materially disadvantaged (being a 20 per cent difference in tax allowances) from the above change in 2015-16, to quantify this in their business plans, proposing a compensating adjustment. We do this to mitigate for any possible disadvantage that a DNO could occur if tax allowances are not broadly constant between price controls. We will review and assess their proposed adjustment and, if satisfied, will make a one-off adjustment to tax allowance in 2015-16.

Interest (payable and receivable)

1.30. We model interest payable by applying the nominal rate of interest (the assumed cost of debt plus modelled RPI estimate) to net debt as determined by the financial model, on an accruals basis year-on-year. We treat interest for tax purposes as fully deductible/taxable in the period in which it arises, subject to the tax clawback. We will ignore the forecast movement, if any, in derivative financial instruments in our modelling as these cannot be predicted with certainty.

Tax treatment of incentives

1.31. All non-totex related incentive revenues or penalties are on a pre-tax basis, ie it is not intended that they give rise to further revenues in respect of the tax charge in the revenues.

Treatment of excluded services

1.32. We give no allowance or relief for tax in respect of excluded service costs and revenues, including sole use connections. In setting ex ante allowances, the costs attributable to these services are deducted from the cost base of providing use of system services.

Business rates

1.33. We will continue to treat business rates as non-controllable operating costs (together with our licence fee) as at past controls. The Valuation Office Agency in England and Wales and Scottish Assessors Association in Scotland will now undertake further revaluations in 2017. These have been deferred from 2015. A further revaluation is expected in 2022. We consider that each network company is able to influence the valuation that is given and hence the business rates that it will incur in the future.

1.34. We will retain the existing DPCR5 treatment for the period from 1 April 2015 to 31 March 2017. The current mechanism enables companies to recover the difference between the actual and assumed costs.

1.35. For the period from 1 April 2017, we will switch-off this mechanism pending the outcome of the next revaluation exercise. Where network companies can demonstrate that they have taken reasonable actions to minimise the rating valuations, we will then reactivate the cost adjustment mechanism for the remainder of the period, (ie from 1 April 2017 up to 31 March 2022). We will deal with the 2022 valuation on a similar basis. This will align DNOs with all other network operators.

1.36. We consider that this approach provides incentives on network companies to minimise costs, whilst recognising that once the rating valuations are concluded the costs that they incur will be non-controllable.

1.37. For the avoidance of doubt, if the valuations have not been finalised or are under appeal at the 1 April 2017, as interim we will allow as a pass through the rate previously levied by rating authorities; and adjust in a subsequent year where these are different from the interim amount as part of the Annual Iteration Process.

Appendix 4 – Tax trigger

Tax trigger mechanism

1.1. The trigger mechanism protects DNOs from material effects on their cashflows of legislative changes and is symmetrical for both DNOs and consumers. It fulfils the following key criteria, in that it:

- is unambiguously clear when a trigger event has occurred
- is measurable by Ofgem with minimal recourse to DNOs, (subject to ex post adjustment for those that cannot be determined until tax returns are agreed by Her Majesty's Revenue and Customs (HMRC)
- is simple and transparent to apply.

1.2. We will calculate these changes by re-running the price control financial model (without profiling, if adopted) to assess the impact on the tax allowance component of revenues. This will be based on the aggregate effect over the remainder of the price control period of changes in relevant legislation, whether introduced in a Finance Act, other Act of Parliament, Statutory Instrument or other legislative instrument.

1.3. We treat all expenditure as if it is incurred directly in the regulated business. The trigger is only applicable to the activities for which base demand revenues are set, ie the regulated electricity distribution business. We will not apply the tax trigger to expenditure logged up or held outside of RAV, until it transfers into RAV.

1.4. The methodology and text below is that proposed for the RIIO-ED1 Price Control Financial Handbook and follows that for RIIO-GD1 and T1. We refer to tax trigger events as the TTE term in the methodology below.

Adjustments driven by tax trigger events - methodology

1.5. The methodology provides for the DNO's tax liability allowances to be updated (subject to a threshold described below) to take account of tax trigger events. This means that consumers will derive a benefit when tax liability costs fall materially, and the DNO and its shareholders will be appropriately reimbursed when they rise.

Tax trigger events

1.6. There are two types of tax trigger event for the purposes of tax liability allowance adjustments.

Type A tax trigger events

1.7. Type A events consist of:

- changes to corporation tax rates, applicable to one or more years
- changes to capital allowance rates applicable to one or more years.

Type B tax trigger events

1.8. Type B events consist of other factors (exogenous to the licensee, its owners or controllers) which cause a change to the licensee's notional tax liabilities for one or more years including:

- changes to applicable legislation
- the setting of legal precedents through case law
- changes to HMRC interpretation of legislation
- changes in accounting standards, including any deferral of the Financial Reporting Council (FRC) implementation date for Financial Reporting Exposure Draft 48 (FRED48) [26].

1.9. Where a Type B event changes the allocation of allowable expenditure into different capital allowance pools or introduces new capital allowance pools, the model will only be adjusted for the scale of the change driven by the policy. The applicable allocation and allowance rates will be adjusted to take into account the new expected allocation basis from the introduction of a new capital allowance pool or pools. There is no adjustment of allocations to licensee's actual allocations for years up to the date of the change. We will work with licensees to quantify changes to allocations where these are not straightforward.

1.10. Type B events will only be taken into account where the licensee has demonstrably used reasonable endeavours to minimise any increase in its tax liabilities.

Materiality threshold and 'deadband'

1.11. A materiality threshold is applied to tax trigger events during the price control period and a £m threshold amount for each year is included amongst the fixed values on the Tax Trigger sheet for the licensee in the PCFM.

1.12. The materiality threshold for each year is fixed for the period of the price control as set out in the final determination. The threshold has been determined as the greater of:

- 0.33 per cent of opening base revenue allowances ('PU' values) for the licensee; and
- the effect of a one per cent change in the rate of corporation tax,

on the opening values of the PU term for each year as set out in the final determination.

1.13. A change to tax liability allowances for a particular year is only applied where one or more trigger events result in a change to the licensee's tax liabilities for that year whose absolute value is greater than the threshold amount. Furthermore, any change to the tax liability allowance (upward or downward) is limited to the amount which is in excess of the threshold amount for the year concerned.

[26] FRED48 The Financial Reporting Standard applicable to UK and Republic of Ireland published by FRC January 2012, which is expected to become FRS102 early in 2013

1.14. Where the change to the licensee's tax liabilities for a particular year is below the threshold, subsequent tax trigger events, relating back to that year could cause the threshold amount to be exceeded. In that case, a change to the licensee's tax liability allowance for the year concerned (a revised TTE value) would be determined once the threshold has been exceeded. Note that there is no retrospective adjustment to MOD terms already directed. Adjustments become component parts of future MOD calculations only.

1.15. For the avoidance of doubt, a regulatory tax loss figure attributable to a particular year is not taken into account for the purposes of deciding whether the threshold amount has been exceeded for that year.

Accounting standards

1.16. The licensee's tax liability calculations are subject to:

- changes to applicable legislation
- the setting of legal precedents through case law
- changes to HMRC interpretation of legislation
- changes in accounting standards, including any deferral of the Financial Reporting Council (FRC) implementation date for Financial Reporting Exposure Draft 48 (FRED48)17 requirements of the accounting framework applicable to preparation of the licensee's statutory accounts[27].

1.17. The accounting frameworks to be applied by the licensee for the purpose of computing tax liabilities are:

- EU-IFRS, if adopted for use by the licensee; or
- UK GAAP (under Financial Reporting Standard 102, as it should be known as on the implementation of FRED48).

Notification of tax trigger events

Type A trigger events

1.18. Ofgem will, by 30 September in each year, notify the licensee of the Type A trigger events which it proposes to take into account in determining any revised TTE values for use in the Annual Iteration Process that is required to take place by 30 November in that same year. It is, however, open to the licensee to contact Ofgem in advance of 30 September to discuss the current view of Type A events. If Ofgem does not notify the licensee by 30 September in any year, the adjustments will be made in the subsequent year.

1.19. The notification from Ofgem will specify the corporation tax rate change(s) or changes to rates of capital allowances concerned and the years to which they relate.

1.20. If, after receiving the notification, the licensee considers that a Type A trigger event has occurred, which has not been included in the notification, it should contact Ofgem within 14 days

[27] Section 385 of the Companies Act 2006 refers.

and provide details of the event concerned. If Ofgem agrees that a further Type A trigger event has occurred, it will notify the licensee by 31 October in the same year.

1.21. If any Type A trigger event is left out of account when it ought to have been included in the determination of a revised TTE value (either because it was not included in a notice or otherwise) the position will be rectified in a subsequent revision of the TTE value(s) concerned. In such a case, the functionality of the PCFM means that a Time Value of Money Adjustment would be applied.

Type B trigger events

1.22. The licensee must notify Ofgem not later than 30 September in each year of all the Type B trigger events that it becomes aware of, except those which have been previously notified. This requirement applies equally to events which could be expected to increase or to reduce the licensee's tax liability allowances.

1.23. If the licensee fails to notify Ofgem of any events it becomes aware of, or should be aware of then subject to the licensee demonstrating that it uses reasonable endeavours to identify all Type B trigger events this may not be held a breach of the licence conditions. We will deal with each event on its merits on a case-by-case basis.

1.24. The notification should include, in respect of each Type B trigger event:

(a) a description of the event
(b) the change in tax liabilities which the event is considered to cause and the years to which they relate
(c) the calculations (including all relevant parameters and values) which the licensee used to arrive at the amounts referred to in sub-paragraph (b)
(d) any relevant information provided by HMRC in relation to the event
(e) evidence of mitigating measures which the licensee has taken to minimise any additional liabilities arising from the event
(f) whether the licensee agrees or disagrees with HMRC, whether they may contest it; and how they intend to report it in the tax submissions and their statutory and regulatory accounts.

1.25. The licensee's notification should also state whether the licensee considers that the materiality threshold has been exceeded for the year(s) concerned, taking into account the total net amount of tax liability changes (upward and downward) included in the current notification and any previous notifications.

1.26. Ofgem will review any notifications given to it by the licensee under and may ask the licensee:

- for additional information in respect of one or more of the notified events; and/or
- to submit the results of agreed upon audit procedures, specified by Ofgem and carried out by the licensee's appropriate auditors, to assist in confirming the appropriateness and accuracy of the licensee's calculations.

1.27. Ofgem will inform the licensee by 31 October in the same year whether, in respect of each Type B trigger event:

- it has agreed the change in tax liabilities figure calculated by the licensee;
- it has determined a different change in tax liabilities figure from that calculated by the licensee; or
- it has decided that consideration of any change in tax liabilities should be deferred until further/better information is available.

1.28. Where Ofgem determines a different change in tax liabilities figure from that calculated by the licensee or decides that consideration of any change in tax liabilities should be deferred, it will set out its reasons and/or calculations. The licensee has the right to reply setting out its objections, which Ofgem must consider.

1.29. Ofgem will also notify the licensee by 31 October in each year, of any Type B trigger events that it proposes to take into account, which have not been included in a notification sent to Ofgem by the licensee. The licensee has the right to reply setting out its objections, which Ofgem must consider.

1.30. The final quantification and adjustment for any type B trigger event will be deemed to have occurred when the licensee and HMRC conclude the agreement of the licensee’s tax liabilities for the relevant year concerned. This means that the final quantification will typically either confirm a prior value of TTE or revise a value of TTE for a earlier year.

Logging of trigger events

1.31. Ofgem will keep a log of tax trigger events which have been subject to notifications by it or by licensees showing for each event:

- a description of the event and whether it was Type A or Type B
- the name of the party who notified the event (Ofgem or licensee)
- the date of notification
- the amount of any change in the licensee’s tax liabilities which has been determined under the procedures set out below
- details of any events for which a determination is in abeyance and a description of the outstanding actions to be taken.

Determination and direction of revised TTE values

Determination of revised TTE values using the tax trigger calculation tool

1.32. The design of the PCFM includes additional functionality meaning that a copy of the PCFM can be used as a tax trigger calculation tool, as an adjunct to the Annual Iteration Process.

1.33. Once, a tax trigger event has taken place at any point in the RIIO-ED1 price control period, then, after 31 October in each year t-1, Ofgem will generate a duplicate copy of the PCFM, in its state following the last completed Annual Iteration Process (but including any subsequent functional modifications under the relevant Special Condition) for use as the tax trigger calculation tool. It will then take the following steps to determine TTE values for each licensee:

(i) all of the other PCFM Variable Value revisions which have been determined for use in the prospective Annual Iteration Process (and which Ofgem expects to include in the notices of proposed Variable Value revisions to licensees) will be applied to the Variable Values Table
(ii) all of the existing TTE values will be re-set to zero
(iii) any existing values in the yellow input cells on the tax trigger worksheet will be cleared with the exception of the tax deadband values
(iv) the 'Tax allowance before tax trigger' amount for the licensee for each year shown on the tax trigger worksheet will be noted
(v) the PCFM copy will be put into 'tax trigger tool mode' using the selector on the User Interface worksheet of the PCFM
(vi) changes to corporation tax rates or writing down allowance rates (reflecting Type A trigger events) will be input into the yellow input cells in the appropriate rows and year columns on the tax trigger worksheet
(vii) the tax trigger macro calculation programmed into the workbook will be run
(viii) the aggregate changes to the licensee's tax liabilities determined in respect of all Type B trigger events (whether notified during the year or on an earlier occasion) will be input into the yellow input cells on the 'Type B event values' row in the appropriate year columns on the tax trigger worksheet
(ix) the tax trigger macro calculation will be re-run
(x) the new 'Tax allowance' amount for the licensee shown on the tax trigger worksheet will be noted – this is displayed net of the deadband amount which is a fixed amount for each year
(xi) the difference between the 'Tax allowance before tax trigger' referred to at point (iv) and the new 'Tax allowance' referred to at point (x) will be calculated as a £m amount, for the licensee for each year.

1.34. The amounts calculated under step (xi) will then be determined to be the TTE values for the licensee for each year where the deadband values have been exceeded.

1.35. The process set out above will be re-performed, if any of the PCFM Variable Values, referred to at step (i) are changed, to ensure that accurate TTE values are available for the Annual Iteration Process.

Notes on the tax trigger calculation

- The two stage calculation process referred to in steps (vii) and (ix) allows the tax trigger calculation tool to take full account of the interrelationship between Type A and Type B events
- The nullification of existing TTE values referred to in step (ii) together with the inclusion of all determined changes to the licensee's tax liabilities referred to in step (viii) ensures that the determination of TTE values under step (xi) is on a consistent basis and accurately applies the materiality threshold/ deadband applicable to each year
- The inclusion of all available revisions to other PCFM Variable values under step (i) ensures that the tax allowance calculation is as up to date as possible for each year
- Once a tax trigger event has occurred in any prior year, the tax trigger calculation will need to be run in all subsequent years, even if no tax trigger event occurs in the year of running the calculation.

Direction of revised TTE values

1.36. The Authority will direct any revisions to TTE values for the licensee by 30 November in each year, having given the licensee at least 14 days notice of the values which it proposes to direct.

1.37. Revised TTE values can be directed in respect of a particular Annual Iteration Process for any year during the price control period, including for years later than year t.

Examples of the timing of revised revenues

1.38. The following examples are not expected to form part of the handbook when finalised but are provided for additional information at this stage. They illustrate the activation of the trigger and the timing of revised revenues, firstly for the adjustment of A effects, and secondly for the ex post adjustment where B effects cannot be quantified until tax submissions are agreed with HMRC. For simplicity, in both examples the deadband trigger point is 0.33 per cent; the CT rates (based on the Finance Act 2012) and the cost of capital (DPCR5), are for illustrative purposes only.

Table A4.1: Example of trigger in period straight forward from A effects

Trigger with restriction to adjust only the excess over the trigger point									
2010/11 prices	RIIO-1								RIIO-2
	Year 1 £m	Year 2 £m	Year 3 £m	Year 4 £m	Year 5 £m	Year 6 £m	Year 7 £m	Year 8 £m	Year 9 £m
Impact on accounting tax charge:									
Year 1	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	
Year 2		(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	
Year 3			15.0	15.0	15.0	15.0	15.0	15.0	
Year 4				2.0	2.0	2.0	2.0	2.0	
Year 5					(10.0)	(10.0)	(10.0)	(10.0)	
Year 6						2.0	2.0	2.0	
Year 7							1.0	1.0	
Year 8								2.5	
Sub total	(2.0)	(5.0)	10.0	12.0	2.0	4.0	5.0	7.5	
Adjustment for base amount	2.0	3.3	(3.3)	(3.3)	(2.0)	(3.3)	(3.3)	(3.3)	
Impact	0.0	(1.7)	6.7	8.7	0.0	0.7	1.7	4.2	
Additional tax on additional revenue	0.0	(0.4)	1.6	2.1	0.0	0.2	0.4	1.0	
Impact on subsequent year's revenue	0.0	(2.1)	8.3	10.8	0.0	0.9	2.1	5.2	
Trigger at 0.33%	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	
Trigger exceeded	NO	YES	YES	YES	NO	YES	YES	YES	
CT rate	25%	24%	24%	24%	24%	24%	24%	24%	
	RIIO-1								RIIO-2
	Year 1 £m	Year 2 £m	Year 3 £m	Year 4 £m	Year 5 £m	Year 6 £m	Year 7 £m	Year 8 £m	Year 9 £m
Modelled Base Revenue	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	
Impact on revenues		0.0	(2.1)	8.3	10.8	0.0	0.9	2.1	5.2
Total adjusted Base Revenue	1000.0	1000.0	997.9	1008.3	1010.8	1000.0	1000.9	1002.1	5.2

Table A4.2 Example of trigger to show the deferral working

Trigger with restriction to adjust only the excess over the trigger point																	
		RIIO-1								RIIO-2							
2010/11 prices	Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Impact of tax legislation on accounting tax charge:																	
Year 1		(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)								
Year 2			20.0	20.0	20.0	20.0	20.0	20.0	20.0								
Year 3				4.0	4.0	4.0	4.0	4.0	4.0								
Year 4					2.0	2.0	2.0	2.0	2.0								
Year 5						(16.0)	(16.0)	(16.0)	(16.0)								
Year 6							(10.0)	(10.0)	(10.0)								
Year 7								(5.0)	(5.0)								
Year 8									(15.0)								
Deferred settlement		0.0	0.0	25.0	50.0	40.0	0.0	0.0	(25.0)								
Sub total		(3.0)	17.0	46.0	73.0	47.0	(3.0)	(8.0)	(48.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adjustment for base amount		3.0	(3.3)	(3.4)	(3.5)	(3.6)	3.0	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Impact		0.0	13.7	42.6	69.5	43.4	0.0	(4.7)	(44.7)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Additional tax on additional revenue		0.0	3.3	10.2	16.7	10.4	0.0	(1.1)	(10.7)								
Total impact on base revenue		0.0	17.0	52.9	86.2	53.8	0.0	(5.8)	(55.5)								
Deferred settlement				25.0	50.0	40.0	0.0	0.0	(25.0)								
(Value of total less amount settled in following year)																	
Corporation Tax rate		25%	24%	24%	24%	24%	24%	24%	24%								
Years to settlement				5	5	5			4								
Year in which revenues adjusted				8	9	10	0	0	12								
Deferred settlement (NPV at Cost of Capital)				31.5	62.9	50.3			(30.0)								
Trigger at	0.33%	3.3	3.3	3.4	3.5	3.6	3.5	3.3	3.3								
Trigger exceeded		NO	YES	YES	YES	YES	NO	YES	YES								
Revised Revenue		RIIO-1								RIIO-2							
	Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Base Revenue		1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0								
Impacts of change from:																	
Year 1			(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)							
Year 2				20.0	20.0	20.0	20.0	20.0	20.0	20.0							
Year 3					4.0	4.0	4.0	4.0	4.0	4.0							
Year 4						2.0	2.0	2.0	2.0	2.0							
Year 5							(16.0)	(16.0)	(16.0)	(16.0)							
Year 6								(10.0)	(10.0)	(10.0)							
Year 7									(5.0)	(5.0)							
Year 8										(15.0)							
Deferred settled			0.0	0.0	25.0	50.0	40.0	0.0	0.0	(25.0)							
Adjustment for base amount			3.0	(3.3)	(3.4)	(3.5)	(3.6)	3.0	3.3	3.3							
Tax on tax impact			0.0	3.3	10.2	16.7	10.4	0.0	(1.1)	(10.7)							
Total adjusted revenue for calculating trigger		1000.0	1000.0	1017.0	1052.9	1086.2	1053.8	1000.0	994.2	(55.5)							
Actual phasing of adjusted base revenues:		1000.0	1000.0	1013.7	1017.6	1019.5	1003.4	1000.0	995.3	(19.7)							
Revenues deferred									31.5	62.9	50.3	0.0	(30.0)	0.0	0.0	0.0	0.0
Tax on tax allowed									7.5	15.1	12.1	0.0	(7.2)	0.0	0.0	0.0	0.0
Total Revenues									1034.3	58.3	62.4	0.0	(37.3)	0.0	0.0	0.0	0.0

1.39. In the example in above table A4.2, this shows when B amounts cannot be readily quantified and the revenue adjustment is deferred until tax computations are agreed. In the example, these are in years 8, 9, 10 and 12 with settlement made for each of years - 8, 9, 10 and 12. The amount settled is the calculated additional (or reduction in the) tax effect plus any change that this would make to the trigger, adjusted to be NPV-neutral to the year of settlement.

Appendix 5 – Tax clawback methodology

Scope

1.1. The RIIO methodology is based on that set out in the 31 July 2009 Open letter[28].

1.2. The methodology and text below is that proposed for the RIIO-ED1 Price Control Financial Handbook and follows that used in RIIO-GD1 and T1. The TGIE term used throughout is the tax clawback adjustment.

1.3. At the outset of the price control period, modelling assumptions are made about financing requirements, gearing levels and corporate debt costs for the licensee's business. These result in modelled levels of tax deductible interest costs and tax relief for the licensee.

1.4. If the licensee operates at a higher level of gearing than the modelled level, it stands to benefit from the tax value of higher levels of deductibility. We apply a mechanism which claws back this benefit for consumers by updating the licensee's tax liability allowances using the methodology set out in this appendix. It should be noted that there is no provision to give additional tax allowances to the licensee if it chooses to operate at a level of gearing lower than the modelled one.

Determination and direction of revised TGIE values

1.5. As a function of each Annual Iteration Process of the PCFM, for each year in the period 2015-16 to 2022-23 inclusive, updated figures for the expected amount of tax deductible interest payable by the licensee is calculated. These are shown as core and non-core elements in the Finance and Tax worksheet.

1.6. After 31 October in each year, Ofgem will obtain the most recently modelled figure for tax deductible interest payable by the licensee in Formula Year t-2, and all prior years from a copy of the PCFM, in its state following the last completed Annual Iteration Process (but including any functional modifications made since).

1.7. The licensee is required to submit its price control cost reporting pack by 31 July in each year[29].

1.8. Ofgem will obtain from the 'tax clawback data table' in that submission:

- the licensee's view of adjusted net debt figure as at 31 March for the purposes of this calculation; and

[28] Ofgem open letter: Clawback of tax benefit due to excess gearing
http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=49&refer=Networks
[29] Subject to any changes to Standard Licence Condition 48 (Reporting of Price Control Cost Information)

- the adjusted amount of tax deductible net interest payable by the licensee measured on an accruals basis.

1.9. The criteria, which the licensee must observe in reporting each of these adjusted items, will be set out in the Cost and Revenue Reporting RIGs.

1.10. Ofgem will obtain from the PCFM (after all variable values have been updated other than the tax gearing clawback and tax trigger) the licensee's indicative RAV balance[30] as at 31 March as adjusted to year-end prices.

Applicability tests

1.11. Ofgem will use two tests – a gearing level test and a positive tax benefit test -to determine the TGIE value for the licensee.

Gearing level test

1.12. Ofgem will divide the licensee's net debt figure as at 31 March by the licensee's indicative PCFM RAV (including any Shadow RAV) balance as at 31 March to obtain an actual calculated gearing ratio.

1.13. If the actual calculated gearing ratio established, expressed as a percentage, is greater than the notional level of gearing then the positive benefit test will be performed. If the positive benefit test is not to be performed then TGIE is zero.

Positive benefit test

1.14. As set out in the PCFM for the purposes of tax liability allowances in the Finance and Tax worksheet, Ofgem will subtract 'interest' from the adjusted tax deductible interest payable reported by the licensee and treated as a positive value. If the resultant amount is positive then the clawback has been triggered.

1.15. If there is no positive benefit the clawback is not triggered and the value of TGIE is zero.

1.16. If the clawback has been triggered, Ofgem will multiply the result by the actual corporation tax rate applicable for the year to derive the licensee's benefit figure which becomes TGIE. TGIE can only be zero or positive. The mechanics of the model will produce a negative adjustment to tax allowances as intended.

Interaction with unutilised regulatory tax losses

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[30] As set out at the foot of the "Finance & Tax" worksheet in the PCFM for "RAV"

1.17. If in any year the licensee has a clawback but no modelled profits subject to tax then the benefit amount is added to the cumulative unutilised regulatory tax losses, ie it increases the losses. This will be relieved against future core taxable profit.

Direction of TGIE values

1.18. If, for any reason, RAV, net debt or tax deductible interest figures submitted by the licensee are subject to amendment after they have been used in determining TGIE values, the following procedure will be followed for the next Annual Iteration Process:

- Ofgem will re-perform the calculation of a benefit figure and the applicability tests set out above to determine whether any revised TGIE value should be determined and directed in respect of the amended year. For this purpose, Ofgem will use a copy of the PCFM in its latest state to obtain a modelled figure for tax deductible interest payable by the licensee
- If a revised TGIE value is directed for a year earlier than the reported year, any resultant changes to recalculated base revenue figures calculated under an Annual Iteration Process will, subject to a Time Value of Money Adjustment, be brought forward and reflected in the calculation of the term MOD. For the avoidance of doubt, such a revision will not have any retrospective effect on a previously directed value of the term MOD.

1.19. The Authority will direct TGIE values for the licensee by 30 November in each year, having given the licensee at least 14 days notice of the values which it proposes to direct.

Processing of revised the Tax Trigger Event term (TTE) values and TGIE values under the Annual Iteration Process

1.20. A positive incremental change in a TTE value will increase the 'recalculated base revenue figure' for the year concerned by the same amount. However, if there is any outstanding (unused) amount of regulatory tax loss for the licensee, attributable to that year or to an earlier year, the increase to the recalculated base revenue figure will be partially or fully abated by an amount equal to the unutilised tax losses multiplied by the corporation tax rate for the year divided by (1 – CT); and the record of regulatory tax losses held within the PCFM will be updated accordingly.

1.21. For the avoidance of doubt, regulatory tax losses are not carried back and offset against tax liability allowances for years earlier than the year to which the regulatory tax loss concerned is attributable.

1.22. A negative TTE value will decrease the 'recalculated base revenue figure' for the year concerned by the equivalent amount. However, if the modelled tax liability (in the PCFM under the Annual Iteration Process) for the year concerned is smaller (in absolute terms) than the aggregate change in the TTE and TGIE value for that year, then:

- in the PCFM, a portion of the aggregate incremental change in the TTE and TGIE values equal to the modelled tax liability will be deducted from the recalculated base revenue figure for the year concerned to leave a net tax allowance of zero; and
- the remaining amount grossed up by the corporation tax rate for the year (ie amount divided by CT) will be added to the regulatory tax loss balance for the year concerned and carried forward.

Appendix 6 – Pensions methodology

Scope

1.1. We set out below the pension methodology for RIIO-ED1 which applies our pension principles (set out in appendix 7). We will use this to assess and set allowances for RIIO-ED1 and expect companies to apply this in their fast-track business plan submissions for RIIO-ED1. The methodology also encompasses the Annual Iteration Process including the triennial true-up and reset procedures. These methodologies cover:

- true-up of DPCR5 pension costs
- appropriate actuarial valuation
- updating allowances for deficit funding.

1.2. Our RIIO pension methodology continues that set out in the 22 June 2010 pension paper[31], the DPCR5 final proposals and our pension principles. As applied for RIIO-GD1 and T1, this has been modified to an eight, rather than a five-year, price control period. For electricity distribution networks the policy commenced on 1 April 2010 (with DPCR5), applying a 15-year notional funding period. This methodology explains the transition between the two price control periods.

1.3. We will not fund any pension costs that relate to unregulated activities of the licensee, including the cost of repairing the relevant proportion of any deficit. In RIIO, we do not set specific allowances for ongoing (defined benefit or defined contribution) pension service costs, pension scheme administration and PPF levy costs; and the annual funding costs of the incremental deficit.

1.4. Our intention is to agree with licensees values for the DPCR4 and DPCR5 true-ups and the Established Deficit funding (including any adjustments arising from the reasonableness review of the 2010 valuations) ahead of submission of the business plans.

Established Deficit

1.5. The term 'Established Deficit' means the difference between the assets and corresponding liabilities, determined at any point in time, within a defined benefit pension scheme, sponsored by the licensee, which are attributable to the licensee's distribution business, attributable to pensionable service up to and including 31 March 2010 and relating to Regulated Business Activities under Pension Principle 2. The term applies equally if there is a subsequent surplus.

1.6. The proportion of a wider group pension scheme deficit which is attributable to the licensee's distribution business will be determined in accordance with the deficit allocation methodology. The methodology is being published separately.

[31] Price Control Pension Principles Second Consultation document (reference number: 96/09) http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=119&refer=Networks

1.7. Allowances for Established Deficit repair are set at levels intended to allow the licensee to clear its Established Deficit (by making payments to the pension scheme) over a 15-year period, beginning on 1 April 2010 and ending on 31 March 2025. This is subject to changes in the amount of the Established Deficit, at each triennial reset point within our notional 15-year funding period, caused by exogenous factors, for example caused by a fall in the value of stock markets or changes in longevity assumptions. This will apply, even if there has been an interim period during which a funding surplus is reported. Changes in the deficit arising from de- or re-risking or any other rebalancing of assets will be subject to review. We will do this to ensure that the scheme's expectations from such actions, at the point they are considered or before implementation, demonstrate the benefits to consumers. Our overriding provisos are that the scheme or schemes have been efficiently managed in accordance with pension principle three; and, that the costs are efficient and economic in accordance with principle one. The RIIO-ED1 price control period ends on 31 March 2023, but Established Deficit repair allowances will be determined having regard to the projected Established Deficit repair to 31 March 2025. In the event that the Established Deficit increases materially in the latter part of the 15-year period, the funding period may be extended at our discretion in order to protect different generations of consumers. In addition, if a new Established Deficit arises, following the 15-year funding period, additional allowances may be provided on a case-by-case basis where that new deficit is due to exogenous factors and not poor stewardship. This deficit must relate to pensionable service accrued up to the cut-off date and be demonstrated to be efficient and economic by a reasonableness review.

Pension scheme administration and PPF levy

1.8. Pension scheme administration and Pension Protection Fund (PPF) levy costs are not subject to a separate allowance or true up. These costs will be included within totex with no separate uncertainty mechanism.

Pension costs for service after 31 March 2010

1.9. Pension costs attributable to the licensee, but which relate to pensionable service on or after 1 April 2010 are considered as a constituent part of labour costs/totex for price control purposes. This includes costs relating to any deficit that accrues in relation to such service, this is termed the incremental deficit.

Incremental deficits

1.10. We do not set specific allowances to fund the incremental deficit; instead the annual funding cost should be included in totex. We would expect licensees to base their incremental deficit funding costs on the same 31 December 2012 roll-forward valuation used for the Established Deficit. To determine the share of the incremental deficit, licensees should use the pension deficit allocation methodology to calculate the portion of the deficit funding costs attributable to the incremental deficit at that date.

1.11. We do not expect that the incremental deficit funding costs should increase in future years, as licensees' schemes should have set the on-going service costs to recover the estimated value of the incremental deficit liability. The forecast of any future annual incremental deficit funding costs should be sufficiently robust to justify their inclusion in a business plan. These should be supported and justified by actuarial evidence.

1.12. There is no true up for incremental deficit funding costs, which will be identified at the first formal submission of the Pension Deficit Allocation Method (PDAM) data tables as at 31 March 2013. These costs should be separately identified for the DPCR5 period and form part of totex, subject to the same incentive mechanism as all other costs in DPCR5 and RIIO-ED1. Licensees should exclude this element from their actual funding payments for the remaining two years of DPCR5 and all of RIIO-ED1. These annual incremental deficit funding costs will be the actual payments made by the network operator based on the Defined Benefit (DB) pension scheme's recovery plan, determined accordance with the pension deficit allocation methodology.

True-up of final year of DPCR4

1.13. We will true-up the actual costs in the last year of DPCR4 (2009-10) compared to forecast deficit funding costs, ongoing costs, PPF levy and scheme administration and spread these evenly over the eight years of RIIO-ED1.

True-up for DPCR5

1.14. We set out in DPCR5 Final Proposals – Financial Methodologies supplement ('the FM supplement') [32], how the true-up mechanisms will operate for ongoing service costs. For pension deficits, we said we would reset deficit funding at the commencement of each subsequent price control and true-up any under or over-funding of efficient pension costs over the residual period of the 15-year notional funding period.

1.15. There are a number of true-up adjustments to be made in respect of DPCR5, these are:

(i) For ongoing service costs for both defined benefit and defined contribution schemes, which includes pension scheme administration costs, between allowances and actual outturn costs.
(ii) PPF levy costs, which are subject to review and, where appropriate, the level of the true up adjustment will be dependent on the action taken to mitigate costs. The adjustment is attributed between fast and slow-money (ie entering RAV).
(iii) For differences between the allowances for funding the actual Established Deficit at 31 March 2010 as shown in the valuations at 31 March 2010 (which were included in the last reasonableness review[33] by the Government Actuary's Department (GAD)) and the allowances which were based on provisional deficits shown in the 30 September 2009 roll forward valuations. This will include making any necessary adjustments arising from that reasonableness review as part of the resetting the DPCR5 Established Deficit funding allowances. We will spread the true up of the difference between the used to set allowance in DPCR5 and the Established Deficit equally over the remainder of the notional 15-year funding period.
(iv) Difference between DNOs actual economic and efficient Established Deficit funding costs, informed by the reasonableness review, made by the licensee compared to the adjusted allowances based on the 31 March 2010 valuations in (iii) above.

[32] DPCR5 Final Proposals – Financial Methodologies supplement - at appendix 10
http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=372&refer=Networks/ElecDist/PriceCntrls/DPCR5
[33] GAD pensions report May 2012
http://www.ofgem.gov.uk/Networks/Documents1/GAD%20peniosn%20Report-16052012.pdf

1.16. The adjustments at (i), (ii) and (iii) above, will be based on DNOs actual costs to 31 March 2013 and forecast data from 1 April 2013 to March 2015. (For (iii) adjustments may need to be made to actual and forecast amounts to ensure consistency with the allowances pending the outcome of the review of the 2013 valuations). A further true up for the two forecast years to actual costs will be made on the same basis through the Annual Iteration Process. This will be made effective from 1 April 2015, although as the actual data will not be received until 31 July 2015 in the 2014-15 annual regulatory reporting pack (RRP), the changes may not be made until 1 April 2016.

1.17. The slow money element of the true up of ongoing service costs and PPF levy costs will both enter RAV on 1 April 2015, subject to a further adjustment as noted above in 2016, for the difference between actual and forecast costs for the last two years of DPCR5.

1.18. The adjustments at 1.15 (iv) above are made in two stages:

- for the period to 31 March 2013 will be informed by the reasonableness review of the March 2013 valuations
- for the period to 31 March 2015 informed by the subsequent reasonableness review of the 31 March 2016 valuations – this will cover the last two years of DPCR5 and the first year of RIIO-ED1.

We will spread these true-up adjustments from the reset dates equally over the remainder of the notional 15-year funding period.

1.19. These adjustments follow the timetable set out in the PDAM and will be adjusted in revenues effective from 1 April 2015 and 1 April 2018 respectively[34].

1.20. We will apply the same treatment to adjustments irrespective of whether companies are fast- or slow- tracked, so that no licensee is disadvantaged. This means that a business plan that has been fast-tracked may have its Established Deficit funding and true-up amounts updated before the commencement of the control from April 2015.

Ongoing service costs

1.21. A specific sharing mechanism was applied to ongoing pension costs for DPCR5. The sharing mechanism is applicable to the normal ongoing contributions of both network companies' Defined Benefit and Defined Contribution schemes (and, where appropriate, employer contributions to Personal Accounts[35]) and includes pension scheme administration costs. It excludes the PPF levies and, where appropriate, a true-up adjustment dependent on the action taken to mitigate these costs.

[34] Or 1 April 2016 and 2019 if the respective reasonableness reviews are not completed by 31 October 2014 and 2017.
[35] Personal Accounts for employees introduced by the Pension Act 2008 being introduced in stages from 2012.

1.22. The sharing is asymmetric, the DNOs share of downside risk is 20 per cent and the upside incentive rate is 50 per cent and is shown in table 10.8 of the DPCR5 financial methodologies supplement.

1.23. The incentive rate will be applied to the difference between network companies' allowances of ongoing pension costs (including the allowances for pension scheme administration costs) and actual outturn costs. If the difference in the outturn costs exceeds the allowance, network companies will receive a true-up of 80 per cent of that difference in their revenue allowances in RIIO-ED1 on an NPV neutral basis. Shareholders will bear 20 per cent of the difference. If the difference is an under-spend against the allowance, network companies will retain 50 per cent and the other 50 per cent will be adjusted by reducing revenue allowances in RIIO-ED1 on a NPV neutral basis.

1.24. The true-up will take the actual DNOs allowed spend (ie the element relating to distribution activity only) and compare this to the allowances in the DPCR5 price control, both rebased into 2011-12 prices. The difference between actual and allowance is then adjusted for the sharing impact.

1.25. In accordance with the DPCR5 methodology, part of the allowed adjustment relating to 85 per cent of totex will flow as slow money into RAV and 15 per cent of totex and 100 per cent of Business Support Costs will be allowed as fast-money. Adjustments are made for the time value of money (at DPCR5 cost of capital) and tax.

1.26. The actual RAV is then recalculated using the revised RAV additions.

1.27. The element attributable to fast money is then recalculated and this is compared to the original calculation. The difference between the original and revised fast money element is then adjusted for the time value of money (at DPCR5 cost of capital).

1.28. This figure is then adjusted for tax and will be allowed as a revenue adjustment in RIIO-ED1, spread evenly over eight years.

1.29. The difference between the revised RAV and the RAV based on actual spend is then adjusted to the opening RAV for RIIO-ED1. An indicative annual calculation is reported annually in the annual cost reporting returns.

1.30. The true-up will be calculated for five years of the price control as shown in table 10.8 of the DPCR5 Financial Methodologies supplement.

Deficits

1.31. In DPCR5, we stated that, at the end of the control period, or in any case no longer than five years after the initial allowance was set, an efficiency review would be undertaken. This would determine whether a company's pension costs are reasonable so that the DNO can recover its economic and efficient pension costs, irrespective of the allowance set at the start of the control.

1.32. All DNOs' pension costs (except WPD Central Networks East and West) in their last full valuations (usually at 31 March 2010) were the subject of reasonableness review. We will reflect any adjustments arising in the true-up of pensions deficit repair costs from 1 April 2015.

1.33. We will undertake the next reasonableness review on all network companies' pension valuations at 31 March 2013. This will inform the true-up of the remaining portion of DPCR5 Established Deficit funding and the resetting of allowances with effect from 1 April 2015. There will two further reviews in RIIO-ED1 on valuations at 31 March 2016 and 2019, as set out in table A6.1. A review on the 31 March 2022 valuations will commence in summer 2023 but the outcome will not be reflected in revenues in RIIO-ED1.

True-up for forecast years' data in DPCR5

1.34. We will make adjustments for these as set out in paragraph 1.15 above.

Appropriate actuarial valuation

1.35. We require licensees to submit actuarial valuations as at 31 March 2013, 2016 and 2019. Where the above dates are not concurrent with their schemes' full triennial valuations, licensees must submit a roll forward valuation, as defined in our new Pension Deficit Allocation Methodology (and repeated below) from the last full valuation prior to those dates. We will reset allowances for the Established Deficit following completion of the reasonableness review of each valuation round as part of the Annual Iteration Process. As noted above, dependent on the timing of completion of the review of the 2013 valuations, these adjustments should be made in revenues for 1 April 2015 or, if delayed, 2016 and will be NPV neutral.

1.36. Our normal requirement is that the previous full valuation must have been included in the last reasonableness review. There may be circumstances where a licensee does not have a prior full valuation as at 31 March 2010 on which to base their roll forward. This may arise, for example, where a scheme has been sectionalised from a larger scheme (as part of corporate transaction). Where the latter is not the case, we require those DNOs to provide a roll forward valuation from the last full valuation which has been included in our latest reasonableness review, to the relevant review date. If there is not one, then we will discuss with the licensees concerned the appropriate basis for their forecasting of their deficit funding allowances and true-up of DPCR5.

1.37. We acknowledge that roll forward valuations are approximate in nature, compared to a full valuation; and that the results may vary the more it moves away over time from the date of the base full valuation. DNOs can mitigate these issues if they align their full valuations to be concurrent with our triennial reset and reasonableness timetable. We require that the updated valuations must be based on the same actuarial assumptions that were adopted in the previous full valuation, updated only for changes in asset values and market conditions. A licensee cannot roll back a later valuation (and use its assumptions) to an earlier date.

Requirements of a roll forward valuation

1.38. The updated roll forward valuation should be prepared and certified by the scheme actuary based on:

a. The Pension Regulator's guidance in their document Regulatory Code of Practice 03 Funding defined benefits at paragraph 129 on actuarial reports between actuarial valuations; and the scheme's Statement of Funding Principles (SFP), which must be supported by:

- A copy of the SFP on which the roll forward valuation is based
- A statement from that actuary setting out the basis of the valuation
- Together with a schedule of the actuarial assumptions at both the last full valuation and the rolled forward valuation, explaining each of the following changes since that last full valuation:
- Asset values and how they have been recalibrated from known asset data and latest asset allocations, which must be specified, eg specific index returns
- Movements in liabilities as a result of yields and hence inflation and discount rate assumptions
- Movements in contributions (specifying lump sum contributions (and date) separately from ongoing service and deficit contributions)
- Movement from benefit payments
- Confirm it maintains the assumption that demographic experience is in line with assumptions in the last full valuation
- Significant bulk transfers out (eg arising from corporate transactions)
- Significant bulk transfers in (eg arising from corporate transactions).

b. Confirmation as to whether the roll forward valuation has, or has not, taken into account:

- Variations in liabilities arising from salary rises, deferred pension revaluation or pension increases differing relative to assumptions
- Variations between actual and expected demographic experience (eg early retirement or mortality)
- Benefit changes
- If it has, set out each of the changes.

Deficit funding rate of return

1.39. We will derive the funding rate of return by a benchmarking process against energy network operators' pre-retirement discount rates as applied in their relevant valuations and moderated against similar rates reported for occupational pension schemes in Great Britain. We will review and reset this rate every three years commencing with the review of valuations at 31 March 2013.

De-risking and contingent assets

1.40. We expect companies to demonstrate how their de-risking strategies and the use of contingent assets adopted or being considered are or will protect future scheme funding and the benefits that they expect to flow to consumers and not just themselves or the scheme. Where the costs are borne directly by the licensee, rather than the pension scheme, this assessment may be undertaken separately from the reasonableness review.

1.41. Contingent assets may come in a variety of forms, eg the use of escrow accounts, guarantees to charges on assets. Scheme sponsors may seek to use contingent assets, where possible, to mitigate increases in deficit funding costs where schemes have achieved very high funding levels; or, trustees to strengthen the employer covenant. This may be effective in reducing funding costs for consumers. We encourage and expect the network operator to demonstrate at inception the expected benefits to consumers. The use of certain forms of contingent assets may require consent of the Authority, as prescribed in the licence[36]. Licensees should approach us at an early stage if they consider may need, or wish to seek Authority consent for the avoidance of doubt.

1.42. We expect licensees to be able to clearly identify and evidence the quantum of forecast costs for which allowances are sought and actual costs where they expect a subsequent true up. We will deal with each case on its merits and apply our pension principles in our assessment. We will work with a licensee to develop any additional methodology where required and reserve the option to consult on its application; and, where necessary apply the change control procedures to insert this in the RIIO-ED1 Price Control Financial Handbook and model.

1.43. For the avoidance of doubt on the future regulatory treatment, network operators may wish to seek guidance from us in a case-by-case basis.

Updating allowances through the Annual Iteration Process

1.44. The opening base revenue allowances (‘PU’ values) will include allowances for DB pension scheme Established Deficit allowed expenditure for each Formula Year of the RIIO-ED1 price control period. These will be updated during the RIIO-ED1 price control period to reflect:

- Established Deficit level information contained in DB pension scheme valuation reports provided by the DNO to Ofgem
- any adjustments identified in the triennial reasonableness review.

1.45. We will revise allowances twice during the RIIO-ED1 price control period, driven by the triennial scheme valuation cycle indicated in the timetable below. If the review due to be completed by 30 Nov 2014 is not completed in time for Final Proposals the adjustments will instead be made as part of the proposed Annual Iteration Process in 2015-16.

[36] Standard licence conditions 26 *Disposal of Relevant Assets* and 29 *Restriction of activity and financial ring-fencing of the Distribution Business*

Table A6.1 - Timetable for revisions to allowances.

Actuarial defined benefit pension scheme valuation as at	Expected receipt of scheme valuation by Ofgem	Pension deficit allocation methodology information provided	Reasonableness review completed	Revised values directed for Annual Iteration Process no later than:	Allowance values revised for Year
31 March 2013	June 2014	30 September 2014	31 October 2014	30 November 2014	2015-16 onwards
31 March 2016	June 2017	30 September 2017	31 October 2017	30 November 2017	2018-19 onwards
31 March 2019	June 2020	30 September 2020	31 October 2020	30 November 2020	2021-22 onwards

Reasonableness review

1.46. We will commission and undertake reasonableness reviews on all network operators' actuarial valuations as at 31 March 2013, 2016 and 2019 (see Table A6.1). In accordance with the PDAM timetable, we intend that these will commence following submission of the respective valuations on 30 June in 2014, 2017 and 2020. We recognise that it may not be possible or practical to complete these reviews by 31 October of those years to meet the Annual Iteration Process (AIP) timetable for directing adjustment to revenues. The latter are effective from 1 April 2015, 2018 and 2021. Our intention is to allow the reviews to run their course and not use any initial findings to raise preliminary adjustments, where required, to meet the AIP timetable for the annual direction. If we are not able to direct within these timescales, the adjustments will be made in the following year but with the same effective date.

1.47. We will share with all network operators and other stakeholders our proposed terms of reference (for our independent experts) for the initial high level stage of each future reasonableness review of pension costs. These will take into account respondents' views on the conduct and process for the last review. Our initial thoughts are that the overall approach will broadly follow that set out in our 22 June 2010 paper[37] for an initial review and a report by those independent experts. This may be followed by a second stage, which may be undertaken concurrently with closing out the initial stage.

1.48. Dependent on the issues raised at the initial stage, we will consider whether the second stage is a wide ranging in-depth review or focussed in-depth approach on a few issues. Where the initial review highlights a limited number of issues for further actual or potential action, we will take both a proportionate and reasonable approach to understanding and resolving them where we consider they do not require, justify or necessitate an wide ranging in-depth review. This

[37] Price control treatment of network operator pension costs
http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=119&refer=Networks

would avoid the unnecessary burden being placed on licensees that a wide ranging review may incur. We may appoint independent experts to support us. We would not necessarily propose or expect to issue a separate report on the second stage. We will deal with the issues and any adjustments as part of the overall triennial pension reset and review process.

1.49. Each review will assist Ofgem in determining whether a licensee's pension costs are efficient. The data set comprises:

- the actuarial valuation of the licensee's pension scheme(s), either a full valuation as at the dates specified in Table 3.1 (ie 31 March 2013, 2016 and 2019) or an updated valuation of the last preceding full triennial valuation (where the date of the full valuation is not concurrent) with the asset and liability values rolled forward to the above date(s) on basis defined in the pensions deficit allocation methodology document
- the schemes statement of funding principles
- the schemes statement of investment principles
- the completed deficit allocation methodology tables and other pension data tables and supporting documents specified in the price control review cost information Regulatory Instructions and Guidance (RIGs) document.

Determination and direction of revised pension allowances for RIIO-ED1

1.50. Revised Established Deficit funding allowances will be determined triennially as part of the Annual Iteration Process. We will publish the detailed methodology in handbook, which will set out the Annual Iteration Process for RIIO-ED1. We will utilise the handbook for RIIO-GD1[38] in drafting the RIIO-ED1 methodology, and stakeholders should consult that as a guide in the interim.

[38] GD1 Price Control Financial Handbook
http://www.ofgem.gov.uk/NETWORKS/GASDISTR/RIIO-GD1/CONRES/Documents1/GDFinHB.pdf

Appendix 7 – Price control pension principles under RIIO

1.1. Under RIIO price controls, our pension principles remain the same as previously set out. We have refined the guidance notes for each principle, to take account of developments in the pension arena, our pension methodologies, and how we intend to apply them to Defined Benefit (DB) pension schemes in RIIO price controls. These do not apply to defined contribution pension costs, which will dealt with as part of total employment costs and totex.

Principle 1 - Efficient and economic employment and pension costs

Customers of network monopolies should expect to pay the efficient cost of providing a competitive package of pay and other benefits, including pensions, to staff of the regulated business, in line with comparative benchmarks.

1.2. Consumers should not be expected to pay the excess costs of providing benefits that are out of line with the wider private sector practice, nor for excess costs avoidable by efficient management action. We will, unless inappropriate, benchmark total employment costs (including all costs for service after the relevant cut-off date) within total costs and subject these to the same incentive as all other costs. We do this to ensure companies have the correct incentives to manage their costs, including pension costs, efficiently.

Funding commitment

1.3. For each network company, consumers will fund the Established Deficit as at the end of the relevant price controls (ie DPCR4, TPCR4 and GDPCR1). The Established Deficit means the difference between assets and liabilities (the value of the benefits) attributable to pensionable service up to the end of each respective price control period set out below and relating to the regulated business under principle 2:

- for DNOs – the price control period ending on 31 March 2010
- for GDNs – the price control period ending on 31 March 2013
- for TOs and SOs – the price control period ending on 31 March 2012.

1.4. In accordance with principle 5, subject to adjustments to the regulatory fraction, the funding commitment covers the quantum of the Established Deficit at the respective cut-off dates in paragraph 1.3 above. The Established Deficit is subject to changes at each triennial reset point within our notional 15-year funding period, caused by exogenous factors, for example a fall in the value of stock markets or changes in longevity assumptions. This will apply, even if there has been an interim period during which a funding surplus is reported. Changes in the deficit arising from de- or re-risking or any other rebalancing of assets will be subject to review. We will do this to ensure that the scheme's expectations from such actions, at the point they are considered or before implementation, demonstrate the benefits to consumers. Our overriding provisos are that the scheme or schemes have been efficiently managed in accordance with principle 3; and, that the costs are efficient and economic in accordance with this principle 1. We understand that efficient de-risking could be substantially funded from efficiencies identified elsewhere within the scheme, eg reducing the level of prudence in assumptions, adopting an internal inflation hedge and cost effective hedging strategies.

1.5. Conversely, the funding commitment does not cover any element of deficit falling outside the scope of the Established Deficit (eg non–regulated activities and bulk transferees) or future service of those employees still active in the scheme after the relevant cut-off date. We will not make any future allowance for funding such deficit elements, ie the incremental deficit, other than through the totex allowance process and subject to the same incentive sharing mechanism that all other elements of totex are subject.

1.6. We will treat any deficit funding payments that arise from service after the relevant cut-off dates above, as part of totex. These are subject to the same incentive mechanism(s) as employment and total costs in general. These payments will be the actual payments made by the network operators determined in accordance with the pension deficit allocation methodology.

Notional deficit repair funding period

1.7. The Established Deficit will be funded over the notional 15-year deficit-funding period. We will apply a flat profile over the deficit-funding period allowing a rate of return. We do not reset the 15-year period at each subsequent control. The intention is that the deficit at the cut-off dates will be fully funded over the following 15 years from the respective cut-off dates. In the event that the Established Deficit increases materially in the latter part of the 15-year period, the funding period may be extended at our discretion in order to protect different generations of consumers. In addition, if a new Established Deficit arises, following the 15-year funding period, additional allowances may be provided on a case-by-case basis where that new deficit is due to exogenous factors and not poor stewardship. This deficit must relate to pensionable service accrued up to the cut-off date and be demonstrated to be efficient and economic by a reasonableness review.

Pension scheme administration costs and Pension Protection Fund (PPF) levies

1.8. These two items are, either paid directly by network operators or funded through increased employer contributions to the scheme. In setting allowances, we normalise the treatment of these costs; identify them separately and, as appropriate, exclude them from active service contributions.

1.9. The PPF have introduced a new framework for setting their levies in 2012-13. The PPF propose to review the levies and may amend them every three years. This new basis may increase, or decrease, the quantum of each scheme's annual levy as the PPF adopts a risk-based approach applied to each scheme's assets and liabilities and the likelihood of failure. These costs are partly outside the control of sponsors and trustees.

1.10. For RIIO-ED1, we have retained the approach set out at DPCR5 for future price controls. We will include the costs in totex and include them in same incentive mechanism as totex. This is a different approach to that introduced in RIIO-GD1 and T1. For those controls, the costs are excluded from the incentive mechanism; and, where the combined outturn costs exceed the aggregate of the combined allowances and a £1m threshold, we true up for the excess.

Stranded surplus and de-risking

1.11. In the event that a surplus arises (ie assets exceed the full buy-out cost of accrued liabilities as shown by an appropriate actuarial valuation), only the trustees have the power to decide whether it is in the interests of scheme members to repay any of the surplus to the employer (in accordance with the scheme rules and other legal requirements). Trustees' have obligations to protect scheme members.

1.12. Network operators' DB schemes are generally closed mature schemes with the majority of members either pensioners or deferred pensioners and with the average age of active members around 48-50 years. As such, we understand that they are generally looking to match their assets and revenues to their liabilities, which should become easier to forecast as most members retire. In doing this, their investment strategies may move from riskier to less risky assets, and they will likely use hedging and, possibly, other innovative funding strategies. In these circumstances, network companies consider that the potential for a surplus is very unlikely to arise. If this was the case, they consider that consumers may indirectly benefit from investing in less risky assets to protect schemes from increased deficits on riskier assets, which are subject to market movements. For the avoidance of doubt on the future regulatory treatment of de-risking, network operators may wish to seek guidance from us on a case-by-case basis.

1.13. Sponsors may also seek to use contingent assets, where possible, to mitigate increases in deficit funding costs where schemes have achieved very high funding levels. This latter option may be effective in reducing funding costs for consumers. We will encourage and expect the network operator to demonstrate at inception the expected benefits to consumers.

1.14. We will monitor each scheme's position on an annual basis. In the event that a scheme was in surplus for a given period, particularly a reset point, we consider that there is a reasonable expectation for symmetry in the treatment for funding of deficits and use of a surplus. We would therefore expect to share a surplus between members and consumers pro-rata to their funding of it. We would consider our options at each triennial reset point for truing up and resetting allowances (potentially including negative allowances), such that consumers would benefit and shareholders would cover the cost in the event that contribution levels remain the same. We will review each instance on a case-by-case basis.

Buy-ins and buy-outs of pension schemes liabilities

1.15. These currently fall within the scope of principles 1, 2 and 5. Buy-ins and buy-outs are effectively a de-risking of future liabilities. It will be necessary to determine how such de-risking should be shared between consumers and shareholders, to facilitate efficient management of the schemes and to remove uncertainty as to the regulatory treatment. It is difficult to be prescriptive as to how they should be spread between different generations of consumers. For guidance, an equitable option is to spread these costs over the same deficit repair period used to set allowances, for DPCR5 and RIIO price controls. This is our notional 15-year funding period commencing from the respective cut-off dates. However, if these occur towards the end of that funding period, we reserve the right to review the spreading period. We will deal with buy-ins and buy-outs, if they occur, applying these existing pension principles on a case-by-case basis.

Principle 2 - Attributable regulated fraction only

Liabilities in respect of the provision of pension benefits that do not relate to the regulated business should not be taken into account in assessing the efficient level of costs for which allowance is made in a price control.

1.16. It is for shareholders, rather than consumers of the regulated services, to fund liabilities associated with businesses carried on by the wider non-regulated group, ie activities not remunerated by network operators' price control allowed revenues. This includes businesses that were formerly carried on by the same ownership group and have been sold, separated and/or ceased to be subject to the main price control. In principle, this may include costs related to self-financing excluded services, metering, and de minimis activities of the network company and of unregulated businesses in the same scheme in the context of a transportation and/or distribution price control. For the purposes of the regulatory fraction and the pension deficit allocation methodology, these are collectively labelled 'non-regulated activities', being activities not remunerated by base demand revenues. These will be dealt with on a case-by-case basis, as in some cases the costs of such businesses or activities are not readily separable from the regulated business.

1.17. The regulatory fraction determined in setting allowances will be reviewed to assess the adjustment when there have been structural changes to a scheme within a price control period, at each reset. We will also review and adjust for movements, including cash funding by sponsors to the previously unfunded Early Retirement Deficiency Contributions.

1.18. Structural changes may occur when:

- schemes merge or demerge
- members are transferred in or out in bulk
- there is a change of ultimate controller
- there is a buy-in/buy-out of any part of the scheme membership.

1.19. We require that actual or potential movements in the regulatory fraction, arising after the relevant cut-off date, are made and reported annually by network operators. This is required as an adjunct to the operation of the pension deficit allocation methodology.

Bulk transfers

1.20. During a price control period, there may be bulk transfers of members in or out of a DB scheme through corporate activity. These transfers are usually only accepted when the transfer value finances the deficit, if any, of the transferees. Bulk transfers in to a scheme require approval by trustees and as specified by the Pensions Regulator (TPR), they must be fully funded (in all but exceptional circumstances). TPR guidance states: "There is no statutory obligation for a trust-based scheme to accept transfers-in and provide benefits in exchange. Some schemes do offer defined benefit transfer credits, typically in the form of added years counting for benefits on the scheme's normal formula. Other schemes offer money purchase benefits in exchange for transfers, in which case no issues arise as to assumptions for determining benefits". It also states, "A transfer credit should not be expected to require additional funding from the employer in the long term unless agreed by the employer in advance".

1.21. Under our commitment to fund the Established Deficits, movements in deficits arising from bulk transfers that result from corporate transactions, whether fully funded or not, are a risk for shareholders and not consumers. This applies even where the transferred protected person's pension liability is underfunded where it arises from a corporate transaction. We require network operators to advise these annually and, as appropriate, we may revise the regulatory fraction.

1.22. Trustees may accept bulk transfers into a scheme. These may include protected persons who may or, may not, be considered part of the regulated activities. We acknowledge that, network operators subject to the protected person's legislation, may have very limited scope to decline transfers in of protected persons. Where protected persons have been funded by one set of consumers in a price-controlled licensee, and transfer into a different licensee's scheme we are minded to continue that funding of the amount transferred relating to an Established Deficit. In all other circumstances, we consider that these are not part of the Established Deficit and therefore shareholders, not consumers, will fund any increase related to the transferees at future price controls.

1.23. This clarification covers only bulk transfers where individuals or groups of individuals (but not whole, or substantially, whole schemes) are transferred as part of a smaller transaction to acquire an activity rather than a licensee. We exclude a full merger between two existing DB schemes because of a corporate transaction. We will deal with this as a structural change (see above).

1.24. We cannot predict whether this treatment will be equitable in all situations. If we are satisfied that there are exceptional circumstances, we retain the option to deal with these on a case-by-case basis.

Principle 3 - Stewardship - ante/post investment

Adjustments may be necessary to ensure that the costs for which allowance is made do not include excess costs arising from a material failure of stewardship.

1.25. We will disallow any excess costs arising from a material failure in the responsibility for taking good care of entrusted pension scheme resources. Examples might include items such as recklessness, negligence, fraud or breach of fiduciary duty. We will review stewardship and reserve our position to make adjustments to allowances if we observe, for example, any of the following:

- poor investment returns over a long period, eg greater than a single price control
- scheme investment managers underperform against their peers or the market and expectations and their performance has not been reviewed or benchmarked at appropriate intervals
- not matching investment/returns to fund future liabilities as they fall due
- material increase in deficits and need for increased funding
- maintaining a higher balance of investments in riskier assets compared to investment returns which do not match future liabilities
- accepting transfers in at under value
- making transfers out at over value.

1.26. In determining whether pension costs are reasonable, we may compare the level of funding rate recommended by periodic actuarial valuations to the actual funding rate adopted by the licensee. As long as a funding valuation uses actuarial assumptions, which are in line with best practice and are not outliers, the costs may be included in the assessment of totex and be subject to any incentivisation adjustment and the reasonableness review set out in principle one. This is one potential indicator of whether there has been a material failure in stewardship. We reserve the right to examine investment and scheme administration costs to see whether these are materially out of line with industry figures.

1.27. The choice of investment strategy is one for trustees and necessarily involves the exercise of judgment, which, for any particular scheme and at any particular point in time, the trustees are best placed to make. We do not think it is appropriate, given our statutory remit, for us to make judgments about investment strategies. In particular, the success or otherwise of any particular strategy can only be measured in hindsight, whereas trustees must make ex ante choices. Moreover, the strategy, which optimises outcomes over the whole life of a scheme, may produce inferior results over any particular shorter period (and vice versa). Therefore, it would be inappropriate for us to make judgements about investment strategies based on outcomes over the period of one price control. As part of a reasonableness review, we will review investment returns and will do so over a period of at least 10 years. As set out in principle one, we will keep under review the effect of de-risking strategies and any increase in the burden for consumers and across different generations of consumers.

Principle 4 - Actuarial valuation/scheme specific funding

Pension costs should be assessed using actuarial methods, on the basis of reasonable assumptions in line with current best practice.

1.28. We expect the level of scheme funding to be assessed on the basis of forward looking assumptions regarding long-run investment returns and other key variables. Network operators are required to provide up-to date actuarial calculations (including the most recent formal actuarial valuation of the relevant schemes) to support their business plan estimates. During an eight-year price control period, network operators are required to provide annual updated rolled-forward valuations to 31 March each year and triennial valuations to enable the resetting of and the true up of opening adjustments.

1.29. We would not expect substantial differences between companies. However, if a reasonableness review identifies an outlier, we will investigate and review the reasons for this. If evidence of material differences arise, and these differences have contributed to an increase in funding required we may adjust the recommended funding rate for the purposes of setting and truing up price control allowances.

1.30. Network companies have advised that, in their view, de-risking strategies should protect the funding position of their scheme over the long term, in that they should place a floor on the downside. However, such strategies may significantly reduce the potential upside from future out-performance of various asset classes.

1.31. Whilst a move to de-risking these mature closed schemes may be expected, we will keep under review the increase in the burden for consumers and different generations of consumers.

This may arise from a combination of the speed and timing of de-risking, the use of conservative valuation and asset return assumptions (particularly of gilts, which have shown negative real returns) and increasing longevity. We understand that efficient de-risking could potentially be substantially funded from efficiencies identified elsewhere within the scheme, eg reducing the level of prudence in assumptions, cost effective hedging strategies. We expect companies to demonstrate how their de-risking strategies and the use of contingent assets adopted or being considered are or will protect future scheme funding and the benefits that they expect to flow to consumers and not just themselves or the scheme. For the avoidance of doubt on the future regulatory treatment of de-risking or use of contingent assets, network operators may wish to seek guidance from us in a case-by-case basis. We will apply these pension principles to the consumer funding of both.

Principle 5 - Under funding/over funding

In principle, each price control should make allowance for the ex ante cost of providing pension benefits accruing during the period of the control, and similarly for any increase or decrease in the cost of providing benefits accrued in earlier periods resulting from changes in the ex ante assumptions on which these were estimated on a case-by-case basis.

1.32. We will not set allowances or make true up adjustments for ongoing pension active service costs in RIIO price controls. Instead, they will form part of the overall assessment of totex and as such are subject to the same incentive mechanisms for sharing under- or over-spend. In the RIIO price controls, those ongoing costs will exclude scheme administration costs and PPF levies. Their treatment is explained in paragraph 1.10 above.

1.33. Typically, pension schemes undertake full actuarial valuations triennially, whereas, RIIO price controls are typically now set for periods of eight years. It is likely that funding rates will change during the period of a price control. It is inappropriate to leave deficit funding unaltered for an eight-year period. We have established three-yearly reviews, reset of allowances and true up points over our 15 year notional funding period. This timetable runs parallel with that of price controls and irrespective of price control periods across all licensees. We will reset allowances effective 1 April 2015 based on full triennial valuation (where available) or rolled forward updated valuations (as set out in our methodology) as at 31 March 2013 and every three years thereafter. At the same time, there will be a reasonableness review to inform the quantum of the costs and, if considered necessary, adjustments to the allowances for funding of the Established Deficit but not ongoing service costs or incremental deficit funding.

1.34. The annual funding payments for the incremental deficit (from the respective cut-off dates in Principle 1) will be subject to the same incentive mechanism as all other costs (including ongoing pension service costs). Those annual payments are: (a) those actually made by the company in accordance with the deficit recovery plan in the relevant valuation; and (b) attributed to the incremental deficit in accordance with our pension deficit allocation methodology.

1.35. We will apply the following guidelines to the funding of the Established Deficit:

- An attribution must be made of the deficit and its constituent assets and liabilities between the Established Deficit, the incremental deficit and non-regulated activities. The detailed methodology for this is set out in the pension deficit allocation methodology, which is published separately and it will be incorporated into the Regulatory Instructions and Guidance for reporting price control cost information for all licensees.

- We will perform triennial reasonableness reviews and reset allowances for the remainder of the notional 15-year funding period and make any necessary true up adjustments since the previous review or cut-off date. The reasonableness review will inform the allowances for the economic and efficient Established Deficit costs irrespective of the allowance set at the cut-off date and each subsequent review. We may determine and share the terms of reference with licensees at each review. The review will inform the level of any additional funding if either the outturn costs are higher than the allowances, or where the deficit has increased and either is demonstrably due to inefficiencies. Conversely, where outturn costs are lower than the allowances it will determine whether the licensee should retain any, or a proportion of, the savings.

- At each subsequent triennial review and related reset deficit-funding allowances will be reset based on the methodologies set out in the pension deficit allocation methodology. These will be set out in the RIIO-ED1 Price Control Financial Handbook.

- Any under- or over-recovery of efficient Established Deficit funding costs against the allowance in the previous three years as determined above, will be adjusted in future revenues over the remaining period of the initial notional 15-year funding period. We will make these NPV neutral using the same discount rates as used for spreading the ex ante deficit allowances. Consumers will be unaffected by the actual funding period set by companies.

- As noted under principle 2, we will apply a revised regulatory fraction at each triennial reset in accordance with our pension deficit allocation methodology. This will include the effect of any structural changes to a scheme on a case-by-case basis. We will update the element of the fraction related to movements in unfunded early retirement deficiency contributions (ERDCs) at each triennial review and reset dates.

Unexpected lump sum deficit payments

1.36. These tend to occur in instances of change in corporate control, or through corporate activity within the network operator's wider group. Whilst the trustees may take the opportunity to repair the deficit faster, it is not clear why consumers should pay an accelerated profile. Our default position is that we will treat the portion of the funding attributable to the Established Deficit as being made in equal annual instalments over the remaining period of the 15-year notional deficit funding period.

1.37. However, in exceptional circumstances, we may review the payment of the lump sum compared to what the position would have been if the deficit were spread over a number of years. This is to ensure that consumers have either positively benefited from, or have not been disadvantaged by the accelerated funding. Where a company cannot satisfy us that the accelerated payment has been in the interests of consumers (as opposed to shareholders or scheme members), our default position will apply.

Accelerated deficit funding payments

1.38. Where an annual deficit payment is accelerated by one or two years, for the purpose of the true up and NPV neutral adjustments, we will treat it as having been made in the year for which they were scheduled (in accordance with the original deficit funding plan) to be made.

Principle 6 - Severance - early retirement deficiency contributions

Companies will also be expected to absorb any increase (and may retain the benefit of any decrease) in the cost of providing enhanced pension benefits granted under severance arrangements which have not been fully matched by increased contributions.

1.39. Since 31 March 2004, ERDCs, whether partially funded or totally unfunded, are a matter solely for shareholders.

1.40. The principle requires that an adjustment be made to the allowances for future price controls to exclude the impact of ERDCs resulting from redundancy and re-organisation, which have been offset by use of surpluses, rather than being funded by increased contributions.

1.41. For this purpose, it will be necessary to roll forward the previously agreed amounts of ERDCs arising prior to 1 April 2004. The methodology and the mechanism is set out in the pension deficit allocation methodology.