

RIIO-ED1: Draft determinations for the slow-track electricity distribution companies

Overview

Consultation

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Overview:

This document summarises our proposals for the settlements (draft determinations) for five electricity distribution companies for the next price control (RIIO-ED1). It is written to be accessible by a wide range of stakeholders, and is supported by a number of more technical supplementary annexes.

In February 2014 we settled the price control of one group early (fast-track). The remaining (slow-track) companies submitted revised business plans in March. The draft determinations in this document are based on our analysis of these plans.

We welcome stakeholders' views. We will take responses to this consultation into account when developing our final determinations. We will publish the final determinations for the slow-track companies in November 2014.

Context

In the RIIO-ED1 price control review we will set the outputs that the 14 electricity distribution network operators (DNOs) need to deliver for their consumers and the associated revenues they are allowed to collect. The review covers the eight year RIIO-ED1 price control period which lasts from 1 April 2015 to 31 March 2023.

In March 2013 we published our decision on the key elements of the regulatory framework (strategy) that the DNOs would need to understand in order to develop their business plans. The DNOs submitted their business plans in July, and in February 2014 we published our decision to set the price control of one group early. The remaining DNOs submitted revised plans in March. The documents we are publishing here summarise our assessment of these plans, and our draft determinations for the companies.

Associated documents

RIIO-ED1: Draft determinations for the slow-track electricity distribution companies – supplementary annexes

- Assessment of the RIIO-ED1 re-submitted innovation strategies
- RIIO-ED1 business plan expenditure assessment
- RIIO-ED1 business plan financial issues
- RIIO-ED1 draft determinations Financial Model
- RIIO-ED1 draft determinations detailed figures by company
- RIIO-ED1 draft determinations PWC advice on Ofgem's financeability assessment
- RIIO-ED1 Glossary

The supplementary annexes can be found on our website at the following link:

<https://www.ofgem.gov.uk/publications-and-updates/riio-ed1-draft-determinations-consultation-slow-track-electricity-distribution-companies>

Decision to fast-track Western Power Distribution

<https://www.ofgem.gov.uk/ofgem-publications/86375/fast-trackdecisionletter.pdf>

Assessment of RIIO-ED1 business plans and fast-tracking

<https://www.ofgem.gov.uk/ofgem-publications/84600/assessmentofriio-ed1businessplansletter.pdf>

Timing of decision on electricity distribution networks' revenue for 2015-16

<https://www.ofgem.gov.uk/ofgem-publications/86768/ed1revenuechangedecision.pdf>

Decision on our methodology for assessing the equity market return for the purpose of setting RIIO-ED1 price controls

<https://www.ofgem.gov.uk/publications-and-updates/decision-our-methodology-assessing-equity-market-return-purpose-setting-riio-ed1-price-controls>

Strategy Decision for RIIO-ED1 – Overview

<https://www.ofgem.gov.uk/publications-and-updates/strategy-decision-riio-ed1-overview>

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Executive Summary

The electricity distribution price control review (RIIO-ED1) is the first review in electricity distribution to use our new RIIO model (Revenue = Incentives + Innovation + Outputs). RIIO provides companies with strong incentives to meet the needs of consumers and the challenges of delivering a sustainable energy sector at a lower cost. It provides a transparent and predictable framework that rewards the delivery of agreed outputs.

This document presents our proposed settlements (draft determinations) for the 10 DNOs remaining in the review process. These settlements will apply for the eight-year price RIIO-ED1 control period from 1 April 2015 to 31 March 2023.

We concluded the price control of one group (Western Power Distribution, WPD) early, based on the high quality of its business plan and the value it provided to consumers. The remaining DNOs have revised their plans. They have provided a strong package of outputs, with more justification at a lower cost (by more than £700m) than their previous plans.

Our proposals provide the DNOs with the funding they need to operate and develop the networks, while ensuring value for money for consumers.

DNOs are incentivised to deliver a comprehensive set of outputs.

The DNOs have accepted our outputs. They have strong incentives to provide a safe, reliable network while managing their carbon footprint and broader environmental impact. They are incentivised on how well they satisfy customers and engage with stakeholders. They also have strong incentives to provide a better service for connecting customers and to play a full role in identifying and assisting vulnerable customers and the fuel poor. They are incentivised to deliver these outputs at efficient cost.

DNOs have detailed how they plan to accommodate uncertain levels of low carbon technologies on their networks. The package of outputs and funding for innovation trials will ensure they do this efficiently, using smart grid solutions while providing good service to new and existing customers.

Expenditure allowances reflect our view of efficient costs of delivering the required outputs and services.

We have assessed DNOs' cost forecasts using a range of benchmarking techniques. Our analysis has identified material differences between their proposed costs and our assessment of the efficient level of costs. In our comparative assessment we judge DNOs could further reduce their expenditures by more than £650m.

Using the latest data our forecast of the movement in DNO costs relative to the RPI measure of inflation is £850m lower than forecasts in the DNOs' plans. However, there is significant uncertainty in any forecast of these costs given the recent

economic downturn. We are therefore looking at whether an alternative mechanism would provide better value for consumers.

In addition we don't believe that the DNOs have sufficiently considered the potential savings they can make to the cost of running their networks by adopting smart grid solutions. It is important that consumers receive adequate returns on their investment in innovation trials and the roll-out of smart meters. Evidence suggests that the DNOs can save around £400m more than they have forecast.

Overall, following RIIO weighting (interpolation) of company and Ofgem forecasts, we have reduced companies' allowed total expenditure by £1.4bn over RIIO-ED1.

The financial package means efficient DNOs can finance their activities.

We propose an allowed cost of equity of 6.0 per cent (post-tax real). We propose that DNOs can recover efficient debt costs based on a revised index of comparable companies' debt costs. Our revised debt index reduces the risks that DNOs face from interest rate uncertainty.

We believe our draft determination proposals provide the basis for all DNOs to finance their activities during the course of RIIO-ED1.

Impact on customer bills

Our proposals result in a reduction in allowed revenues of around 5.5 per cent on average over the RIIO-ED1 period relative to the current price control (DPCR5).

The reduction in revenues translates into an underlying reduction of approximately £12 in the typical household bill over RIIO-ED1.¹

Providing certainty on 2015-16 opening base revenue allowances

As committed in December 2013, we are fixing the DNOs' base revenues for 2015-16 at the amounts in our draft determinations. This will give suppliers earlier confirmation of the DNOs' 2015-16 charges. Any difference between draft and final determinations will be recovered over the remainder of RIIO-ED1.

Next steps

These are our draft determinations for consultation. We welcome your views, and will consider them when we develop our final determinations. Please send responses to Anna Rossington at RIIO-ED1@ofgem.gov.uk by 26 September 2014. We will publish the final determinations for the slow-track DNOs in November 2014.

¹ The government's December 2013 measures to reduce energy bills accelerated the effect of the RIIO-ED1 savings.

1. Introduction

Chapter Summary

Shows the purpose and structure of this document. We include a map of how this document links to the supplementary documents published at the same time.

The RIIO-ED1 review

1.1. Significant expenditure is needed in Britain's gas and electricity networks over the next decade. This is to ensure consumers continue to receive safe, reliable network services and to meet environmental challenges. It is more important than ever that network companies can show consumers that they are getting value for money and that charges are contained.

1.2. The electricity distribution price control review (RIIO-ED1) is the first review in electricity distribution to use our new RIIO model (Revenue = Incentives + Innovation + Outputs). RIIO is designed to drive real benefits for consumers; providing companies with strong incentives to meet the challenges of delivering a sustainable energy sector at lower cost. RIIO puts sustainability alongside consumers at the heart of what network companies do. It provides a transparent and predictable framework that rewards timely delivery.

1.3. In March 2013 we published our strategy decision² on the key elements of the regulatory framework for RIIO-ED1. This included the outputs that we require companies to deliver, the incentive framework and financial parameters.

1.4. A key part of the RIIO model is for companies to develop a well-justified business plan. This should be informed by enhanced stakeholder engagement. The strategy decision provided the framework for the 14 distribution network operators (DNOs) to develop their business plans for the next electricity distribution price control (RIIO-ED1). They submitted these plans and published them on their websites on 1 July 2013.

1.5. Under RIIO, where a DNO steps up to the challenge of submitting a realistic and well-justified business plan that provides demonstrable value to consumers, we may apply proportionate treatment. This is where we subject particularly high quality elements of a company's plan to lighter touch regulatory scrutiny. If a plan is sufficiently high quality and provides good value overall, we consider it for fast-tracking. This means we accept the business plan as submitted and conclude the company's price control review early.

² See Ofgem (4 March 2013, ref: 26/13) Strategy decision for the RIIO-ED1 electricity distribution price control:

<https://www.ofgem.gov.uk/ofgem-publications/47067/riioed1decoverview.pdf>

1.6. We assessed the plans in the round, focussing on whether any were of a high enough standard to be accepted in their entirety. DNOs were expected to include all appropriate information and justifications within their plans.

1.7. The possibility of being fast-tracked inspired all DNOs to raise their game. However only WPD cleared our high hurdle. The other DNOs' plans showed areas of strength, but all had scope for improvement. In February we published our decision to fast-track WPD's four DNOs.

1.8. The remaining 10 DNOs submitted revised business plans in March 2014. They also published them on their websites. The draft determinations in this document are a result of our assessment of these revised plans. In their slow-track plans, the DNOs submitted improved justifications and output packages at lower cost – with a £700m reduction in forecast expenditures versus their fast-track plans. The DNOs have published their revised plans on their websites, including what they have changed since their fast-track proposals and why.

Stakeholders

1.9. Stakeholders play a key role in RIIO. DNOs are assessed on the quality of engagement with their stakeholders, and how this has been reflected in their business plans. At the same time, we have a multi-layered engagement process to ensure that all parties have the opportunity to give their views.

1.10. In March we published an open letter seeking views on the revised business plans.³ We received responses from 17 stakeholders, which we have taken into consideration in our assessment.⁴ Appendix 2 contains a summary of the responses. Several focused on how the DNOs' plans reflect their areas of interest. Many confirmed their support of a particular DNO's plan.

1.11. DNOs presented summaries of their business plans at a Price Control Review Forum (PCRF) and PCRF members provided summary views.⁵

1.12. Our RIIO-ED1 Consumer Challenge Group (CCG) also provided its views on the revised plans. The CCG is a small group of consumer experts which acts as a 'critical friend' to Ofgem. It provides an external perspective as we seek to ensure that the price control settlement is in the best interests of existing and future consumers. It advised us that we needed to design a package that squares financial and cost decisions with the needs of consumers.

³ <https://www.ofgem.gov.uk/ofgem-publications/86977/riioed1bpublicationseekingviews.pdf>

⁴ We have published the non-confidential responses on our website:
<https://www.ofgem.gov.uk/publications-and-updates/open-letter-consultation-revised-riio-ed1-business-plans>.

⁵ <https://www.ofgem.gov.uk/publications-and-updates/price-control-review-forum-%E2%80%93-23-april-2014-summary-proceedings>

Future changes to the settlements

1.13. There are a number of elements in the DNOs' allowed revenues that are either set independently of RIIO-ED1, or which will be finalised once RIIO-ED1 begins.

- The cost of debt allowance is set on an index. We will update the forecast cost of debt at final determinations. The actual cost of debt will be included in DNOs' revenues every year via the Annual Iteration Process.
- Allocations to tax pools, which will be updated prior to final determinations.
- Allowances for recovery of pension deficit, which we set following triennial pension reasonableness reviews. We are doing a review at the moment (in parallel to RIIO-ED1) and aim to have final numbers by final determinations.
- The 'close-out' of DPCR5 incentives which cannot be finalised until DPCR5 has ended. This is in order to use the reported data for the regulatory year from April 2014 to March 2015. We asked the slow-track DNOs to provide forecasts of these items in their plans, and in some cases we have updated the forecasts based on more recent information. These numbers are indicative until we receive the final numbers in RIIO-ED1.

Implementing the price control

1.14. The DNOs' final determinations are implemented via conditions in their licences. The licence governs:

- the base revenue⁶ a DNO may collect from its customers
- the outputs it must deliver, and the rewards/penalties for over-/under-delivery⁷
- uncertainty mechanisms.

1.15. We issued modifications to WPD's licence in May 2014 based on its fast-track final determinations. We will publish a statutory consultation on the licence modifications for the slow-track DNOs in December. We will issue their revised licences in February 2015.

Monitoring the price control

1.16. We are developing our approach to monitoring DNOs' delivery under RIIO, building on the existing regulatory instructions and guidance (RIGs) and the electricity distribution Annual Report. We will consult on the RIGs in the autumn.

⁶ Base revenue is the core amount of money that a network company can earn on its regulated business in order to recover the efficient costs of carrying out its activities. It does not include any incentive revenues.

⁷ There are included in the Detailed figures by company supplementary annex.

1.17. The DNOs have adopted our data assurance process developed for all network companies. It requires companies to demonstrate the risk of reporting errors associated with different data elements and the assurance mechanisms they have in place.

Overview of this document and associated documents

1.18. In this document we describe the process we used for assessing the slow-track business plans and how we reached our proposals for the draft determinations. Our assessment is based on the DNOs' revised plans. We highlight in this document where we have accepted elements of these plans and where we have made changes in our draft determinations.

1.19. We use the term fast-track assessment to refer to the assessment process between the DNOs first submitting their business plans in July 2013 and our publication of the assessment of those plans in November 2013. We use the term slow-track assessment to refer to our assessment of the revised plans, between their submission in March 2014 and this publication.

1.20. This document is intended to be accessible by a wide range of interested stakeholders. We have also published detailed supplementary annexes on our cost assessment methodology and our financial assessment. These documents are more technical, and will be of interest to more specialist readers.

1.21. We have also published a consultation on our assessment of all DNOs' network innovation strategies and their provisional Network Innovation Allowances (NIAs). The RIIO-ED1 framework provides strong incentives to innovate as part of normal business, but research, development, trials and demonstration projects are speculative in nature with uncertain returns. In our strategy decision we said each DNO will get the NIA to fund small-scale innovative projects. The size of the NIA depends on the quality of the DNOs' innovation strategy which should be well thought through and demonstrate how the DNO will focus its innovation efforts over the price control period.

1.22. The DNOs submitted innovation strategies as part of their fast-track business plans, and submitted revised strategies in March 2014. We will publish our final decision on the value of the NIA for each DNO alongside our final determinations in November 2014.

1.23. We have put all the detailed tables of figures that we will include in the slow-track licences in a separate document.

1.24. This document is structured as follows:

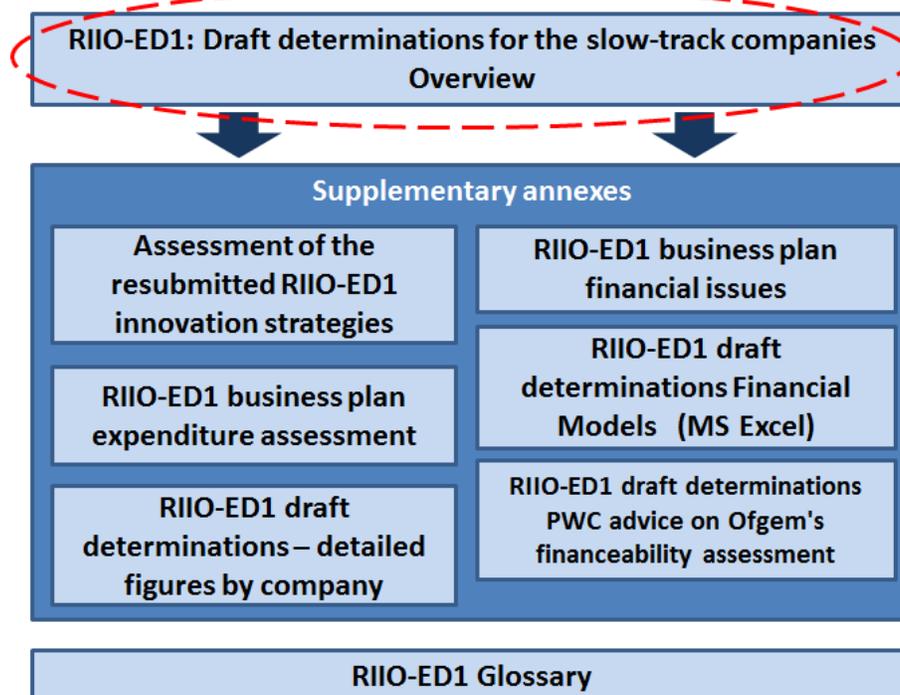
- Chapter 2 summarises of our assessment of the plans in relation to our five high level criteria

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- Chapters 3, 4, 5 and 6 contain more detail on our assessments of each of the criteria in turn (outputs, efficient expenditures, efficient financing and uncertainty and risk)
- Chapter 7 is our decision on the allowed revenues for 2015-16 based on our draft determinations
- Chapter 8 has the next steps in this review
- Appendix 1 summarises questions in this consultation, while Appendix 2 summarises respondents' views on the revised plans
- Appendices 3 to 7 are summaries of the slow-track DNOs' draft determinations
- Appendix 8 is an overview of the DNOs' current performance
- Appendix 9 assesses the impact of these draft determinations
- Appendix 10 gives background information on the distribution networks

1.25. Figure 1.1 below shows all the RIIO-ED1 documents we have published today. There are links to all these documents in the 'Associated Documents' section at the top of this document.

Figure 1.1: Map of the RIIO-ED1 draft determinations documents



2. Summary of assessment

Chapter Summary

Summarises our assessment of the slow-track DNOs' business plans against the five criteria.

Question 1: Do you think our assessments for each of the five criteria are appropriate?

Assessment criteria

2.1. In our strategy decision we described the five core criteria against which we would assess the business plans and the detailed questions we would consider for each criterion. They are:

- **Process:** Has the DNO followed a robust process?
- **Outputs:** Does the plan deliver the required outputs?
- **Resources (efficient expenditure):** Are the costs of delivering the outputs efficient?
- **Resources (efficient financing):** Are the proposed financing arrangements efficient?
- **Uncertainty & risk:** How well does the plan deal with uncertainty & risk?

2.2. We stated that in order to be fast-tracked, a DNO would need to demonstrate that its plan met all the criteria. In the slow-track assessment we have used the same criteria. Where a DNO has not satisfied a criteria we have proposed changes to its plan in its draft determinations.

2.3. For the fast-track assessment we used a 'traffic light' score for each of the five criteria. These traffic lights gave a score for each of the DNOs' performance. The scoring was as follows:

- green – areas of companies' plans that are broadly acceptable to us without further analysis
- amber - areas where we consider some work is needed to produce acceptable proposals in the business plan submitted at slow-track
- red - areas where we consider a lot of work is needed to produce acceptable proposals in the business plan submitted at slow-track.

2.4. We have used a similar traffic light score for the slow-track assessment. This time the traffic lights indicate the scale of the changes we have made in our draft determinations versus the DNOs' revised business plans.

2.5. The result of our fast-track assessment is shown in Table 2.1.

Table 2.1: Summary assessment of the DNOs' fast-track business plans

DNO Group	Licensee ⁸	Process	Outputs	Resources – efficient costs	Resources – efficient finance	Uncertainty and risk
Western Power Distribution	WMID	Green	Green	Green	Green	Green
	EMID	Green	Green	Green	Green	Green
	SWALES	Green	Green	Green	Green	Green
	SWEST	Green	Green	Green	Green	Green
Electricity North West Ltd	ENWL	Green	Green	Yellow	Green	Green
Northern Powergrid	NPgN	Green	Green	Yellow	Green	Green
	NPgY	Green	Green	Yellow	Green	Green
UK Power Networks	LPN	Green	Yellow	Red	Green	Green
	SPN	Green	Yellow	Yellow	Green	Green
	EPN	Green	Green	Red	Green	Green
SP Energy Networks	SPD	Yellow	Red	Red	Green	Yellow
	SPMW	Yellow	Red	Red	Green	Yellow
SSE Power Distribution	SSEH	Green	Red	Yellow	Green	Red
	SSES	Green	Yellow	Yellow	Green	Red

2.6. Most DNOs have not changed their business plans for elements we scored green at fast-track, unless we identified specific concerns. The exception to this is cost of equity. We scored the DNOs green for resources – efficient finance at fast-track, although we tested the plans against realistic downside cost of equity scenarios. In our February 2014 decision on our methodology for assessing the equity market return⁹ we gave our minded to position that 6 per cent was appropriate for the slow-track companies. We explain our assessment on this in the section titled Criterion 4: Efficient financing of this chapter, and also in Chapter 5.

2.7. Table 2.2 shows our scoring of the revised plans. The asterisks in the scoring for resources - efficient costs indicates that while we have shown some of the DNOs to be comparatively efficient (and therefore scored them green), there are some areas where all the DNOs' forecast costs are above our benchmark. We are therefore proposing to reduce the requested expenditures in all the slow-track business plans. We explain this further in the Criterion 3: Efficient expenditures section of this chapter, and also in Chapter 4.

2.8. As a result of this assessment our draft determinations contain different expenditures and financing arrangements to those submitted by the slow-track DNOs in their revised business plans.

⁸ An explanation of the licensee acronyms and map of the distribution networks is in Appendix 10

⁹ <https://www.ofgem.gov.uk/publications-and-updates/decision-our-methodology-assessing-equity-market-return-purpose-setting-riio-ed1-price-controls>

Table 2.2: Summary assessment of the DNOs' slow-track business plans

DNO Group	Licensee	Process	Outputs	Resources – efficient costs	Resources – efficient finance	Uncertainty and risk
Electricity North West Ltd	ENWL			*		
Northern Powergrid	NPgN			*		
	NPgY			*		
UK Power Networks	LPN			*		
	SPN			*		
	EPN			*		
SP Energy Networks	SPD			*		
	SPMW			*		
SSE Power Distribution	SSEH			*		
	SSES			*		

Criterion 1: Process

2.9. At fast-track we thought all the plans were well presented. We noted that they were a big improvement on submissions in previous price controls. We thought their processes were all acceptable except for SPEN's. All DNOs submitted data containing errors. But SPEN's had major data problems which significantly affected our ability to benchmark. For slow-track the data quality of all plans, particularly SPEN's, has improved.

2.10. The slow-track DNOs have continued to engage with stakeholders when revising their plans. However, the level of engagement varies between companies. Overall the DNOs have engaged less for slow-track than they did for fast-track. We note that stakeholder engagement for the slow-track business plans is primarily limited to output areas. In the future we hope that DNOs will discuss a wider range of issues with stakeholders (eg the amount of risk that DNOs bear relative to consumers and expenditure decisions) to help inform key business decisions.

2.11. As for fast-track, the weakest aspect of the plans is their strategy for long term delivery. However, overall we feel the slow-track plans are all acceptable for the process criterion.

Criterion 2: Outputs

2.12. Our strategy decision detailed outputs that we expect the DNOs to deliver under the six primary output categories: safety, environment, customer satisfaction, connections, social obligations, and reliability and availability.

2.13. At fast-track all DNOs based their plans on the outputs framework. However the quality of strategies and explanations for the delivery of these outputs varied. Since fast-track most DNOs have addressed the weaknesses we identified. In Chapter 3 we explain this in more detail.

2.14. All DNOs commit to complying with legislative safety requirements, and all accept our customer service and connections target setting proposals. All accept our requirements on reliability and availability, and those that we judged poorly on their secondary deliverables have now improved. All DNOs' strategies to help consumers in vulnerable situations are now acceptable. They have worked on their strategies for managing losses, although we are still disappointed with the overall standard.

2.15. Overall we have scored all the slow-track DNOs green for their plans for output delivery.

2.16. All the DNOs include commitments to stakeholders in their plans. Most of these are not SMART (specific, measurable, achievable, relevant, timebound) and we therefore view them more as ambitions rather than outputs that we can hold the companies to. However we will have a licence condition for all DNOs which will require them to publish an annual report on their progress on delivering the commitments in their plans. This will create a reputational incentive for them to deliver. We expect that stakeholders will engage with the DNOs on their performance on delivering their commitments.

Criterion 3: Efficient expenditures

2.17. We explain how we have assessed the efficiency of the slow-track plans in Chapter 4.

2.18. Our assessment results are shown in Table 2.3 below compared with the DNOs' submissions. We have also provided an annualised comparison against the actual (and forecast) expenditures in the current price control in Table 2.4.

Table 2.3: Results of our expenditure assessment by DNO (2012-13 prices)

DNO Group	DNO	Slow-track submitted totex* (£m)	Slow-track totex in draft determinations (£m)	Difference (£m)	Difference (%)	Efficiency score
ENWL	ENWL	1,877	1,794	-83	-4%	105%
NPg	NPGN	1,362	1,243	-119	-9%	110%
	NPgY	1,810	1,685	-125	-7%	107%
UKPN	LPN	1,961	1,749	-212	-11%	112%
	SPN	1,859	1,710	-148	-8%	109%
	EPN	2,765	2,537	-228	-8%	109%
SPEN	SPD	1,564	1,519	-45	-3%	103%
	SPMW	1,927	1,687	-240	-12%	114%
SSEPD	SSEH	1,210	1,097	-114	-9%	110%
	SSES	2,425	2,301	-124	-5%	105%
Total		18,760	17,321	-1,439	-8%	108%

*NPg included an additional £61m in its slow-track plan for costs associated with Network Rail's electrification programme. We are proposing an uncertainty mechanism for these costs for all slow-track DNOs. So we have not included this amount in our assessment.

Table 2.4: Comparison of our assessment, submissions and current expenditure – on an annualised basis by DNO¹⁰ (2012-13 prices)

DNO Group	DNO	DPCR5 totex (4 years to date) (£m)	DPCR5 totex (5 years) (£m)	Fast-track submitted totex (£m)	Slow-track submitted totex* (£m)	Slow-track totex in draft determinations (£m)
ENWL	ENWL	240	244	237	235	224
NPg	NPGN	160	163	171	170	155
	NPgY	210	221	232	226	211
UKPN	LPN	209	220	246	245	219
	SPN	226	228	237	232	214
	EPN	340	344	358	346	317
SPEN	SPD	194	198	218	195	190
	SPMW	227	239	278	241	211
SSEPD	SSEH	123	125	154	151	137
	SSES	271	283	311	303	288
Total		2,201	2,265	2,441	2,345	2,165

*see note for Table 2.3 above.

2.19. We make a comparative assessment of the DNOs' forecasts to determine our view of efficient cost using our benchmarking tools. In addition there are two areas in which all DNOs' costs are higher than our view. These are their estimates of real price effects (RPEs), and the benefits they can achieve from the introduction of smart grid solutions.

2.20. RPEs are the potential difference between changes in inflation (added each year in the price control) and the prices of certain major cost elements (ie labour, raw materials).

2.21. Smart grid technology and associated contractual arrangements with customers and generators may offer DNOs a more cost-effective way of resolving constraints on the network than investing in more assets. They may also give the DNOs more flexibility, especially if they are unsure of longer term demand.

2.22. Since no company achieves our view of efficient cost (indicated by the efficiency score in Table 2.2), according to our strategy decision, no DNO would be eligible for an ex ante reward. However we think it is right to reward companies that have provided good information that has aided our comparative benchmarking. We are therefore proposing to revise our strategy decision and adjust the reward/penalty range so that the best performing DNOs receive a reward. This is explained further in Chapter 4.

2.23. Our traffic light markings are based on the efficiency scores.

¹⁰ We show this on an annualised basis in order to be able to compare DPCR5 (a 5-year period) with RIIO-ED1 (8 years). The 5 year figure for DPCR5 includes 4 years actuals and 1 year forecast.

Criterion 4: Efficient financing

Technical accounting

2.24. The DNOs' slow-track business plans comply in all material respects with the technical accounting policies specified in our strategy decision. We agree with their assumptions for asset lives, transition and capitalisation rates. Allowances for pension deficit payments are outside the scope of the RIIO-ED1 review. We will assess those assumptions as part of the pensions reasonableness review taking place during 2014 in parallel with RIIO-ED1.

Corporate finance

2.25. The slow-track DNOs' proposals have some common financing features.

2.26. Most highlight problems with a 10-year cost of debt index. They argue that they were only prepared to accept it at fast-track because, if fast-tracked, they would have received 2.5 per cent of totex. This would have broadly offset any potential underfunding of their debt interest. The DNOs with the highest interest cost burdens, ENWL and NPg, argue that their circumstances are exceptional enough to justify a different index specification.

2.27. We recognise that there are problems with using the 10-year index and are proposing to modify it. We propose to use a trailing average of benchmark bond yields that extends trombone-like each year from a 10-year period in 2015-16 to a 20-year period by 2025-26. Our analysis indicates this redefined index will offer the sector a close match between cost of debt allowances and actual debt costs across a wide range of future interest rate scenarios. This will offer the sector significant protection against market interest rate uncertainty.

2.28. On the cost of equity, we had asked DNOs to prepare their business plans on the basis of our methodology prior to our February 2014 decision on equity market returns. Nonetheless, most DNOs acknowledge our methodology decision (6 per cent) in their business plans, though only UKPN accepts it. While NPg states it has submitted on the basis of our instructions, it chose to use a figure of 6.7 per cent rather than the 6.3 per cent benchmark which we used in our November 2013 assessment. SPEN and SSEPD cite Ofgem statements that the best-performing companies should be able to achieve double-digit returns on regulatory equity, and argue that a cost of equity estimate of 6.0 per cent would make this an unrealistic prospect. Other companies argue for proportionate treatment with WPD and challenge our rationale.

2.29. We said in February 2014 that we were minded to adopt an assumption of 6.0 per cent. This was a reduction of 0.3 per cent to the benchmark cost of equity that we had used to assess the fast-track business plans. We have not received any

evidence to make us change our view. Our draft determinations use a cost of equity of 6 per cent.

2.30. We believe our draft determination proposals provide the basis for all DNOs to finance their activities during RIIO-ED1, with one possible exception. We are asking that DNO to present plans to us of how it can improve its financial robustness in a way that is present value neutral to its price control settlement.

2.31. We provide further analysis in Chapter 5 and in our Financial issues supplementary annex.

Criterion 5: Uncertainty and risk

2.32. In their fast-track business plans the majority of the DNOs agreed with the uncertainty mechanisms in our strategy decision. SSEPD has now withdrawn the additional mechanisms it proposed at fast-track which we considered would have provided it with significant cost protection at customers' expense.

2.33. As at fast-track the plans do not provide much detailed evidence to support the forecast low carbon technology volumes. While all describe how they will flex from their chosen scenario, not all consider the impact of different scenarios in their wider business.

2.34. Most DNOs have not changed their descriptions of residual risk. We thought most were lacking in this area at fast-track, but that this was not significant enough to change the scoring. We scored SPEN down in this area at fast-track and it has improved its proposals to an acceptable level.

2.35. Overall we have concluded that all the slow-track plans are acceptable with respect to the way they treat uncertainty and risk.

3. Outputs

Chapter Summary

Explains our assessment of the outputs criterion in more detail. There are no questions in this chapter.

3.1. Under the RIIO model, we committed to providing clear and comprehensive outputs that the network companies must deliver. These outputs, and the incentives to encourage the companies to deliver them, should ensure that the companies provide value for money for current and future consumers while playing a full role in developing a sustainable energy sector. In our strategy decision we detailed output measures against the six primary output categories: safety, environment, customer service, connections, social obligations, and reliability and availability.

3.2. For many of the outputs we set the level (or baseline) to be delivered, taking into account stakeholder views. However, the DNOs were able to justify alternatives. In some areas, they had to specify their own baselines (for example for the secondary deliverables asset health and loading indices).

3.3. All of the DNOs have built on the outputs framework we described in our strategy decision. The quality of strategies and explanations for delivering these outputs varies across the DNOs. Most DNOs have not changed this aspect of their plans significantly from the fast-track plans they submitted in July 2013. As at fast-track, we have considered the DNOs' historical performance in delivering the outputs as a guide to how plausible we think their future plans are.

Safety

3.4. The primary output for health and safety is compliance with the safety requirements set out in legislation and enforced and regulated by the Health and Safety Executive (HSE).

3.5. Secondary deliverables on asset health, criticality and composite risk also include elements of safety performance. These will ensure that the DNOs do not risk their compliance with future safety requirements by decisions made in RIIO-ED1.

3.6. In their slow-track plans all DNOs commit to complying with legislative safety requirements.

Customer service

3.7. The customer service outputs are designed to incentivise DNOs to think about their customers' needs and how to best engage with them.

3.8. The Broad Measure of Customer Service (BMCS) comprises three elements: an assessment of the company's ongoing stakeholder engagement, a measure of how well the DNO resolves complaints, and a survey of customer satisfaction that incorporates the views of customers who have made a general enquiry, experienced an interruption or required a connection.

3.9. A DNO's performance in each component of the BMCS is subject to a separate financial incentive. Performance for the customer satisfaction survey and complaints elements is measured against absolute targets.

3.10. We considered that all DNOs' fast-track customer service proposals were acceptable. Most DNOs made no changes to their customer service proposals in their slow-track plans. SPEN provides additional information about how it has delivered improvements in performance and how it will continue to improve the service during DPCR5. Overall, we consider that all DNOs' customer service proposals remain acceptable.

Conditions for connections

3.11. Under the Electricity Act, DNOs have to offer a connection to any customer who wishes to connect to the network. A customer seeking connection has to pay for the cost of the connection and expects to get a good service. When customers are not connected in the timescales they require the consequences can be considerable, both to individual customers and to society more generally.

3.12. Smaller connections customers¹¹ are protected by the connection element of the BMCS and a time to connect incentive. DNOs' time to connect performance will be measured against a target (which increases over RIIO-ED1) for the time taken from initial application to connection quotation and the time taken from quotation acceptance to connection completion.

3.13. The Incentive on Connection Engagement (ICE) will drive the DNOs to understand and satisfy the particular requirements of different types of larger connection customers.

3.14. At fast-track we considered that the DNOs' connection proposals were broadly acceptable. Some DNOs have made minor changes to their slow-track business plans. ENWL has amended its time to connect targets to align them with ours. It consulted stakeholders about these changes and they considered that they were acceptable. SPEN has provided additional information about how it will improve its connection service. NPg proposes to bring forward the delivery date of its time to connect targets from 2015 to 2014. The rest of the DNOs' connection proposals remain unchanged. Overall we consider that the DNOs' connection proposals remain acceptable.

¹¹ typically at low voltages and up to no more than four properties.

Environment

3.15. The environmental outputs ensure DNOs play their role in achieving broader environmental objectives and reduce their own carbon footprint. This is in addition to the customer service and connections outputs which should improve the service received by renewable generators connecting to the distribution network and the way in which the RIIO-ED1 package will ensure DNOs anticipate the low carbon technologies potentially connecting to their networks.

Losses

3.16. System losses are the largest component of a DNO's carbon footprint, and are an inevitable consequence of transferring electricity across the distribution networks. They can be reduced through various actions by the DNOs and other stakeholders.

3.17. Unfortunately we have experienced major problems with the DPCR5 losses output and incentive mechanism due to major fluctuations in the relevant data. This has resulted in us removing the DPCR5 mechanism.

3.18. Until smart meters are rolled out, there is no way to assess consumption objectively and measure accurately the losses on the network. From 1 April 2015 DNOs' licences will require them to ensure that losses on their networks are as low as reasonably practicable, and to maintain and act in accordance with their published losses strategies. The DNOs were able to justify expenditures in their business plans on the basis of carbon reduction. There is also a discretionary reward for efficient and innovative loss reduction initiatives during the RIIO-ED1 period.

3.19. We do not approve the losses strategies: DNOs must satisfy themselves that they are compliant. Despite some progress made in addressing feedback provided at fast-track, we remain concerned, based on the evidence and strategies provided to us so far, whether the DNOs will be able to meet the licence requirement.

3.20. We expect all DNOs to revise their strategies. They should address the feedback given and questions asked during the assessment process and ensure strategies are supported by robust, comprehensive and up-to-date cost-benefit analyses (CBAs). They should also demonstrate that they have evaluated all reasonably practicable losses-management measures and assessed the CBAs of a full range of options (noting the proposed programmes of other DNOs). They should ensure these analyses are clearly referenced in their strategies and that proposed losses reduction actions are described clearly enough that they can report against them. DNOs will be required by their licence to report on their actions to manage distribution losses.

3.21. We also expect major benefits to flow to consumers as a result of using the smart metering infrastructure to manage the volume of electricity lost on the

distribution network. DNOs should do more work to identify potential loss reduction benefits and measures to achieve them.

3.22. DNOs should note the specific comments we make on their individual losses proposals in the DNO-specific appendices. We have written to WPD separately about its losses strategy.¹²

Other environmental impacts

3.23. DNOs have to report their business carbon footprint (BCF) annually, by publishing an annual league table of percentage change as a reputational incentive. There is an allowance for undergrounding overhead lines in areas of outstanding natural beauty and national parks. DNOs also have a reputational environmental reporting requirement¹³ to address concerns around public accountability and integration of broad environmental learning and performance.

3.24. Our assessment remains largely the same as at fast-track in this area as there have been few changes in the plans. The exception is SPEN, which has improved the clarity and justification of its environmental targets. We remain disappointed with the low level of ambition for some environmental activities. We will provide greater clarity in RIIO-ED1 RIGs, particularly on BCF baselines and reporting of sulphur hexafluoride (SF6) mitigation.

3.25. DNOs included SF6 mitigation costs and volumes in their asset replacement. Since we could not separate them we included them in the asset replacement benchmarking. We are encouraged that all the slow-track DNOs propose to spend their full allowance for the undergrounding of lines in national parks and areas of outstanding natural beauty. In their revised plans, several DNOs (NPg, UKPN and SPEN) have provided more detail on stakeholder engagement, prioritisation and delivery for their undergrounding projects. The undergrounding allowances for each DNO are included in the detailed figures by company document. We note that the majority of DNOs advocate PFT¹⁴ technology as an effective technology as it appears to save time and costs in detecting leaks from oil-filled cables (otherwise known as fluid filled cables, FFC) compared with conventional approaches. We expect all DNOs to consider this technology as an industry standard practice.

¹² The letter to WPD is published here: <https://www.ofgem.gov.uk/publications-and-updates/riio-ed1-draft-determinations-consultation-slow-track-electricity-distribution-companies>.

¹³ The Environment Report will be a requirement under standard licence condition 47 of the DNO's Electricity Distribution Licence. We recently consulted on the accompanying guidance document outlining the content this report should have. We are due to publish the final guidance document shortly.

<https://www.ofgem.gov.uk/publications-and-updates/consultation-draft-riio-ed1-environment-report-guidance-document-ergd>

¹⁴ Perfluorocarbons are injected into oil-filled cables. This improves the accuracy of leak detection. The Environment Agency has in place certain requirements for DNOs to mitigate any leakage of this fluid, which could contaminate local environment and groundwater sites.

Reliability

3.26. Customers want a reliable supply. The interruptions incentive scheme (IIS) drives DNO performance on the number of customer minutes lost and the number of customer interruptions against DNO-specific targets.¹⁵

3.27. There are secondary deliverables for reliability: the health index, criticality index and load index. The health index is a DNO-specific composite measure of age, asset condition and fault history among other things. Criticality measures the impact of asset failures. The load index is a DNO-specific measure of comparative loading.

3.28. DNOs also have an allowance to address customers deemed to be worst served in terms of reliability.

3.29. Statutory regulations set out guaranteed standards of performance on reliability, under which a customer is entitled to a fixed payment from the DNO if their supply has been interrupted for a certain period.¹⁶ We are reducing this period to 12 hours (from 18 hours currently) and are removing exemptions so that all customers receive payments for being off supply. In our strategy decision we decided it was right for DNOs to pay customers £35 following severe weather resulting in a prolonged period without supply, followed by additional payments of £35 for successive periods of 12 hours without supply. Following the Christmas 2013 storms, we consulted on doubling the initial and subsequent payments to £70 and increasing the cap per customer to £700. We have announced that we intend to adopt these proposals¹⁷ and will consult in the coming months on introducing a new statutory instrument for RIIO-ED1.

3.30. In our strategy decision we recognised the potential impact of flooding on supply. The UK's climate is changing and this is likely to affect average conditions as well as the frequency and severity of extreme weather and flooding. Without good risk management this could harm the operation of DNO networks. DNOs will need to show how these risks have been assessed using the latest evidence. They should explain how they plan to manage climate risks to make sure that new and existing schemes are sustainable. This is particularly relevant for network investment where new assets will be in operation for several decades. We will monitor and publish DNO performance against secondary deliverables for network resilience.¹⁸

3.31. We described our methodology for setting the reliability targets in the strategy decision. No DNO has proposed tighter reliability targets at slow-track.

3.32. SPEN's and SSEPD's asset health and criticality indices were incomplete or underdeveloped in their fast-track business plans. They have now submitted more

¹⁵ There are separate targets for planned and unplanned interruptions.

¹⁶ The guaranteed standard penalties are paid by the DNOs. The increase in penalties arising from this change in standard will not affect customer charges.

¹⁷ <https://www.ofgem.gov.uk/ofgem-publications/88916/gsmindedtodecision.pdf>.

¹⁸ Flooding, Black Start and overhead lines.

comprehensive information. There are differences in the way DNOs report health and criticality. More work is required to develop a common approach and we have included a timetable for achieving this in the DNOs' licence for RIIO-ED1.

3.33. After draft determinations we will reconcile DNOs' proposed health, criticality and load indices with our allowed costs.

3.34. The DNOs considered poor on load-indices at fast-track (SPEN and UKPN) have given us better information.

3.35. All DNOs have included proposals to ensure Black Start capability and schemes to protect electricity supplies from flooding. SSEH has proposed several schemes for improving the resilience for customers experiencing worse performance compared to the company average. For slow-track all these proposals have been considered as part of cost assessment.

Social

3.36. DNOs have an important role to play in helping consumers in vulnerable situations. Our Consumer Vulnerability Strategy¹⁹ highlights the need for DNOs to maximise their role in this respect.

3.37. DNOs were required to include a strategy for realising this objective in their business plans. The Stakeholder Engagement element of the BMCS will ensure that the DNOs have an incentive to implement their fully-developed strategy.

3.38. At fast-track, we considered that all DNOs' social proposals were acceptable except for those of SPEN and SSEPD. These DNOs have both made improvements to their slow-track social proposals. SSEPD is now better able to demonstrate that it has comprehensive strategy to address consumer vulnerability in both Scotland and England. SPEN's slow-track business social strategy is also much clearer about how it will deliver benefits to vulnerable consumers. Overall, we now consider that all DNOs' social proposals are acceptable.

¹⁹ <https://www.ofgem.gov.uk/ofgem-publications/75550/consumer-vulnerability-strategy.pdf>

4. Assessment of efficient expenditure

Chapter Summary

How we have assessed the DNOs' expenditures and arrived at the expenditures in our draft determinations. This includes the calibration of the information quality incentive (IQI).

Question 1: Do you agree with our totex benchmarking?

Question 2: Do you agree with our disaggregated benchmarking?

Question 3: Do you agree with our forecast of RPEs?

Question 4: Do you agree with our assessment of potential smart savings?

Question 5: Do you agree with our approach to combining the cost assessment models?

Question 6: Do you agree with our design of the IQI?

4.1. Under the RIIO framework, the onus is on the DNOs to demonstrate that their business plans are cost efficient and give long-term value for money. We expected DNOs to explain in their plans:

- the costs of delivering the outputs and secondary deliverables
- cost projections in the context of historical performance
- proportionate cost benefit analysis and other justification for their expenditure
- the processes and tools they used to determine their efficiency; external benchmarking evidence; evidence of market testing and clear demonstration of consideration of their longer-term cost and output requirements.

4.2. We required the DNOs to provide forecast expenditures and volumes against all four scenarios for future low carbon penetration developed by the Department of Energy and Climate Change (DECC).²⁰ They also had to justify how they determined the scenario on which they based their plans. In the strategy decision we said that we expected the DNOs to demonstrate how they have considered smart grid solutions in their plans. This included the roll-out of successful innovation trials, and the benefits the DNOs would receive from the roll-out of smart meters. Most DNOs have forecast variations on DECC's low scenario. All provided some justification for the choice of scenario but in general there was limited detail. But we think their best view scenarios are sufficiently justified.

4.3. In our fast-track assessment of the DNOs' expenditure we gave feedback on where companies had high volumes or unit costs or where their expenditure was not sufficiently justified through scheme papers or robust CBAs. The slow-track DNOs have revised the cost forecasts in their resubmitted plans and provided additional justification. This includes improved narrative and scheme papers. In total they have

²⁰ DECC has created and updated four scenarios for the potential take-up of low carbon technologies. All scenarios meet the 2030 4th Carbon Budget but involve different relative contributions from the electrification of heat and transport and the use of carbon credits to offset emissions.

reduced their proposed expenditures by more than £700m between their fast-track and slow-track submissions.

4.4. The fast-tracked group, WPD, has not had this opportunity. We committed to using a fast-track company's data in the benchmarking for slow track. However some of WPD's numbers needed more explanation to ensure we were benchmarking like-for-like figures. WPD provided more information without changing any costs.

4.5. As we would expect, most DNOs have targeted meeting or exceeding the efficiency scores of WPD. We have also refined our assessment approach. This means that WPD's DNOs look less efficient in the slow-track assessment. This is a predictable outcome of the fast-track process. We consider the benefits of fast-tracking (better initial business plans, £700m reduction between fast- and slow-track, significantly better data for benchmarking DNOs at slow-track) are significantly greater than any apparent inefficiency of WPD at slow-track.

4.6. At fast-track, we tested the DNOs' business plans against a range of realistic downside cost of equity scenarios. Following our fast-track assessment we issued a decision on the methodology we would use to set the cost of equity allowance. This gave our minded-to position on the cost of equity we would use for slow-track companies. We have therefore not considered cost of equity in our cost assessment at slow-track.

4.7. At fast-track some DNOs proposed tighter targets for customer interruptions and customer minutes lost than our reliability benchmarking methodology had produced. We factored them into our cost assessment. No DNOs proposed tighter targets in their slow-track plans.

Comparative cost assessment

4.8. As at fast-track, we have used a toolkit approach to assess the DNOs' expenditures for slow-track. This makes use of the better information available under RIIO. Our work includes quantitative and qualitative assessment, reviewing DNO narrative and supporting evidence, including historical cost and performance data and company forecasts. We have done both comparative analysis and company-specific assessment.

4.9. Our use of a variety of approaches acknowledges that there is no definitive answer for assessing comparative efficiency. Our use of high-level totex benchmarking internalises trade-offs between different activities, whereas our activity-level analysis allows us to adopt a more tailored approach to different cost areas.

4.10. We have developed our cost assessment techniques since fast-track. Improvements made reflect stakeholder comments on the fast-track assessment, better data available to us at slow-track and refinements in our modelling. We

describe the changes in more detail in the Business plan expenditure assessment supplementary annex.

Totex benchmarking

4.11. We have used two totex regression models to assess efficient expenditure for each of the DNOs. The first totex model assesses efficient costs against a composite scale variable based on DNOs' Modern Equivalent Asset Value (MEAV²¹ or the replacement cost of the networks) and customer numbers. Our second model aggregates cost drivers used in our activity-level analysis.

4.12. In both models we use 13 years of company data (the five years of the current price control, DPCR5, and the eight years of RIIO-ED1) in our slow-track assessment. This is a change from fast-track, and allows us to take into account both the latest DPCR5 information and the scope for efficiencies over the RIIO-ED1 period. There are a number of areas, notably closely associated indirect (CAI)²² costs and business support costs (BSCs), where DNOs are expecting to make large savings in RIIO-ED1.

4.13. At fast-track we were unable to use forecast data in these totex models as there were problems with the forecast cost drivers and the resulting models were not robust enough. As DNOs' forecast costs were lower than the results of our modelling we adjusted the modelled results using a scaling factor so that they were consistent with the total industry forecast. We think that using a longer period of data is better and we have done this for the slow-track assessment.

Disaggregated activity-level analysis

4.14. Our activity-level benchmarking incorporates a mixture of techniques that are appropriate to the activity in question. This includes regression analysis, age-based modelling, ratio analysis, trend analysis and technical assessment by our consultants. We have assessed the efficiency of DNOs' volumes and unit costs.

4.15. We did a detailed qualitative review of both our volume and unit cost assessments. We have been assisted in this by technical and economic consultants. We reviewed a large sample of scheme papers, health and criticality information, CBAs and narrative justification to consider whether higher volumes and/or unit costs are justified. We have adjusted our modelled results to take this into account.

4.16. We refined our activity-level analysis to take account of DNO comments on our fast-track assessment and later work. We describe these in more detail in our Business plan expenditure assessment supplementary annex. In summary we:

²¹ At fast-track we used weighted MEAV. We explain why we have changed the variable in the Business plan expenditure assessment supplementary annex.

²² CAIs are costs that support direct activity on the networks. They include elements such as network design, project management, control & call centres, vehicles/transport and training.

- increased the asset categories in the age-based modelling, estimated asset lives using both historical and forecast replacement volumes, linked refurbishment and replacement, scrutinised a sample of schemes in detail and cross-checked against asset health and criticality
- assessed the justification for particular load-related schemes and the appropriateness of unit costs, including expert review
- benchmarked DNOs' fault rates against their own historical performance, recognising differences across networks
- assessed the majority of BSCs at an aggregate level using ratio benchmarking of costs relative to MEAV on 13 years data, with a separate assessment of IT and telecoms expenditure
- considered the majority of CAIs using regression analysis based on eight years' forecast data and using MEAV and asset additions as the key cost drivers. We used ratio analysis, run rate analysis and bespoke analysis, as appropriate for the remaining areas of CAI.

Real price effects and ongoing efficiencies

4.17. DNOs' allowances are indexed by the Retail Prices Index (RPI) as part of the price control framework. We expect some of the costs faced by DNOs during RIIO-ED1 to change over the period at a different rate than the RPI measure of economy-wide inflation. These differences in cost changes are RPEs. Our cost allowances for DNOs include the forecast impact of RPEs.

4.18. Even the most efficient DNO should make productivity improvements over the price control period, such as by employing new technologies. These improvements are captured by the ongoing efficiency assumption. This assumption represents the potential reduction in input volumes that can be achieved while delivering the same outputs.

RPEs

4.19. To forecast the monetary impact of RPEs we derived an RPE assumption and then multiplied this by each DNO's cost allowance. The RPE assumption is constructed using price indices that represent the types of inputs that DNOs purchase. The RPE assumption uses outturn data for these input price indices and then reverts to the real average historical growth rate of these indices. We also incorporate short-term forecasts for changes in labour costs.²³ The RPEs are set relative to 2012-13 prices to make them consistent with cost allowances. We apply the same RPE assumption to all slow-track DNOs.

4.20. We assessed a wide range of input price indices in coming to our view of the appropriate indices to use, including those used at previous price controls and in

²³ As published by HM Treasury in its monthly 'Forecasts for the UK Economy'.

DNOs' submissions. To combine the different indices, we use a notional weighting between cost areas to prevent DNOs benefiting from an inefficient structure or inflating RPEs for cost areas that represent a large proportion of totex.

4.21. We have updated our RPE assumptions from those at fast-track. This results in an RPE forecast that is significantly less than that of the DNOs. This difference equates to £850m (4.5 per cent) of their requested totex. This is mainly driven by using actual data as a measure of growth for 2012-13 and 2013-14. Some of this data was not available to DNOs at the time of their slow-track submissions. We have also updated the indices we use, taking account of information provided by the DNOs and our decisions for RIIO-T1 and GD1.

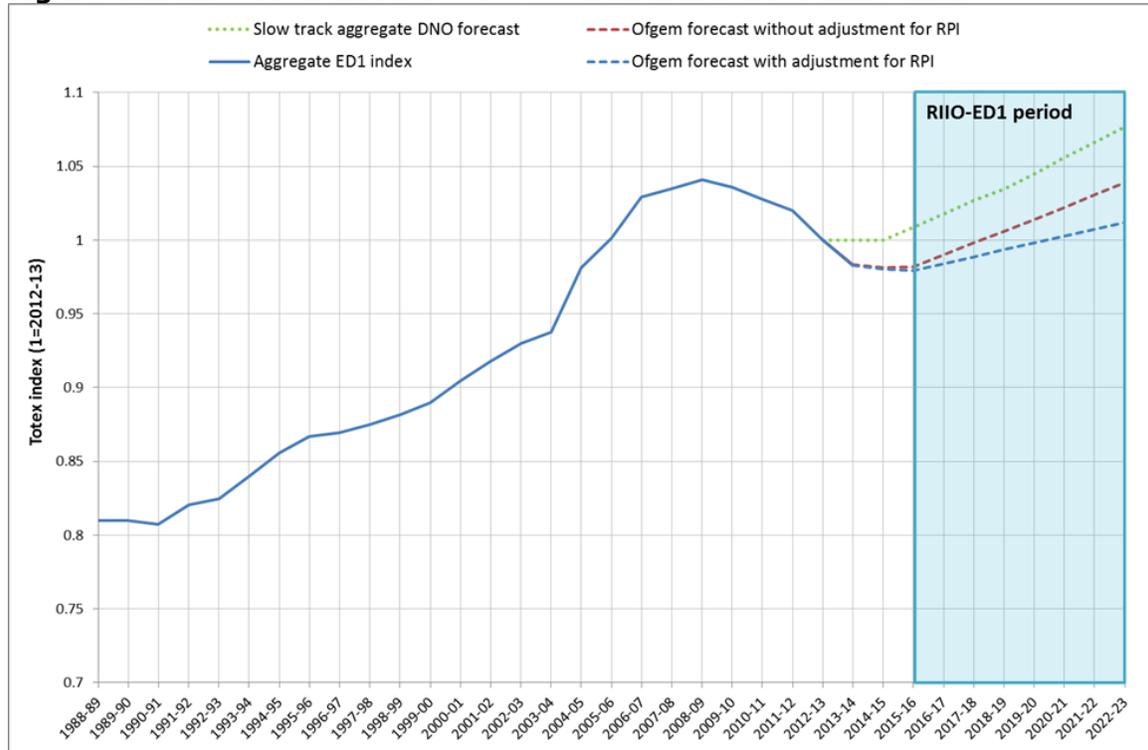
4.22. Finally, we have included an adjustment to take account of the RPI adjustment that we recognised in our fast-track assessment of cost of equity. Price control allowances are uprated by RPI each year. As recognised in our assessment of cost of equity, RPI growth changed relative to underlying cost inflation in the economy.²⁴ If no adjustment is made to RPEs, DNOs receive an additional RPE in the RPI up-rating. We have adjusted for this change, increasing our assessment of outturn RPEs for 2010-11 to 2013-14 by 0.4 per cent per year, and reducing forecast RPEs by 0.4 per cent per year. The impact of this is to slightly increase the value of RPEs for years 2010-11 to 2013-2014 and to reduce the growth in RPEs in forecast years.

4.23. Our analysis indicates that on average, over RIIO-ED1, DNO costs are likely to increase faster than RPI but as costs have fallen in real terms over the past two years, it will take years for prices to return to 2012-13 levels. Most DNO forecasts show a similar profile if updated with the most recent data and adjusted for the step change in RPI.

4.24. We have used an ex ante forecast of RPEs in numerous price controls (including DPCR5, RIIO-T1 and GD1) and think this methodology is robust. Alternative approaches are not straightforward. However, as shown in Figure 4.1 there has been a change in the trajectory of the input price indices in aggregate since 2010-11 and for some indices since 2004-05. This indicates that there may be increased uncertainty in a forecast of RPEs which may cast doubt over the use of an ex ante forecast for an eight-year control. We will consult on whether there is a better way to deal with this uncertainty before final determinations.

²⁴ During 2010 the Office of National Statistics changed the way it collects data for some items that make up the RPI measure of economy-wide inflation. This led to an increase in RPI relative to underlying cost inflation and the de-designation of RPI as a National Statistic. In our 17 February 2014 decision on our equity market return methodology, we identified a need to adjust the cost of equity to account for this step-change in RPI growth. It is consistent to apply an equivalent adjustment to RPEs.

Figure 4.1: Historical and forecast totex RPE index for RIIO-ED1



Ongoing efficiency

4.25. We have assessed each DNO’s assumption for ongoing efficiency over RIIO-ED1. All DNOs have made assumptions that are in line with our view. They have estimated cost savings of between 0.8 and 1.1 per cent per year. We have not adjusted the DNOs’ ongoing efficiency assumptions.

4.26. These ongoing efficiency improvements are in addition to smart grid savings. We asked the DNOs to identify ongoing efficiency and smart grid savings separately to ensure there was no double counting. In assessing additional smart grid savings (see below) we have sought to ensure no double counting with ongoing efficiency.

Smart grid savings

4.27. Smart grid technology and innovative contractual arrangements with consumers and generators will offer DNOs a more cost-effective way of resolving constraints on the network than investing in more assets. They give DNOs more flexibility, especially if they are unsure of longer term demand.

4.28. The Smart Grid Forum (SGF), co-chaired by Ofgem and DECC, has worked to understand what drives the value of smarter solutions and address barriers to adopting them. The Low Carbon Networks Fund (LCNF, part of DPCR5) is funding

innovation trials to assess the potential operation and benefits of smart technologies (including storage) and demand-side response.

4.29. By 2016 consumers will have contributed up to £450m in LCNF and Network Innovation²⁵ funding. In their project justifications DNOs estimated potential savings from the roll-out of their LCNF projects (if all were successful) of around £2bn over the RIIO-ED1 period.

4.30. Smart meters will play an important role in enabling the DNOs to operate and invest in the networks more efficiently. Much of the government's mandated installation of smart meters in domestic and small non-domestic premises will happen well before the end of RIIO-ED1. DNOs need to maximise the benefits they can get from these meters – such as providing better outage and usage data which the DNOs can use to operate the networks in a smarter way. The smart meter roll-out will bring significant benefits directly to consumers as well as cost savings to DNOs. The DNO cost savings should be passed on to consumers who are investing in the roll-out.

4.31. We have drawn on evidence from the DNOs' business plans, the Energy Networks Association assessment of smart metering benefits, the SGF smart grid modelling work, the DECC smart metering impact assessment and expected trends in efficiency gains from innovation. This evidence indicates significant benefits should be achieved over the period by the DNOs using smart grid, and other innovative solutions. This includes the network benefits they can gain from smart meters.

4.32. In this context, we don't consider that the £405m savings from the use of smart grid and smart meter data in the DNOs' business plans is sufficient. We don't believe that any DNO has taken full account of the potential benefits. The evidence indicates that more savings are possible across a range of cost areas. We discuss this below, in relation to the use of smart metering data; avoided/delayed increases in network capacity; and other smart grid benefits. Our figures below are based on industry-wide analysis and reflect potential savings across all 14 DNOs. Having calculated the full industry potential, we then calculated the proportion to be applied to the slow-track DNOs.

4.33. At fast-track, we reviewed the DNOs' strategies for using smart grid during the price control on a qualitative basis. For slow-track we looked in more detail at the savings the DNOs propose to deliver for consumers. While we recognise that some of the DNOs' strategies appear high quality, the test is the level of benefits included in the DNOs' requested allowances.

Smart metering data

4.34. The latest DECC impact assessment for the roll-out of smart meters identifies around £190m of savings accruing to DNOs over the RIIO-ED1 price control period.

²⁵ The DPCR5 LCNF is being replaced in RIIO-ED1 by the Network Innovation Competition and NIA.

This is generally supported by the ENA's 2013 study on network benefits of smart metering. DNOs should have reflected these savings in their plans. The DNOs have only included £27m of savings linked to the smart meter roll-out.

Network capacity

4.35. Much of the savings from using smart grids will be achieved through avoiding or delaying work to increase the capacity of the network (reinforcement). On average the DNOs forecast savings of around 14 per cent of reinforcement cost from the use of smart grids. The best tool currently available to analyse the potential savings is the model²⁶ which DNOs developed under the SGF. This model (as submitted and populated by each DNO) indicates that on average 23 to 25 per cent of reinforcement cost can be avoided at a GB level using smart solutions. On this basis a total of £653m of savings could have been included across all the DNOs' plans. While the frontier DNO in this area (SSEH) includes 20 per cent savings, we believe even it is not making full use of smart grids during RIIO-ED1.

Other smart grids savings

4.36. Most DNOs have not considered benefits of smart grids in cost areas other than reinforcement. Only one DNO (ENWL) has justified savings (of £14.5m) in other areas. Applying ENWL's identified benefits across all DNOs indicates significant possible savings of more than £200m. But we are not convinced that any DNO (including ENWL) has fully considered the benefits of smart solutions across its business. We think much greater savings are achievable.

4.37. We acknowledge that there is uncertainty over these savings and a risk of double counting savings identified elsewhere. We have concluded that DNOs should have included savings in other areas of around £135m in their business plans.

Total savings

4.38. Combining the analysis above, in coming to our view of efficient costs, we propose to apply an average reduction of 2.2 per cent of totex²⁷ to reflect smart grid savings. This is on top of the smart grids savings the DNOs have already included in their plans. It is equivalent to a totex reduction of nearly £400m.²⁸ When we have applied these savings to the individual DNOs we have taken account of the savings they have already included. There may be trade-offs between the different areas of savings considered above. By combining them into a single 'pot' we are allowing DNOs to determine how they achieve these savings.

²⁶ The Transform model. More information can be found in the publications on the SGF web page: <https://www.ofgem.gov.uk/electricity/distribution-networks/forums-seminars-and-working-groups/decc-and-ofgem-smart-grid-forum>.

²⁷ This is prior to IQI interpolation. Our final DNO allowance under the IQI mechanism is based on 75 per cent of the Ofgem view and 25 per cent of the DNO forecast.

²⁸ Prior to IQI interpolation.

4.39. We think there are considerable additional savings to be made during the RIIO-ED1 period as the understanding of smart grid solutions and benefits evolves. DNOs should see an increase in efficiency in comparison to previous price controls as they embed innovation in standard business practices. Extra savings could be at least a 1 per cent of totex, but are less certain than those above and may suffer from double-counting. We have therefore not deducted them from the ex-ante allowances. The DNOs will be encouraged by the efficiency incentive to derive these benefits, which they will then share with consumers. Our incentives encourage DNOs to use innovation, smart metering data and smart solutions to be more effective and efficient in delivering their outputs.

4.40. In our analysis we have considered only those benefits that impact directly on DNOs' costs. Other benefits of smart metering will go directly to consumers. For example, there are significant benefits forecast from reducing losses and handling interruptions more effectively.

4.41. Under our strategy decision, the costs that DNOs incur on IT relating directly to the smart-meter roll-out are refunded at cost. In the DNOs' ex ante allowance we include an estimate of what these costs might be. The DNOs will be allowed to recover the difference between their actual expenditure and the estimate in their allowance, subject to an efficiency review of these expenditures in 2020-21. We have reduced the allowances for DNOs forecasting IT costs above the industry mean to the lowest forecast. This is to encourage the companies to minimise their smart meter IT expenditure as much as possible.

Further issues

4.42. There are a number of DNO-specific issues that we have considered explicitly in our slow-track assessment.

4.43. SPEN has provided a stronger case for an adjustment to reflect the unusual nature of its Manweb network. We have reviewed this with our engineering consultants, and have accepted much of SPEN's improved justification.

4.44. ENWL is a single licensee. All other DNOs are part of a group. At fast-track ENWL submitted a case for the potential size of fixed costs faced by a single DNO. We judged ENWL's business support expenditure as being the least efficient, and decided that single DNO status is not an inherent characteristic. We also noted that ENWL's plan had no protection for its customers if it was bought by another group. We did a sensitivity analysis on the basis of ENWL's view of fixed costs, and it remained above our benchmark of efficient costs.

4.45. For slow-track, ENWL has re-presented the case for a fixed cost adjustment. It has also proposed a licence condition removing this uplift if it is subsequently bought by another DNO group. We have looked at this more closely and think that rather than applying just to ENWL, it is an issue of scale that applies to all DNOs. If we applied a fixed cost scalar to each of the DNO allowances, we would need to change

it if a DNO was subsequently purchased by, or divested from, a DNO group. We do not think that this is right, and so have not included a fixed cost adjustment in our draft determinations.

4.46. In its business plan, UKPN proposes £100m of strategic investment projects in London. We think these projects are justified. Strategic investment is investment made in network assets in anticipation that customers will subsequently request to make use of them. There is a difficult question of who should bear the risk (and cost) of the assets if the connecting customers do not emerge. We stated in our strategy decision that we were open to DNOs submitting a case for strategic investment projects in their business plans if they appropriately shared the risk of stranded assets between themselves, connecting customers and all other customers (DUoS customers). We stated that if a DNO could demonstrate benefits to DUoS customers of a strategic approach, then we would consider allowing DUoS customers to fund up to the level they would have done under an incremental approach. In practice, we said we would expect DNOs to pass some of the cost benefits on to DUoS customers in recognition of the increased risk they are taking. UKPN has demonstrated that the strategic investment projects it proposes are significantly lower cost and less disruptive for all its London customers than incremental approaches.

Combining the cost assessment results

4.47. We have made a number of changes to how we bring our cost modelling together for the slow-track assessment.

4.48. At fast-track we cited limitations in our totex models, and so put less weight on them when combining the model results. The limitations arose from the quality and amount of data.

4.49. At slow-track the DNOs made major improvements to the quality of their business plan data. The totex models now cover the full 13-year period which we consider both takes into account the latest DPCR5 information and better reflects efficiencies over the RIIO-ED1 period. We therefore have more confidence in the totex models and think we should give them greater weight. We are now applying a 25 per cent weighting to each of our totex models and a 50 per cent weighting to our disaggregated activity-based modelling.

4.50. We benchmark the efficient level of totex for each DNO using the upper quartile (UQ) rather than the frontier to allow for other factors that may influence the DNOs' costs. The UQ level of efficiency (lower quartile level of costs) is the 25th percentile in the distribution of efficiency scores. At fast-track we calculated the UQ for each of our three models, and then combined the results. For slow-track we have assessed the UQ after we have combined the results from the three models. This addresses the risk that the combination of three separate upper quartile benchmarks might result in a benchmark that is tougher than any of the DNO forecasts.

4.51. This method works well for areas of costs where there are differences in efficiency across companies and forecasts reveal information about comparative efficiency across the DNOs. It does not cater for instances where we consider all the DNOs to be above our benchmark. This is the case for RPEs and smart grids, as we have described previously. So we have applied the RPE and smart grids adjustments after calculating the UQ. This is consistent with how we implemented the RPE adjustments in RIIO-GD1.

Information Quality Incentive

4.52. As we said in our strategy decision, we use the information quality incentive (IQI) to encourage slow-track DNOs to create business plans that reflect best available information about future efficient expenditure requirements. The IQI provides additional financial motivation for companies to spend the time and resources to produce high-quality and well-justified business plans. It also acts as a financial deterrent against submitting inflated expenditure forecasts.

4.53. There are three elements to the IQI which combine to ensure companies have an incentive to reveal accurate forecasts:

- DNOs receive a financial reward or penalty depending on their forecast relative to our assessment of efficient expenditure
- companies that submit better forecasts receive a higher efficiency incentive rate (sharing factor). This reduces the risk of companies gaming the price control settlement by inflating their forecasts and then significantly underspending
- allowed expenditure is based 75 per cent on our benchmark view and 25 per cent on the company forecasts (called interpolation).²⁹

4.54. In our strategy decision we said that we would publish the IQI matrix as part of our slow-track draft determinations and committed to certain elements of its design. We said that:

- A DNO which submits an expenditure forecast for RIIO-ED1 that matches our assessment of that DNO's efficient expenditure can achieve a return equal to our estimate of its cost of capital, if it then spent the amount it had forecast over the price control period.
- Our intended efficiency incentive rate range for slow-track DNOs would be 45-65 per cent.
- The fast-track DNOs would be plotted on the IQI matrix at slow-track.
- We would set the IQI by ownership group with a single efficiency rate for the group DNOs (to avoid the parent company transferring costs to the DNO with the best incentive rate).

²⁹ This recognises that we do not have perfect information.

4.55. We have reviewed the design of the IQI in light of the cost adjustments we are making after setting the UQ efficiency benchmark (RPEs and smart grid savings). These adjustments mean that no DNOs are achieving our view of efficient costs and that no DNO would receive a reward according to our original design.

4.56. We think the IQI is key to encouraging better information at slow-track. We think that it is right to reward companies that have provided good information that has helped our comparative benchmarking. In light of this we have adjusted the break-even point in the IQI matrix so that the best-performing DNO groups receive a reward. The break-even point is now an IQI score of 102.9 rather than 100. This means that a DNO group that forecasts 2.9 per cent above our efficient cost benchmark and achieve its forecast will earn its cost of capital but no additional reward or penalty.

4.57. We note in paragraph 4.24 that because there may be increased uncertainty in a forecast of RPEs, we will consult on the ex ante methodology before final determinations. If we change our approach, we will look at whether we should revise the IQI calibration to take this into account.

Results

4.58. Tables 4.1 and 4.2 below (by DNO and by group) show our cost adjustments from comparative benchmarking, RPEs and smart grid savings and compare our view of efficient costs with the fast-track and slow-track submissions. The figures in these tables are shown before the application of the IQI interpolation.

Table 4.1: Results of our cost assessment by DNO (2012-13 prices)

DNO Group	DNO	Fast-track submitted totex	Slow-track submitted totex*	(a) Result without RPEs or smart grids		(b) RPE adjustments		(c) Smart grid adjustments		Ofgem view of efficient totex**
		(£m)	(£m)	(£m)	% delta to slow-track submitted	(£m)	% delta to slow-track submitted	(£m)	% delta to slow-track submitted	(£m)
ENWL	ENWL	1,900	1,877	16	0.8%	90	-4.8%	-36.23	-1.9%	1,766
NPg	NPGN	1,365	1,362	- 54	-4.0%	68	-5.0%	-36.93	-2.7%	1,203
	NPgY	1,859	1,810	- 29	-1.6%	93	-5.1%	-44.42	-2.5%	1,643
UKPN	LPN	1,968	1,961	- 182	-9.3%	85	-4.4%	-15.94	-0.8%	1,678
	SPN	1,897	1,859	- 92	-5.0%	83	-4.5%	-23.14	-1.2%	1,661
	EPN	2,861	2,765	- 132	-4.8%	123	-4.5%	-48.94	-1.8%	2,461
SPEN	SPD	1,740	1,564	57	3.6%	75	-4.8%	-41.51	-2.7%	1,504
	SPMW	2,220	1,927	- 178	-9.2%	95	-4.9%	-47.45	-2.5%	1,607
SSEPD	SSEH	1,230	1,210	- 78	-6.4%	45	-3.7%	-28.93	-2.4%	1,059
	SSES	2,490	2,425	0	0.0%	93	-3.8%	-72.71	-3.0%	2,260
TOTAL		19,531	18,760	- 672	-3.6%	850	-4.5%	-396.18	-2.1%	16,841

*NPg included an additional £61m in its slow-track plan for costs associated with Network Rail's electrification programme. We are proposing an uncertainty mechanism for these costs for all slow-track DNOs. So we have not included this amount in our assessment.

**Ofgem's view of efficient totex in these tables is prior to IQI interpolation. Our final DNO allowance under the IQI mechanism is based on 75 per cent of the Ofgem view and 25 per cent of the DNO forecast.

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Table 4.2: Results of our cost assessment by group (2012-13 prices)

DNO Group	Fast-track submitted totex	Slow-track submitted totex*	(a) Result without RPEs or smart grids		(b) RPE adjustments		(c) Smart grid adjustments		Ofgem view of efficient totex**
	(£m)	(£m)	(£m)	% delta to slow-track submitted	(£m)	% delta to slow-track submitted	(£m)	% delta to slow-track submitted	
ENWL	1,900	1,877	16	0.8%	- 90	-4.8%	-36.23	-1.9%	1,766
NPG	3,224	3,172	- 83	-2.6%	- 161	-5.1%	-81.35	-2.6%	2,846
UKPN	6,726	6,584	- 406	-6.2%	- 292	-4.4%	-88.02	-1.3%	5,799
SPEN	3,960	3,491	- 121	-3.5%	- 170	-4.9%	-88.95	-2.5%	3,111
SSEPD	3,720	3,635	- 78	-2.1%	- 137	-3.8%	-101.64	-2.8%	3,319
TOTAL	19,531	18,760	- 672	-3.6%	- 850	-4.5%	-396.18	-2.1%	16,841

*NPg included an additional £61m in its slow-track plan for costs associated with Network Rail's electrification programme. We are proposing an uncertainty mechanism for these costs for all slow-track DNOs. So we have not included this amount in our assessment.

**Ofgem's view of efficient totex in these tables is prior to IQI interpolation. Our final DNO allowance under the IQI mechanism is based on 75 per cent of the Ofgem view and 25 per cent of the DNO forecast.

4.59. Tables 4.3 and 4.4 below detail our view of efficient expenditure and our final expenditure allowances after the application of the IQI on an annualised basis. They compare the annual average spend in DPCR5 to the submitted costs at fast-track and slow-track, and our proposed allowed RIIO-ED1 totex.

Table 4.3: Final expenditure allowances by DNO (annual average)

DNO Group	DNO	DPCR5 totex (4 years to date) (£m)	DPCR5 totex (5 years) (£m)	Fast-track submitted totex (£m)	Slow-track submitted totex* (£m)	Ofgem view of efficient totex** (£m)	Slow-track totex in draft determinations (£m)***	% reduction to slow-track submitted
ENWL	ENWL	240	244	237	235	221	224	-4%
NPg	NPGN	160	163	171	170	150	155	-9%
	NPgY	210	221	232	226	205	211	-7%
UKPN	LPN	209	220	246	245	210	219	-11%
	SPN	226	228	237	232	208	214	-8%
	EPN	340	344	358	346	308	317	-8%
SPEN	SPD	194	198	218	195	188	190	-3%
	SPMW	227	239	278	241	201	211	-12%
SSEPD	SSEH	123	125	154	151	132	137	-9%
	SSES	271	283	311	303	283	288	-5%
Total		2,201	2,265	2,441	2,345	2,105	2,165	-8%

Table 4.4: Final expenditure allowances by DNO group (annual average)

DNO Group	DPCR5 totex (4 years to date) (£m)	DPCR5 totex (5 years) (£m)	Fast-track submitted totex (£m)	Slow-track submitted totex* (£m)	Ofgem view of efficient totex** (£m)	Slow-track totex in draft determinations (£m)***	% reduction to slow-track submitted
ENWL	240	244	237	235	221	224	-4%
NPg	370	385	403	397	356	366	-8%
UKPN	775	792	841	823	725	749	-9%
SPEN	421	436	495	436	389	401	-8%
SSEPD	394	408	465	454	415	425	-7%
Total	2,201	2,265	2,441	2,345	2,105	2,165	-8%

4.60. Table 4.5 below shows the IQI for each slow-track DNO group.

Table 4.5: IQI results for the DNO groups

DNO Group	Slow-track submitted totex* (£m)	Ofgem view of efficient totex** (£m)	IQI efficiency score	Slow-track totex in draft determinations *** (£m)	Efficiency incentive rate %	Ex ante reward/penalty % totex (£m)
ENWL	1,877	1,766	106%	1,794	57%	0.7% 13
NPG	3,172	2,846	111%	2,928	54%	-0.2% -5
UKPN	6,584	5,799	114%	5,995	53%	-0.6% -32
SPEN	3,491	3,111	112%	3,206	54%	-0.3% -10
SSEPD	3,635	3,319	110%	3,398	55%	0.2% 5

*NPg included an additional £61m in its slow-track plan for costs associated with Network Rail's electrification programme. We are proposing an uncertainty mechanism for these costs for all slow-track DNOs. So we have not included this amount in our assessment.

**Ofgem's view of efficient totex in these tables is prior to IQI interpolation. Our final DNO allowance under the IQI mechanism is based on 75 per cent of the Ofgem view and 25 per cent of the DNO forecast.

***The slow-track totex in draft determinations is after the IQI interpolation. It is based on 75 per cent of the Ofgem view and 25 per cent of the DNO forecast.

5. Assessment of efficient finance

Chapter Summary

How we have assessed the financial components of the DNOs' plans, and how we have tested the financeability of our proposals. Our proposed changes to three components of financial policy.

Question 1: Do you agree with our cost of equity proposals?

Question 2: Do you agree with our cost of debt proposals?

Question 3: What are your views on our assessment of financeability?

Question 4: Do you agree with our proposals to modify the three financial policies?

5.1. We summarise the financial components of the DNOs' slow-track plans in Table 5.1 below.

Table 5.1: Summary of slow-track DNO business plan financial proposals

	ENWL	NPg	UKPN	SPEN	SSEPD	DPCR5
Return on equity						
fast-track	6.8%	6.7%	6.7%	6.7%	6.7%	6.7%
slow-track	6.3%	6.7%	6.0%	6.4%	6.4%	
Return on debt						
fast-track	Accepted Ofgem 10 yr rolling index					3.6%
slow-track	15-20 yr index	Rejects Ofgem index	Accept Ofgem index but highlight material issues	Accepts Ofgem index		
Notional gearing						
fast-track	65%	65%	65%	65%	65%	65%
slow-track	65%	65%	65%	65%	65%	
Accept 45-year asset lives?						
fast-track	Yes	Yes	Yes	Yes	Yes	
slow-track	Yes	Yes	Yes	Yes	Yes	
Asset lives transition?						
fast-track	8 yrs	8 yrs	8 yrs	Immediate	8 yrs	
slow-track	8 yrs	8 yrs	8 yrs	8 yrs	8 yrs	
Totex capitalisation						
fast-track	72%	NPgN:70%; NPgY:72%	70%	80%	70%	~72%
slow-track	72%	NPgN:70%; NPgY:72%	68%	80%	70%	

Cost of equity

5.2. In our 17 February 2014 decision on our equity market return methodology,³⁰ we revised our central reference cost of equity estimate in our assessment of business plans to 6.0 per cent. This was 0.3 per cent below our previous estimate. We said we were minded to apply this cost of equity estimate at slow-track.

5.3. Our November 2013 proposal to fast-track WPD was subject to the outcome of our equity market return consultation. We had assessed plans in the round against a benchmark cost of equity allowance of 6.3 per cent. WPD's cost of equity of 6.7 per cent was more than offset by other elements of its plan. Following our equity market return decision, WPD reduced its estimate by 0.3 per cent, to 6.4 per cent. Against the revised benchmark of 6.0 per cent, taking WPD's business plans in the round, we concluded that they still represented value for money with an allowance for cost of equity of 6.4 per cent.

5.4. Our cost of equity estimate was informed by the provisional determination for Northern Ireland Electricity Limited (NIE) published by the Competition Commission (CC) in November 2013. The CC issued its final determination in March 2014.³¹ Its cost of equity estimate for NIE was 5.0 per cent, at the top end of its range of 3.4 to 5.0 per cent.

5.5. Using the CC's analysis, we translated its estimated range for NIE's cost of equity to the DNOs. This gave a range of 4.0 to 6.0 per cent. Our 6.0 per cent estimate for the DNOs is at the top of that range.

5.6. Some of DNOs argued that it is not appropriate to take one component of the CC's assessment of the Weighted Average Cost of Capital (WACC) for NIE in isolation. They note the CC made allowance for NIE's full cost of embedded debt.

5.7. As we describe below, we propose to modify our cost of debt index. In our analysis, we have looked at how our proposed index provides for the DNOs' forecast cost of debt. We considered both the cost of embedded debt and the cost of new debt under a range of future interest rate scenarios. Our analysis indicates that this modified approach significantly reduces the sector's exposure to market interest rate uncertainty. This protection is not available to NIE under the CC's ex ante cost of debt allowance approach.

5.8. We noted in our 17 February decision that our cost of equity estimate would have been lower were it not for our assessment that some DNOs would see a divergence between their actual interest costs and their cost of debt allowances if interest rates remained low. We explain in our cost of debt discussion below that our modified cost of debt index both addresses this divergence and provides DNO

³⁰ <https://www.ofgem.gov.uk/ofgem-publications/86366/decisiononequitymarketreturnmethodology.pdf>

³¹ Published by the Competition and Markets Authority in April 2014: https://assets.digital.cabinet-office.gov.uk/media/535a5768ed915d0fdb000003/NIE_Final_determination.pdf

investors with an enhanced financial risk profile. These two factors mean there is headroom in our cost of equity estimate.

Cost of debt

5.9. In our strategy decision we specified the same cost of debt index that we are using for most companies in RIIO-T1 and GD1. This is based on a 10-year trailing average of bond market indicators. But we said in the strategy decision that we would adopt different approaches if they were both robust and justified in light of DNOs' exceptional circumstances.

5.10. Several DNOs presented evidence in their slow-track business plans, and subsequently, that the 10-year trailing average index is forecast to under-recover their forecast interest costs. Our analysis confirms this evidence and concludes that, taking all DNOs together, the 10-year trailing average index does not meet the criteria we used for RIIO-T1 and GD1. In particular, we tried to ensure that introducing an index made the forecast interest costs of a typical network operator and its cost of debt allowances broadly equivalent.

5.11. In light of our further analysis of the DNOs' interest costs, we are consulting on a modified index which extends from a 10-year to a 20-year trailing average. This means the averaging period will start on 1 November 2004 and end on 31 October 2014 for 2015-16 (10 years) and will increase by a year each year, trombone-like, until it reaches the length of 20 years. This means that for 2025-26 the averaging period will start on 1 November 2004 and end on 31 October 2024 (20 years).

5.12. In developing this proposal, we considered a number of possible specifications for the index. We tested these specifications by comparing forecast levels for the resulting index with DNOs' forecast interest costs, taking in to account both their embedded debt and the new debt that would be needed. DNOs will use new debt to fund investment and to refinance embedded debt on maturity. We also looked at a range of future interest rate scenarios.

5.13. Our testing showed that trombone-like mechanisms would protect DNOs from exposure to market interest rate uncertainty. However, we found that trailing average periods starting at 15 years, as proposed by ENWL, would significantly over-remunerate DNOs' forecast interest costs across the sector. We found a 10 to 20-year specification provided effective protection from market interest rate uncertainty and closely matched remuneration to interest costs across the sector.

5.14. The redefined index does not impact our allowances for the first year of RIIO-ED1 since it starts with a 10-year trailing average. Subsequent years will have progressively longer trailing average periods.

5.15. While the proposed index provides a close match to the interest costs forecast for the DNOs as a whole, we recognise it is not a perfect match and we anticipate a

small under-provision. This is offset by additional headroom in our cost of equity estimate, as discussed above.

5.16. We do not propose to offer the new index to WPD. While we have committed to adjust its settlement if it is materially worse off (in the round) by being fast-tracked, we do not think this is the case here.

DNOs with higher than average debt costs

5.17. The redefined cost of debt index provides much better protection against market interest rate uncertainty for all DNOs. However, some DNOs have significantly higher than average embedded interest costs, while for others they are much lower. Some DNOs argue that they should be given higher cost of debt allowances. They have relatively high cost debt which was issued a long time ago, but they consider that it was efficient at the time.

5.18. We believe it is important to remunerate debt costs on a benchmarked basis since it ensures DNOs have strong incentives to manage their debt efficiently. Under RIIO, we have adopted an index-based benchmark but in previous reviews we also set cost of debt allowances for the sector as a whole in the light of similar benchmark information. Investors should have taken this into account in their valuation at the time of any transaction involving a DNO.

5.19. If we gave a DNO with higher than average debt costs additional remuneration, we should give less remuneration to a DNO with lower than average debt costs. But this would undermine our incentive objectives and risk burdening consumers with higher overall debt costs since DNOs would have little incentive to minimise their interest costs. If we compensated high-cost DNOs without penalising low-cost DNOs, consumers would have to pay more than the sector's overall cost of debt. We cannot justify either of these options.

5.20. However, our statutory duties require us to have regard to the need to secure that DNOs are able to finance their regulated activities. We recognise that a DNO with higher than average embedded debt costs may find that its ability to finance its activities is impaired. We consider this in the next section.

Financeability

Financeability assessment

5.21. We believe our draft determination proposals provide the basis for all DNOs to finance their activities during the course of RIIO-ED1.

5.22. As in previous reviews, we have analysed the financial positions of the DNOs using a range of financial indicators. We generally assume that a DNO will be

financeable if it can maintain an investment grade credit rating and we test to see whether our decisions will make it unduly difficult for a DNO to do this.

5.23. The DNOs' licence regime protects consumers, lenders and bondholders. Among other protections, licences require DNOs to take all appropriate steps within their power to maintain an investment grade rating. We will enforce these protections if necessary. They do not guarantee financeability, but they do guard against imprudent financing decisions or inappropriate distributions to DNO shareholders.

5.24. We set price controls so that a prudently-financed licensee is reasonably resilient to adverse outcomes. This approach, combined with the protections built into DNO licences, limit the risk of fundamental financeability problems. They help ensure that any company-specific issues can be corrected by the DNO and create a safe environment for debt finance providers.

5.25. We have considered financial resilience using both notional debt and forecast actual debt. We refer to the methodologies adopted by the credit rating agencies for regulated energy networks. These methodologies place weight on accounts-based financial indicators, but they consider a range of other factors too.

5.26. For all DNOs, our projections indicate conventional accounts-based financial indicators that are positive, well above levels that would threaten investment grade status. Across almost all DNOs, however, the post-maintenance interest cover ratio, PMICR,³² is at levels consistent with credit ratings below investment grade. A number of DNOs highlight this as a concern and ENWL, in particular, maintains that persistently low PMICR indicators would threaten its future financeability.

5.27. Both Moody's and Fitch state that they place more weight on the PMICR than other financial indicators. Nevertheless, this one indicator by itself does not dominate their assessment. Moody's, for example, gives a 15 per cent weighting to the indicator in its current rating methodology. Our simulations of Moody's methodology show that reduced levels of PMICR, other things being equal, would be consistent with lower credit ratings than DNOs currently enjoy. However, these simulations suggest no more than a one notch downgrade for any DNO.

5.28. While relatively low PMICR levels point to the potential for rating downgrades, there will be counterbalancing factors in the rating agencies' assessments. Although we do not assume rating agencies will give any weight to these factors, we believe they are relevant to our financeability assessment.

5.29. Our modified cost of debt index substantially reduces the DNOs' exposure to market interest rate uncertainty. Our analysis indicates it reduces DNOs' exposure by

³² Otherwise known as the adjusted interest cover ratio, an indicator on which Moody's and Fitch place particular weight.

almost 10 times compared to either the 10-year cost of debt index or an ex ante cost of debt allowance. It directly reduces the financial risk the DNOs face.

5.30. We extended our testing to include DNOs' embedded debt issues. We tested individual DNOs under a wide range of future market interest rate scenarios and we used an additional tool³³ to test the underlying resilience of DNOs' capital structures to plausible downside scenarios. We explain our testing in more detail in our Financial issues supplementary annex.

5.31. To inform our testing, we considered the ranges of uncertainty in DNOs' returns on regulatory equity (RoRE). We used RoRE analysis in previous reviews. We think plausible RoRE outcomes are wide enough to ensure full engagement of equity investors,³⁴ but not so wide as to threaten financial stability. The best performing DNOs have the opportunity to earn double-digit rewards.

5.32. Figure 5.1 shows the ranges that we see as plausible.

5.33. There is some judgement involved in assessing how plausible the extremes of these ranges are (to be at the bottom, a DNO would have to underperform on all incentives). We consider that resilience to sustained RoRE underperformance of 4 per cent per annum is an appropriate benchmark.

5.34. Our analysis showed that the resilience of one DNO, ENWL, does not fully meet this benchmark. Its embedded debt costs are particularly high. Like many of the other DNOs, its PMICR is projected to remain below target levels for investment grade. While this is not a barrier to investment grade, our measure of financial resilience for ENWL is lower than we consider desirable.

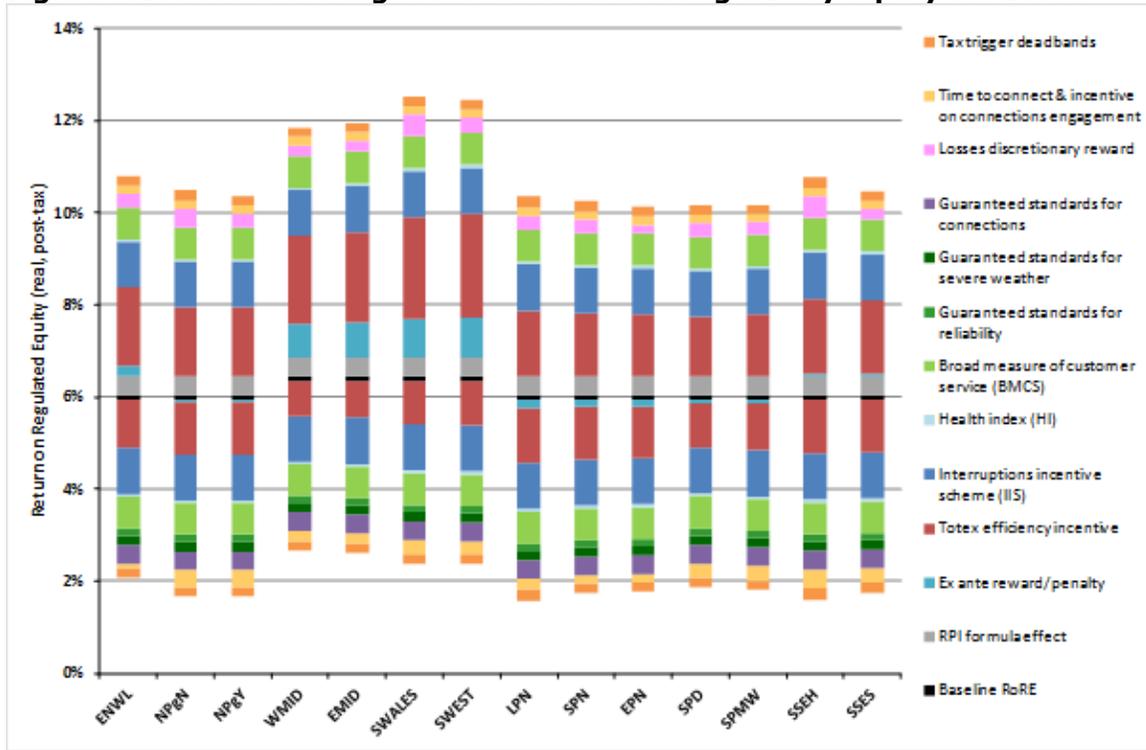
5.35. ENWL could improve its financial resilience in a variety of ways. It is improved if it avoids substantial underperformance, if it could reduce its debt burden or reduce its requirement for equity funding of net investment.

5.36. We invite ENWL to consider a range of options for improving its financial resilience with a view to proposing a plan to us. If we conclude it is in the interest of consumers, we would be prepared to make a present value neutral adjustment to the company's settlement.

³³ We explain this measure, which we call PMICR_G in the Financial issues supplementary annex.

³⁴ Who have a primary role in corporate governance, and have the power to help achieve our objectives for the consumer interest.

Figure 5.1: Plausible ranges for the return of regulatory equity for DNOs³⁵



Revenue profiling

5.37. While we calculate the revenues the DNOs require over RIIO-ED1 from our view of expenditures, we recognise the need for some smoothing of the revenue profile over the period. This avoids undue volatility in energy bills for consumers and facilitates financeability for DNOs. As stated in Chapter 7 we are fixing the DNOs’ base revenues for 2015-16 based on draft determinations. This means that DNOs do not have an opportunity to revise their profiles before the 2015-16 revenues are fixed. We asked all DNOs to specify appropriate revenue profiles in a way that we could apply them to our draft determination revenues. The profiles supplied are reasonable, so we applied them.

Proposed policy changes

5.38. We are consulting on three changes we propose to make to specific financial policies we described in our strategy decision.

³⁵ The incentives are explained in our strategy decision, and referenced in Chapter 3. The chart also includes the increase in annual RPI relative to underlying cost inflation we highlighted in our 17 February decision. This would be reflected in higher RAV indexation.

Directly remunerated services

5.39. Historically, we have treated a number of DNO services as outside the regulatory control for distribution use of system revenues. These are known as excluded, or directly remunerated services. DNOs are allowed to earn a reasonable margin on some of these, ie contestable services. Others, such as top up and standby services, DNOs are expected to recover at cost.

5.40. The DPCR5 treatment for top-up and standby assumes the costs (and charges) arise when the customer requiring the service places their order. However, this has proven not to be the case.

5.41. Some DNOs have included charges for top-up and standby within their regulatory revenue control, while other DNOs have, as allowed by the licence, classified these revenues as excluded services. Since the costs associated with these services cannot generally be distinguished from the costs of the distribution network, they would have been taken into account in full in our determination of DPCR5 allowed revenues. Treating associated revenues as excluded services without adjustment would therefore imply a double recovery of costs.

5.42. The DNOs affected recognise the need for an adjustment. We propose to deduct 100 per cent of top-up and standby revenues that have been treated as excluded services from DNOs' Regulatory Asset Value (RAV) balances. We have made these deductions in our calculation of opening RAV balances for draft determinations.

5.43. It is in consumers' long term interests to make these adjustments through the RAV, reducing the asset base on which cost of capital allowances are calculated.

5.44. For RIIO-ED1, we propose to amend DNOs' licences to specify that top-up and standby charges are only directly remunerated if they relate to an agreement for the recharge of direct expenditure. All other expenditure that might be attributable to top-up and standby will be in general totex and funded through allowed revenues. Most top-up and standby income will therefore be in DNOs' allowed revenues.

Capital allowance pools

5.45. We said in our strategy decision that we would attribute qualifying expenditure to capital allowance pools on a generic basis to ensure a consistent approach to allowed expenditure across all licensees. This is what we did at DPCR5. Our DPCR5 approach also involved the trueing up of balances in our regulatory tax pool calculations at the end of each control period.

5.46. After further analysis, we believe we can align incentives better. We propose to roll forward regulatory tax pool calculations at the end of the RIIO-ED1 period.

This will ensure consumers enjoy the benefit of tax relief on all expenditure they have funded.

5.47. We also propose to use DNO-specific attributions of qualifying expenditure to capital allowance pools, which have been subject to our review. Any methodology for calculating generic tax pool allocations would have zero revenue impact overall but would risk creating arbitrary winners and losers between DNOs.

Disposals

5.48. In our strategy decision we said that disposal proceeds 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.

5.49. We have reviewed the incentive characteristics of this approach. We have concluded that, consistent with our approach for RIIO-GD1, it is in the consumer interest to ensure there are incentives on DNOs to optimise their expenditure programmes as a whole, taking additions and disposals together. We propose to treat the proceeds or fair value of asset disposals as deductions from totex for the calculation of the efficiency incentive.

5.50. The DNOs' licences contain safeguards to help ensure asset disposals do not have material adverse impacts on future network development. We will enhance our consent regime to require DNOs to demonstrate that material disposals will not have detrimental longer term effects on network development or efficiency.

6. Uncertainty and risk

Chapter Summary

Further information on how we have assessed the uncertainty and risk criterion. Also the additional uncertainty mechanisms we have included in draft determinations.

Question 1: Do you agree with our acceptance of the DNO specific uncertainty mechanisms?

Question 2: Do you agree with our proposal to give all DNOs an uncertainty mechanism for rail electrification?

6.1. There are always uncertainties about what will happen during the course of a price control period. Factors can change a company's outputs and expenditure requirements. Under RIIO, risks should be borne by the party best able to manage them efficiently. In some cases this will be the network company. In other cases it may be the consumer.

6.2. In our strategy decision we presented a range of mechanisms (uncertainty mechanisms) which allow changes to the revenues the DNOs are allowed to collect in response to specified uncertainties. These include:

- RPI indexation of allowed revenues and the index for the cost of debt
- A volume driver related to smart meter roll-out costs where DNO involvement is necessary.
- Direct pass through of certain costs outside the DNOs' control (such as business rates and Ofgem licence fees).
- Re-openers where the company can apply for qualifying costs to be funded when they are more than a specified amounts. Examples are where load related expenditure is significantly different from forecast, or for the roll-out of proven innovation.

6.3. In their business plans DNOs had to consider the uncertainty and risk they may face over the RIIO-ED1 period, and present their proposals for managing it. This could include proposing additional uncertainty mechanisms if DNOs thought they would help manage risk and bring benefits for consumers.

6.4. In their fast-track business plans, the majority of the DNOs agreed with the uncertainty mechanisms in our strategy decision. SSEPD has now withdrawn the additional mechanisms it proposed at fast-track which we said would have given it significant cost protection at the customers' expense.

6.5. At fast-track we agreed with new mechanisms proposed by SSEPD and ENWL. They have retained them in their slow-track plans.

6.6. ENWL's proposed re-opener mechanism is for the reinforcement costs they might face depending on which option National Grid chooses in order to connect Moorside nuclear power station. ENWL provides a clear justification for this mechanism, including options considered, and we agree that it provides an appropriate balance of risk between ENWL and the customer.

6.7. One of SSEPD's additional mechanisms is for the costs of diverting lines associated with Network Rail's electrification programme. As we explained at fast-track, the DNOs met government and Network Rail and discussions have raised questions about who will bear these costs. From a public policy perspective, we think these costs should not be borne by energy consumers, but should be recovered from rail customers. Who will eventually fund these costs is uncertain. In addition, some parts of Network Rail's electrification programme are more certain than others. We think (as we said at fast-track) that SSEPD's proposed uncertainty mechanism is an appropriate solution. The mechanism would allow SSEPD to submit qualifying costs (above a materiality threshold) to us in 2019. We would then decide if the costs should be included in the allowed revenues. We propose to apply this mechanism to all the slow-track DNOs.³⁶

6.8. We do not judge the DNOs' choice of best view low carbon scenario but assess how well they justify their choice. They have developed their forecasts in many different ways. All have engaged with stakeholders. But the plans generally lack detailed evidence for the forecast low carbon technology volumes. SPEN has lowered its forecast since fast-track. UKPN has reallocated 440MW of secondary network connected photovoltaics from its SPN network to its EPN network.

6.9. We thought most DNOs' descriptions of residual risk were lacking at fast-track, but that this was not significant enough to change the scoring. They have not changed at slow-track. We scored SPEN down in this area at fast-track and it has improved its proposals to an acceptable level.

6.10. All DNOs describe how they will accommodate increases in low carbon technology penetration beyond their 'best view' forecast. However, not all DNOs consider the impact of different scenarios on their wider business or in the same level of detail. SPEN and SSEPD have improved this aspect of their plans, although we recommend that they consider this area of uncertainty in greater detail to ensure they are in a position to manage it effectively and efficiently.

³⁶ At fast-track, WPD included the costs of Network Rail's rail electrification in its ex ante allowance. We judged that the costs it included were efficient, and that there is a high degree of certainty around the particular schemes involved. Due to the uncertainty over who should pay, we amended WPD's licence so that if another party funds the costs they will be removed from WPD's settlement.

7. Decision on 2015-16 opening base revenue allowances

Chapter Summary

The opening base revenue allowances for 2015-16 for the slow-track DNOs. This is based on our draft determinations.

Introduction

7.1. On 19 December 2013 we decided that we would fix slow-track DNOs' opening base revenue allowances³⁷ for 2015-16 at draft determinations.³⁸ The 2015-16 opening base revenue allowances for the fast-tracked DNOs owned by WPD were fixed at fast-track final determinations, which we published in February 2014.

7.2. This decision was in response to suppliers' concerns that according to the RIIO-ED1 timetable DNOs' revenues would not be confirmed for 2015-16 until the publication of final determinations in November 2014. Suppliers felt that an earlier notification would help them more accurately price resulting network charges into the contracts that they offer electricity consumers.

7.3. We also decided that any deferred revenue from 2015-16, arising from differences between the draft and final determinations, would be recovered over the remaining years of RIIO-ED1. This revenue deferral could be either positive or negative, ie revenue could go up or down between draft and final determinations. We stated that we would ensure the impact of deferring revenue is net present value neutral by uplifting it by the WACC.

7.4. This decision only affects the timing of our decision on opening base revenue allowances for 2015-16 and not any other aspect of the RIIO-ED1 timetable. It does not change the DNO settlements arising from the RIIO-ED1 review.

2015-16 opening base revenue allowances - decision

7.5. Each slow-track DNO's opening base revenue allowance (the PU term in the licence) for 2015-16 is shown in Table 7.1.

³⁷ DNOs recover revenue through network charges to suppliers. Suppliers may pass this charge on to their customers as part of the electricity bill.

³⁸ For more information on this decision see: <https://www.ofgem.gov.uk/publications-and-updates/timing-decision-electricity-distribution-networks%E2%80%99-revenue-2015-16>.

Table 7.1: Values for the PU term (£m, 2012-13 prices) by DNO

Licensee	2015/16
ENWL	373.0
NPgN	249.1
NPgY	323.6
LPN	366.9
SPN	322.1
EPN	496.6
SPD	338.3
SPMW	304.6
SSEH	246.4
SSES	473.7

7.6. We will publish our final determinations for the slow-track companies in November 2014. We will modify the profile of base revenues in a present value neutral way to recover any deferred revenue from 2015-16 arising from differences between the draft and final determinations over the remaining years of RIIO-ED1.

8. Next steps

- 8.1. The consultation on these draft determinations closes on 26 September 2014.
- 8.2. We will publish final determinations for slow-track DNOs in November 2014.
- 8.3. We have been working with the DNOs to create the licence conditions for RIIO-ED1. We will issue an informal consultation on the conditions in September 2014, and plan to issue the licences for the slow-track DNOs in December 2014.
- 8.4. The forward timetable for RIIO-ED1 is in Figure 8.1 below

Figure 8.1: RIIO-ED1 high-level timetable

2014	July	Publish slow-track draft determinations (8 weeks consultation)
	September	Consult on slow-track informal draft licence conditions
	November	Publish slow-track final determinations
	December	Publish statutory consultation (28 days) on licence modifications
2015	April	1 st – start of new price control (RIIO-ED1)

Appendices

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Appendix 1 - Consultation response and questions

1.1. We would like to hear your views on any of the proposals in this document.

1.2. We especially welcome responses to the specific questions which we have asked at the beginning of each chapter. We have repeated the questions below.

1.3. Send your responses by **26 September 2014** to:

- Anna Rossington
- RIIO-ED1
- Ofgem
- 9 Millbank, London, SW1P 3GE
- 020 7901 7401
- RIIO.ED1@ofgem.gov.uk

1.4. We will publish all responses on our website, www.ofgem.gov.uk, and add them to our library unless they are marked confidential. You can request that your response is kept confidential and we will respect this, subject to any obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

1.5. If you want your response to be kept confidential, please clearly mark the document/s to that effect and include the reasons for confidentiality. Put any confidential material in the appendices to your responses.

1.6. Next steps: Having considered the responses to this consultation, we will publish our final determinations for the slow-track DNOs in November 2014. Please direct any questions to Anna Rossington using the contact details above.

CHAPTER: Two

Question1: Do you think our assessments for each of the five criteria are appropriate?

CHAPTER: Four

Question1: Do you agree with our totex benchmarking?

Question2: Do you agree with our disaggregated benchmarking?

Question3: Do you agree with our forecast of RPEs?

Question4: Do you agree with our assessment of potential smart savings?

Question5: Do you agree with our approach to combining the cost assessment models?

Question6: Do you agree with our design of the IQI?

CHAPTER: Five

Question1: Do you agree with our cost of equity proposals?

Question2: Do you agree with our cost of debt proposals?

Question3: What are your views on our assessment of financeability?

Question4: Do you agree with our proposals to modify the three financial policies?

CHAPTER: Five

Question1: Do you agree with our acceptance of the DNO specific uncertainty mechanisms?

Question2: Do you agree with our proposal to give all DNOs an uncertainty mechanism for rail electrification?

Appendix 2 – Summary of responses to revised business plans

1.1. Following submission of the revised business plans, we published an open letter inviting views at the end of March 2014.³⁹ We also held a Price Control Review Forum (PCRF) at which the DNOs presented their key revisions, giving stakeholders the opportunity to challenge and give their views.⁴⁰

1.2. We received 17 non-confidential responses which we have published on our website. Over half were from groups that had an interest in a specific policy area, or network area. Five were from organisations involved in national parks, referring to proposals on the undergrounding of wires. Four were from organisations in Anglesey, referring to development plans in that area. Three responses focused on the DNOs' plans for assisting the fuel poor and other social obligations.

1.3. In addition we had two responses from suppliers and responses from Citizens Advice, a union and WPD.

1.4. This appendix is a summary of the responses, to see the responses in full please refer our website.

1.5. British Gas feels the resubmitted plans fail to adequately justify the level of allowances being sought. Particular highlights are:

- the fast-track decision for WPD was for its plan as a package, elements of its plan should not be read across to other DNOs
- we should adopt a cost of equity below (or at worst at) its central reference point of 6.0 per cent
- transitional relief for the increase in asset lives to 45 years should only be provided if fully justified and only to the minimum extent necessary
- far more challenging cost efficiency targets should be set – especially since we will allow costs to rise in line with inflation
- historically DNOs have outperformed output targets, which should therefore be more robust and reflect customer funding and value
- it disagrees with aspects of our RIIO-ED1 policy, such as the target setting for the interruptions incentive scheme, our treatment of WPD's rail electrification schemes, the treatment of transmission connection point charges, and the treatment of excluded services.

³⁹ <https://www.ofgem.gov.uk/ofgem-publications/86977/riioed1bpublicationseekingviews.pdf>

⁴⁰ Notes of the proceedings can be found here: <https://www.ofgem.gov.uk/publications-and-updates/price-control-review-forum-%E2%80%93-23-april-2014-summary-proceedings>

1.6. In response to their points we note we have previously consulted on reliability target setting, and have discussed it further with British Gas. We believe our treatment of rail electrification was robust for WPD, but do not propose to apply the same treatment at slow-track. We have assessed an efficient level of transmission connection point charges. We agree with British Gas on the treatment of excluded services, and are consulting in this document on changing our approach.

1.7. Citizens Advice notes that the DNOs appear to present a good picture for consumers. However it wonders whether this is an accurate picture of the outcomes RIIO-ED1 will deliver. It questions:

- how the DNOs were able to cut costs and cost of equity without changing their outputs
- if the price profile as favourable to consumers in nominal terms? (consumers don't understand real)
- if the RIIO-ED1 reduction in allowed revenue is due to real efficiency gains or just the longer asset lives
- whether the revised plans been meaningfully consulted with stakeholders, and whether stakeholders can judge value for money considering the length and complexity of the business plans.
- how DNOs can justify such different costs of equity
- how will Europe affect the plans (ie the Energy Efficiency directive)

1.8. It also thinks there needs to be more transparency over the real level of costs consumers are likely to face over RIIO-ED1, including the potential impact of incentives. It would like probabilities on the range of returns and a simple summary of financial rewards available to each DNO.

1.9. EDF and British Gas echoed Citizen's Advice's desire for clearer information for stakeholders on the cost implications of settlements.

1.10. EDF notes that consumer affordability is particularly important. Therefore the overall package of incentives should be appropriate and network companies should not be over-rewarded.

1.11. The stakeholders in Anglesey support SPEN's planned network capacity increases on the island.

1.12. The responses on undergrounding focussed on individual DNO plans for undergrounding in national parks and areas of outstanding natural beauty.

1.13. The union response focussed on Northern Powergrid's plan, which it supports.

1.14. The organisations with a primary focus on social issues support the new social obligations on DNOs in relation to RIIO-ED1 and the key role DNOs will play in

identifying and delivering solutions to fuel poor and vulnerable consumers, including but not limited to customers on the Priority Services Register (PSR).

1.15. They see these obligations as an innovative way to reduce electricity loads and network reinforcement, alongside creating permanent demand reductions in fuel poor households. They would like to see more detail from the DNOs on how they plan to do this.

1.16. Finally, WPD identified some factual inaccuracies in one of the revised plans, when presenting a comparison to WPD's fast-track settlement. These points have since been countered by the relevant DNO. WPD also provided thoughts on cost assessment for slow-track.

Appendix 3 – Draft determinations for ENWL

1.17. We summarise key elements of our draft determinations for ENWL in Table 3.1 below. Figures are shown (unless indicated otherwise) as RIIO-ED1 totals and are real in 2012-13 prices.

1.18. We provide further detail in the Detailed figures by company supplementary annex. It contains the outputs targets that each DNO will be required to achieve for customer service, connections⁴¹ and reliability and the financial rewards or penalties they will receive depending on their performance. These values are not stated below.

Table 3.1: Key elements of ENWL’s draft determinations

Base revenue	£2,797m
Profiling ⁴²	Year 1: -20.06% followed by -1.12% pa
Impact on the distribution charges included in domestic bills ⁴²	Year 1: -£20.47 followed by around -£0.90 pa
Outputs	
Safety	Compliance with the safety legislation enforced by the HSE
Customer service	<u>Target:</u> ENWL accepts our customer service targets. In order to perform well under this incentive it will need to deliver a level of service to all customers that is well above the current industry average and will compare favourably against other industries where similar metrics are used. <u>Incentive:</u> We will assess ENWL’s performance using a customer satisfaction survey, a complaints metric and an assessment on the quality of stakeholder engagement.
Connections	<u>Target:</u> ENWL accepts our Time to Connect

⁴¹ We published the methodologies for setting the customer service and connections targets here: <https://www.ofgem.gov.uk/publications-and-updates/decision-consultation-riio-ed1-customer-service-and-connection-incentives>.

⁴² This does not include the impact of the government’s December 2013 measures to reduce energy bills.

	<p>incentive targets (for smaller connection customers) and our approach to assessing its responsiveness to larger connections customers through the Incentive on Connections Engagement. <u>Incentive:</u> ENWL’s performance will be assessed against the time it takes to issue quotes/make new connections and an assessment on the quality of its engagement with connection customers.</p>
<p>Environment</p>	<p><i>Losses</i> ENWL forecasts an 11 GWh annual reduction in losses by 2021. It will primarily achieve this by accelerating the replacement of pre-1970 transformers. We have allowed this volume of transformer replacement in the cost assessment benchmarking as it was appropriately justified in the context of losses. We have also allowed ENWL’s expenditure on electricity theft reduction initiatives as it was appropriately justified. ENWL should update the supporting analysis for its losses strategy when further information on minimum standards becomes available and should clearly link the narrative to the analysis.</p> <p><i>Other environment</i> ENWL has a good track record on environmental delivery, eg a 35% reduction in its BCF in DCPR5. However, it could be more ambitious in its BCF and SF₆ targets for RIIO-ED1 (10% reduction for BCF by 2020 and reducing its SF₆ leakage rare to 0.3% by leak detection and asset replacement). Its costs and volumes for SF₆ mitigation are embedded in asset replacement making its target and benefits for SF₆ difficult to assess. Therefore we have not specifically allowed for the costs and volumes for its SF₆ mitigation in the cost assessment benchmarking. ENWL intends to underground approximately 80km of lines in designated areas, spending its entire £9m allowance. There is evidence of best practice in its approach to stakeholder engagement, delivery and prioritisation for undergrounding and its ongoing commitment to a 30-year plan to phase out FFCs. On the basis of good justification we have allowed the majority of its costs for specific environment activities in the cost benchmarking.</p>
<p>Reliability</p>	<p><u>Target:</u> ENWL accepts the reliability target setting methodology described in our strategy decision. <u>Incentive:</u> ENWL will be subject to the incentive rate setting methodology we described in the strategy decision. ENWL’s plan is generally strong across all aspects</p>

RIIO-ED1: Draft determinations for the slow-track electricity distribution companies
Overview

	of reliability, in particular load modelling and asset health management.
Social	ENWL's strategy for addressing social obligations is consistent with our strategy decision and it intends to align its work with the British Standard for vulnerability. It commits to using data better to understand who is connected to its network and how it can best serve customer needs. It has removed a specific commitment to spend £1m annually to provide support for vulnerable consumers. It states that instead it wants to concentrate on delivering outputs for consumers. It provides assurance that stakeholders support these changes. We consider that the focus on outputs, rather than financial expenditure, is appropriate and consistent with the RIIO approach to regulation.
Expenditure	
Total expenditure (base totex)	£1,794m
Financial parameters	
Allowed return on equity (real post-tax)	6.0%
Allowed return on debt (real pre-tax)	Indexed using trailing average of 10 years in 2015/16; increasing by 1 year each year to 20 years in 2025/26.
Notional gearing	65%
Depreciation	Straight line: 20 years on existing assets; eight year transition to 45 years depreciation profile for new assets.
Totex capitalisation rate	72%
Efficiency incentive rate ⁴³	57%
Ex ante reward/penalty	£13m
Uncertainty mechanisms	
ENWL's uncertainty mechanisms are listed below. It accepted the mechanisms in the strategy decision but also proposed an additional mechanism. This is for the costs it might face depending on National Grid's chosen option to connect Moorside nuclear power station. We agree with this proposal. We have also given all DNOs an additional mechanism for costs arising from Network Rail's electrification programme.	
Indexation	RPI indexation of allowed revenues Cost of debt
Pass-through	Business rates Ofgem licence fees DCC ⁴⁴ fixed costs
Volume-driver	Smart meter roll-out costs

⁴³ This is the share of any efficient under or overspend retained or borne by the DNO.

⁴⁴ Smart meter Data Communications Company (DCC) fixed costs are costs/fees that will be charged to the DNOs for use of the DCC services.



RIIO-ED1: Draft determinations for the slow-track electricity distribution companies
Overview

Re-openers	Street works Enhanced physical site security High-value projects Load related expenditure Innovation roll-out mechanism Pension deficit repair mechanism Moorside Rail electrification
Trigger	Tax

Appendix 4 – Draft determinations for NPg

1.19. We summarise key elements of our draft determinations for NPg in Table 4.1 below. Figures are shown (unless indicated otherwise) as RIIO-ED1 totals and are real in 2012-13 prices.

1.20. We provide further detail in the Detailed figures by company supplementary annex. It contains the outputs targets that each DNO will be required to achieve for customer service, connections and reliability and the financial rewards or penalties they will receive depending on their performance. These values are not stated below.

Table 4.1: Key elements of NPg’s draft determinations

	NPgN	NPgY
Base revenue	£1,993m	£2,589m
Profiling ⁴⁵	Year 1: -18.20% then flat	Year 1: -12.08% then flat
Impact on the distribution charges included in domestic bills ⁴⁵	Year 1: -£18.31 then flat	Year 1: -£9.98 then flat
Outputs		
Safety	Compliance with the safety legislation enforced by the HSE.	
Customer service	<p><u>Target:</u> NPg accepts our customer service targets. This means that in order to perform well under this incentive it will need to deliver a level of service to all customers that is well above the current industry average and will compare favourably against other industries where similar metrics are used.</p> <p><u>Incentive:</u> We will assess NPg’s performance using a customer satisfaction survey, a complaints metric and an assessment on the quality of stakeholder engagement.</p>	
Connections	<p><u>Target:</u> NPg accepts our Time to Connect targets (for smaller connection customers) and our approach to assessing its responsiveness to larger connections customers through the Incentive on Connections Engagement.</p> <p><u>Incentive:</u> NPg’s performance will be assessed against the time it takes to issue quotes/make new connections and an assessment on the quality of its engagement with connection customers.</p>	
Environment	<i>Losses</i>	

⁴⁵ This does not include the impact of the government’s December 2013 measures to reduce energy bills.

	<p>NPg has not identified any losses reduction expenditure or quantified benefits in its losses reduction strategy. However, it has forecast significant loss-reduction benefits from the roll-out of smart meters, as detailed in the smart metering annex of its business plan. We expect it to include these benefits in its updated losses strategy. As part of its routine cable replacement, NPg has committed to installing oversized cables in excess of the minimum required standards, for the primary purpose of loss-reduction. We have allowed the costs associated with this oversizing in the cost assessment benchmarking, where NPg has clearly indicated it is driven primarily by loss-reduction and has provided CBAs with a positive NPV. We expect NPg to include this initiative in its updated losses strategy.</p> <p><i>Other environment</i></p> <p>NPg's BCF strategy demonstrates best practice in reporting and monitoring of emissions from its contractors. Its RIIO-ED1 BCF target represents a reduced ambition compared to DPCR5 (10% reduction during RIIO-ED1 compared to 5% year on year in DPCR5). It intends to spend its entire £13.9m allowance undergrounding around 100km in designated areas. Like other DNOs, its plan lacks transparency on costs for activities which are embedded in other costs, eg FFC and SF₆ mitigation. So we have not specifically allowed for the costs and volumes of these activities in the cost assessment benchmarking. However due to good justifications we have allowed the majority of costs and volumes directly for environmental activities, in the benchmarking. NPg demonstrates best practice in its BCF contractor strategy and steps taken to improve transparency and accuracy on its SF₆ inventory, which informs its RIIO-ED1 target of not more than 112kg of SF₆ lost per year by 2023.</p>
Reliability	<p><u>Target:</u> NPg accepts the reliability target setting methodology described in our strategy decision. It argues that it has greater risk than the fast-tracked group, WPD, since its historical under-performance on reliability means that it starts RIIO-ED1 behind its target. We do not view this as a risk issue as it merely reflects NPg's historical performance.</p> <p><u>Incentive:</u> NPg will be subject to the incentive rate setting methodology we described in the strategy decision.</p> <p>NPg is forecasting some deterioration in asset health during RIIO-ED1, but states that its</p>

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	interventions will be more efficient. It provides plans to improve resilience.	
Social	NPg has a comprehensive strategy to address its social obligations. It recognises the important role that it can play in helping to address a range of social issues and commits to collaborating with relevant agencies to improve the service for vulnerable customers.	
Expenditure		
	NPgN	NPgY
Total expenditure (base totex)	£1,243m	£1,685m
Financial parameters		
Allowed return on equity (real post-tax)	6.0%	
Allowed return on debt (real pre-tax)	Indexed using trailing average of 10 years in 2015/16; increasing by 1 year each year to 20 years in 2025/26.	
Notional gearing	65%	
Depreciation	Straight line: 20 years on existing assets; eight year transition to 45 years depreciation profile for new assets.	
Totex capitalisation rate	NPgN: 70% NPgY: 72%	
Efficiency incentive rate	54%	
Ex ante reward/penalty	-£5m	
Uncertainty mechanisms		
NPg's uncertainty mechanisms are listed below. It accepted the mechanisms in the strategy decision. We have also given all DNOs an additional mechanism for costs arising from Network Rail's electrification programme.		
Indexation	RPI indexation of allowed revenues Cost of debt	
Pass-through	Business rates Ofgem licence fees DCC fixed costs	
Volume-driver	Smart meter roll-out costs	
Re-openers	Street works Enhanced physical site security High-value projects Load related expenditure Innovation roll-out mechanism Pension deficit repair mechanism Rail electrification	
Trigger	Tax	

Appendix 5 – Draft determinations for UKPN

1.21. We summarise key elements of our draft determinations for UKPN in Table 5.1 below. Figures are shown (unless indicated otherwise) as RIIO-ED1 totals and are real in 2012-13 prices.

1.22. We provide further detail in the Detailed figures by company supplementary annex. It contains the outputs targets that each DNO will be required to achieve for customer service, connections and reliability and the financial rewards or penalties they will receive depending on their performance. These values are not stated below.

Table 5.1: Key elements of UKPN’s draft determinations

	LPN	SPN	EPN
Base revenue	£3,124m	£2,736m	£4,104m
Profiling ⁴⁶	Year 1: -15.41% followed by +1.75%pa	Year 1: -13.39% followed by +2.02%pa	Year 1: -5.65% followed by +1.13%pa
Impact on the distribution charges included in domestic bills ⁴⁶	Year 1: -£11.63 followed by around +£1.17 pa	Year 1: -£12.01 followed by around +£1.67 pa	Year 1: -£4.32 followed by around +£0.84 pa
Outputs			
Safety	Compliance with the safety legislation enforced by the HSE.		
Customer service	<p><u>Target:</u> UKPN accepts our customer service targets. This means that in order to perform well under this incentive it will need to deliver a level of service to all customers that is well above the current industry average and will compare favourably against other industries where similar metrics are used.</p> <p><u>Incentive:</u> We will assess UKPN’s performance using a customer satisfaction survey, a complaints metric and an assessment on the quality of stakeholder engagement.</p>		
Connections	<p><u>Target:</u> UKPN accepts our Time to Connect incentive targets (for smaller connection customers) and our approach to assessing its</p>		

⁴⁶ This does not include the impact of the government’s December 2013 measures to reduce energy bills.

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	<p>responsiveness to larger connections customers through the Incentive on Connections Engagement. <u>Incentive:</u> UKPN’s performance will be assessed against the time it takes to issue quotes/make new connections and an assessment on the quality of its engagement with connection customers.</p>
Environment	<p><i>Losses</i> UKPN has not identified any additional expenditure primarily driven by losses reduction benefits so we have not adjusted any of its costs or volumes in our cost assessment benchmarking because of losses. However, it has estimated a 229 GWh reduction in losses over RIIO-ED1 from an ‘opportunistic’ strategy, where it assesses losses reduction based on other network investment drivers or in selecting asset specifications in network design. This includes oversizing cables to reduce losses, but UKPN attributes no additional cost. We are particularly disappointed with UKPN’s low estimate of losses reduction benefits from smart metering and it should refine its estimate of these benefits accordingly.</p> <p><i>Other environment</i> UKPN demonstrates ambition by building on previous performance and good practice in some of its environmental activities. For instance, its leakage targets for FFC (supported by cost-benefit analysis), and plans for undergrounding are stretching but founded on good progress in DPCR5. Its targets for these are to underground 176km of lines in designated areas using its total £20.2m allowance and to reduce FFC leakage by 2% per annum in RIIO-ED1. This includes 37 specific FFC projects (supported by CBAs). It demonstrates good practice on tracking and monitoring of its contractors’ BCF impacts and commits to a 2% reduction in BCF per annum. Other commitments, eg SF₆ mitigation, still lack clarity (it commits to minimising impact through exceeding international standard leakage rates) and so actual savings are less certain. Due to good justifications we have allowed the majority of its environmental costs and volumes in the benchmarking.</p>
Reliability	<p><u>Target:</u> UKPN accepts the reliability target setting methodology described in our strategy decision. <u>Incentive:</u> UKPN will be subject to the incentive rate setting methodology we described in the strategy decision. Both LPN and SPN have relatively poor load indices in their plans, with EPN somewhat better. SPN and</p>

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	EPN have stronger health indices than LPN.		
Social	UKPN provides detailed information on how it will improve the service provided to PSR customers. It commits to developing partnerships during RIIO-ED1 to deliver positive outcomes for vulnerable customers.		
Expenditure			
	LPN	SPN	EPN
Total expenditure (base totex)	£1,749m	£1,710m	£2,537m
Financial parameters			
Allowed return on equity (real post-tax)	6.0%		
Allowed return on debt (real pre-tax)	Indexed using trailing average of 10 years in 2015/16; increasing by 1 year each year to 20 years in 2025/26.		
Notional gearing	65%		
Depreciation	Straight line: 20 years on existing assets; eight year transition to 45 years depreciation profile for new assets.		
Totex capitalisation rate	68%		
Efficiency incentive rate	53%		
Ex ante reward/penalty	-£32m		
Uncertainty mechanisms			
UKPN's uncertainty mechanisms are listed below. It accepted the mechanisms in the strategy decision. We have also given all DNOs an additional mechanism for costs arising from Network Rail's electrification programme.			
Indexation	RPI indexation of allowed revenues Cost of debt		
Pass-through	Business rates Ofgem licence fees DCC fixed costs		
Volume-driver	Smart meter roll-out costs		
Re-openers	Street works Enhanced physical site security High-value projects Load related expenditure Innovation roll-out mechanism Pension deficit repair mechanism Rail electrification		
Trigger	Tax		

Appendix 6 – Draft determinations for SPEN

1.23. We summarise key elements of our draft determinations for SPEN in Table 6.1 below. Figures are shown (unless indicated otherwise) as RIIO-ED1 totals and are real in 2012-13 prices.

1.24. We provide further detail in the Detailed figures by company supplementary annex. It contains the outputs targets that each DNO will be required to achieve for customer service, connections and reliability and the financial rewards or penalties they will receive depending on their performance. These values are not stated below.

Table 6.1: Key elements of SPEN’s draft determinations

	SPD	SPMW
Base revenue	£2,707m	£2,437m
Profiling ⁴⁷	Year 1: +5.14% then flat	Year 1: -26.20% then flat
Impact on the distribution charges included in domestic bills ⁴⁷	Year 1: +£4.23 then flat	Year 1: -£34.80 then flat
Outputs		
Safety	Compliance with the safety legislation enforced by the HSE.	
Customer service	<p><u>Target:</u> SPEN accepts our customer service targets. This means that in order to perform well under this incentive it will need to deliver a level of service to all customers that is well above the current industry average and will compare favourably against other industries where similar metrics are used.</p> <p><u>Incentive:</u> We will assess SPEN’s performance using a customer satisfaction survey, a complaints metric and an assessment on the quality of stakeholder engagement.</p>	
Connections	<p><u>Target:</u> SPEN accepts our Time to Connect incentive targets (for smaller connection customers) and our approach to assessing its responsiveness to larger connections customers through the Incentive on Connections Engagement.</p> <p><u>Incentive:</u> SPEN’s performance will be assessed against the time it takes to issue quotes/make new connections and an assessment on the quality of</p>	

⁴⁷ This does not include the impact of the government’s December 2013 measures to reduce energy bills.

	its engagement with connection customers.
Environment	<p><i>Losses</i> SPEN's losses reduction strategy represents a significant improvement compared with that provided at fast-track. It forecasts a 163 GWh reduction in losses over RIIO-ED1 with losses reduction-driven expenditure focussed on accelerated replacement of pre-1962 transformers. We have allowed this volume of transformer replacement in the cost assessment benchmarking as it was appropriately justified. Since the rest of its transformer replacement is part of routine activities and will either not incur additional costs or not exceed Ecodesign 2015 standards we have not separately assessed these costs in the benchmarking. SPEN's revised losses strategy should relate more clearly to the supporting analysis.</p> <p><i>Other environment</i> At fast-track we commented on SPEN's lack of clarity and justification with respect to the benefits of its environmental targets. We found its business plan in some cases was not clear on its targets and did not demonstrate sufficient commitment to stakeholder engagement and delivery for undergrounding. At slow-track, its resubmission has largely improved on all the concerns we raised. SPEN provides clarity and justification of its environmental targets and some indication of stakeholder engagement and prioritisation for visual amenity projects. It clarifies that it intends to spend its full RIIO-ED1 allowance of £12.2m to underground 85km of lines in designated areas. It notably shifts from its parent company BCF target, to its own (lower) target of 15 per cent reduction through various actions. This represents one of the most ambitious targets across the DNOs. SPEN includes more evidence of benefits around mitigation of SF₆ and FFC. It supports its FFC target of 50% reduction with additional justification. It has also provided clarity on what its SF₆ target means, ie through procurement of lower leakage equipment it forecasts a reduction of 658t CO₂ per annum. However, there is limited evidence whether the volumes for FFC reported in its data templates or the proposed targets for BCF and SF₆ are achievable, given its limited track record. On the basis of good justification we have allowed the majority of its costs for specific environment activities in the cost benchmarking.</p>

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Reliability	<p>Target: SPEN accepts the reliability target setting methodology described in our strategy decision.</p> <p>Incentive: SPEN will be subject to the incentive rate setting methodology we described in the strategy decision.</p> <p>SPEN has submitted better developed criticality indices than it did at fast-track, but has not provided health or criticality information for low voltage assets. It was the only DNO to submit health and criticality indices for civil assets and is stronger in this area than in relation to its load indices.</p>	
Social	<p>While some aspects of SPEN's fast-track social proposals were good, overall we considered that its strategy was not as clear or comprehensive as we expected. As part of its slow-track business plan, SPEN has added a new Social Obligations Strategy document. In this document SPEN provides more information about how it will improve services to vulnerable consumers. We consider that SPEN's slow-track social proposals are clearer and better structured. The slow-track business plan is more specific about how SPEN will provide support to vulnerable customers. Overall, we consider that SPEN's slow-track social outputs are acceptable.</p>	
Expenditure		
	SPD	SPMW
Total expenditure (base totex)	£1,519m	£1,687m
Financial parameters		
Allowed return on equity (real post-tax)	6.0%	
Allowed return on debt (real pre-tax)	Indexed using trailing average of 10 years in 2015/16; increasing by 1 year each year to 20 years in 2025/26.	
Notional gearing	65%	
Depreciation	Straight line: 20 years on existing assets; eight year transition to 45 years depreciation profile for new assets.	
Totex capitalisation rate	80%	
Efficiency incentive rate	54%	
Ex ante reward/penalty	-£10m	
Uncertainty mechanisms		
<p>SPEN's uncertainty mechanisms are listed below. It accepted the mechanisms in the strategy decision. We have also given all DNOs an additional mechanism for costs arising from Network Rail's electrification programme. We will also give SPEN SSEPD's proposed change to extend the existing street works mechanism if new legislation is passed in Scotland.</p>		
Indexation	RPI indexation of allowed revenues Cost of debt	



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Pass-through	Business rates Ofgem licence fees DCC fixed costs
Volume-driver	Smart meter roll-out costs
Re-openers	Street works Enhanced physical site security High-value projects Load related expenditure Innovation roll-out mechanism Pension deficit repair mechanism Rail electrification
Trigger	Tax

Appendix 7 – Draft determinations for SSEPD

1.25. We summarise key elements of our draft determinations for SSEPD in Table 7.1 below. Figures are shown (unless indicated otherwise) as RIIO-ED1 totals and are real in 2012-13 prices.

1.26. We provide further detail in the Detailed figures by company supplementary annex. It contains the outputs targets that each DNO will be required to achieve for customer service, connections and reliability and the financial rewards or penalties they will receive depending on their performance. These values are not stated below.

Table 7.1: Key elements of SSEPD's draft determinations

	SSEH	SSES
Base revenue	£1,971m	£3,790m
Profiling ⁴⁸	Year 1: -18.19% then flat	Year 1: -17.99% then flat
Impact on the distribution charges included in domestic bills ⁴⁸	Year 1: -£26.95 then flat	Year 1: -£17.84 then flat
Outputs		
Safety	Compliance with the safety legislation enforced by the HSE.	
Customer service	<p><u>Target:</u> SSEPD accepts our customer service targets. This means that in order to perform well under this incentive it will need to deliver a level of service to all customers that is well above the current industry average and will compare favourably against other industries where similar metrics are used.</p> <p><u>Incentive:</u> We will assess SSEPD's performance using a customer satisfaction survey, a complaints metric and an assessment on the quality of stakeholder engagement.</p>	
Connections	<p><u>Target:</u> SSEPD accepts our Time to Connect incentive targets (for smaller connection customers) and our approach to assessing its responsiveness to larger connections customers through the Incentive on Connections Engagement.</p> <p><u>Incentive:</u> SSEPD's performance will be assessed against the time it takes to issue quotes/make new connections and an assessment on the quality of</p>	

⁴⁸ This does not include the impact of the government's December 2013 measures to reduce energy bills.

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	its engagement with connection customers.
Environment	<p><i>Losses</i> SSEPD has provided more supporting analysis of its losses reduction approach than it did at fast-track. However, it has not provided a coherent losses strategy and its narrative is not clearly supported by robust analysis. It forecasts a losses reduction of 739 GWh over RIIO-ED1. This appears to be overestimated in comparison with the reductions forecast by other DNOs proposing similar measures. It has identified relatively low expenditure on losses reduction-driven activity. Its expenditures are primarily for cable replacement, for which we have not adjusted cost assessment benchmarking as SSEPD has not provided a robust supporting CBA.</p> <p>As part of its routine asset replacement, SSEPD has committed to install transformers that exceed the minimum Ecodesign 2015 standards. We have allowed the costs associated with the increased specification of these transformers as they have been appropriately justified.</p> <p><i>Other environment</i> SSEPD continues to demonstrate a focus on stakeholder engagement for visual amenity and well-detailed (and now justified) benefits for its BCF target. Its BCF target, a 15% reduction over RIIO-ED1, is broken down into a set of individual targets by category. It targets reducing its rate of SF₆ leakage by 15% through asset maintenance and commits to specific replacement projects to reduce FFCs. Its target for FFC is a 15% reduction for RIIO-ED1 relative to 2012-13 through these specific replacement projects. Its costs appear high (with limited rationale) for these FFC activities and therefore we have adjusted them in the cost assessment. In addition, there is some inconsistency between costs or actions and projected savings for SF₆ and FFC. SSEPD intends to underground 90km of lines using its full allowance of £15.1m. With no track record for undergrounding, there is limited justification for whether this target is deliverable; compared to other DNOs its target is ambitious. Due to fair justification, we have allowed some of its environmental costs in the cost benchmarking.</p>
Reliability	<p><u>Target:</u> SSEPD accepts the reliability target setting methodology described in our strategy decision.</p> <p><u>Incentive:</u> SSEPD will be subject to the incentive rate setting methodology we described in the</p>

	strategy decision. For slow-track SSEPD has included criticality indices, which were missing at fast-track. SSES's load indices were stronger than SSEH's.	
Social	<p>We were not convinced that SSEPD's fast-track business plan had a comprehensive strategy to address consumer vulnerability in both Scotland and England.</p> <p>In its slow-track business plan SSEPD provides a new "Strategy for Customer Vulnerability". It commits to ensuring equal access to services for all consumers and improving the information that it holds on customers. Its slow-track social proposals also provide a more balanced approach across its SSEH and SSES regions.</p> <p>Overall, we consider that SSEPD's slow-track social proposals are acceptable.</p>	
Expenditure		
	SSEH	SSES
Total expenditure (base totex).	£1,097m	£2,301m
Financial parameters		
Allowed return on equity (real post-tax)	6.0%	
Allowed return on debt (real pre-tax)	Indexed using trailing average of 10 years in 2015/16; increasing by 1 year each year to 20 years in 2025/26.	
Notional gearing	65%	
Depreciation	Straight line: 20 years on existing assets; eight year transition to 45 years depreciation profile for new assets.	
Totex capitalisation rate	70%	
Efficiency incentive rate	55%	
Ex ante reward/penalty	£5m	
Uncertainty mechanisms		
	SSEPD's uncertainty mechanisms are listed below. It accepted the mechanisms in the strategy decision but also proposed three additional mechanisms. These are (a) a time-limited continuation of the current mechanism (part allowance, part pass-through) for the costs of supplying power in Shetland (b) to extend the existing street works mechanism if new legislation is passed in Scotland (c) a mechanism for costs arising from Network Rail's electrification programme. We agree with these mechanisms.	
Indexation	RPI indexation of allowed revenues Cost of debt	
Pass-through	Business rates Ofgem licence fees DCC fixed costs Shetland (hybrid mechanism)	
Volume-driver	Smart meter roll-out costs	



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Re-openers	Street works Enhanced physical site security High-value projects Load related expenditure Innovation roll-out mechanism Pension deficit repair mechanism Rail electrification
Trigger	Tax

Appendix 8 – DPCR5 performance

1.27. In this appendix we present data on the DNOs' performance against outputs in the current price control (DPCR5). We have updated some of the information from that presented alongside the fast-track assessment. However the DNOs do not submit their performance data for 2013-14 until 31 July 2014. Therefore some of the data we present has not been finalised.

1.28. We will include the financial performance of the DNOs over the first four years of DPCR5 as part of our final determinations.

Reliability

Table A8.1: Customer interruptions (CIs), by DNO, over the DPCR5 period to date

	2010/11		2011/12		2012/13		2013/14	
	Target	Performance	Target	Performance	Target	Performance	Target	Performance
ENWL	52.90	47.80	52.70	45.88	52.50	46.55	52.40	43.09
NPGN	68.30	65.19	68.20	67.87	68.20	64.87	68.10	66.26
NPGY	75.30	69.88	75.30	69.25	75.30	72.24	75.30	67.79
WMID	109.90	102.20	109.90	73.70	109.90	81.40	109.90	75.80
EMID	75.70	61.70	75.70	52.90	75.70	48.10	75.70	49.70
SWALES	79.50	58.39	79.50	56.04	79.50	48.39	79.50	49.38
SWEST	73.60	61.45	73.60	53.88	73.60	60.31	73.60	52.89
LPN	33.40	24.43	33.40	27.62	33.40	25.04	33.40	21.61
SPN	85.00	76.91	84.20	53.27	83.30	54.94	82.50	55.46
EPN	76.10	85.95	75.90	63.21	75.70	56.70	75.50	59.40
SPD	60.10	50.70	60.10	52.55	60.10	51.61	60.10	53.13
SPMW	45.60	39.30	45.50	35.96	45.30	34.10	45.10	40.73
SSEH	77.00	73.98	77.00	70.12	77.00	68.12	77.00	74.79
SSES	73.80	63.57	73.20	69.76	72.60	61.81	72.00	68.80

Figure A8.1: Total interruptions longer than 12/18hrs for DPCR5 to date

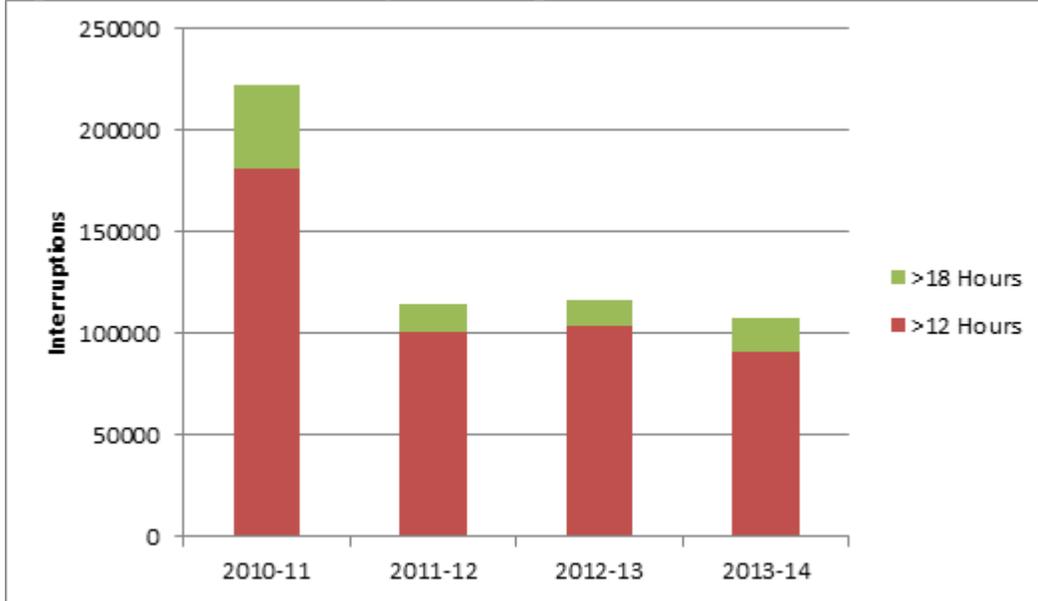


Figure A8.2: Interruptions longer than 12/18hrs for year 2013/14

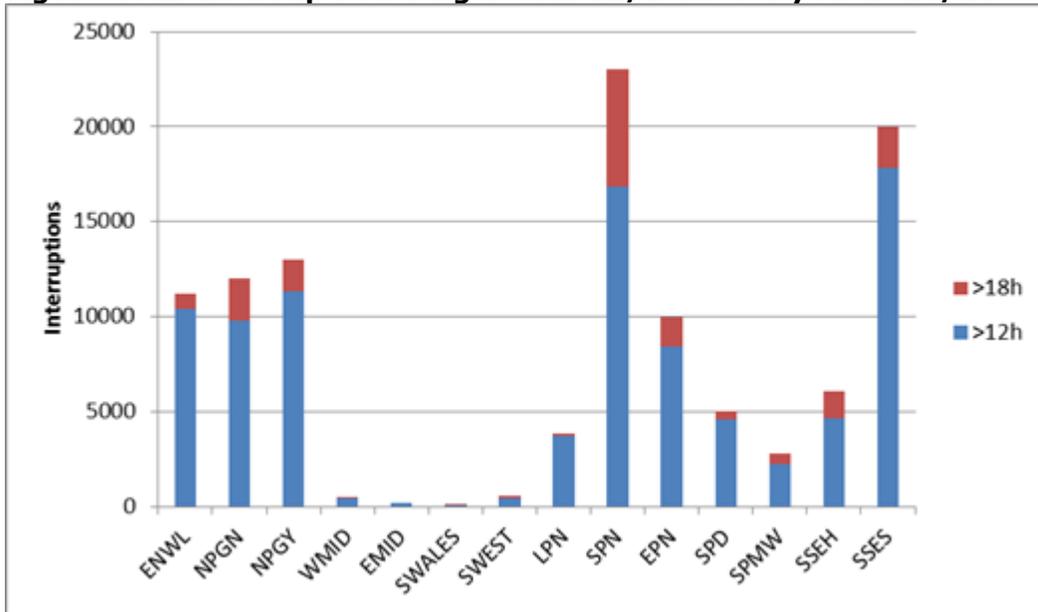


Table A8.2: Customer minutes lost (CMLs), by DNO, over the DPCR5 period to date

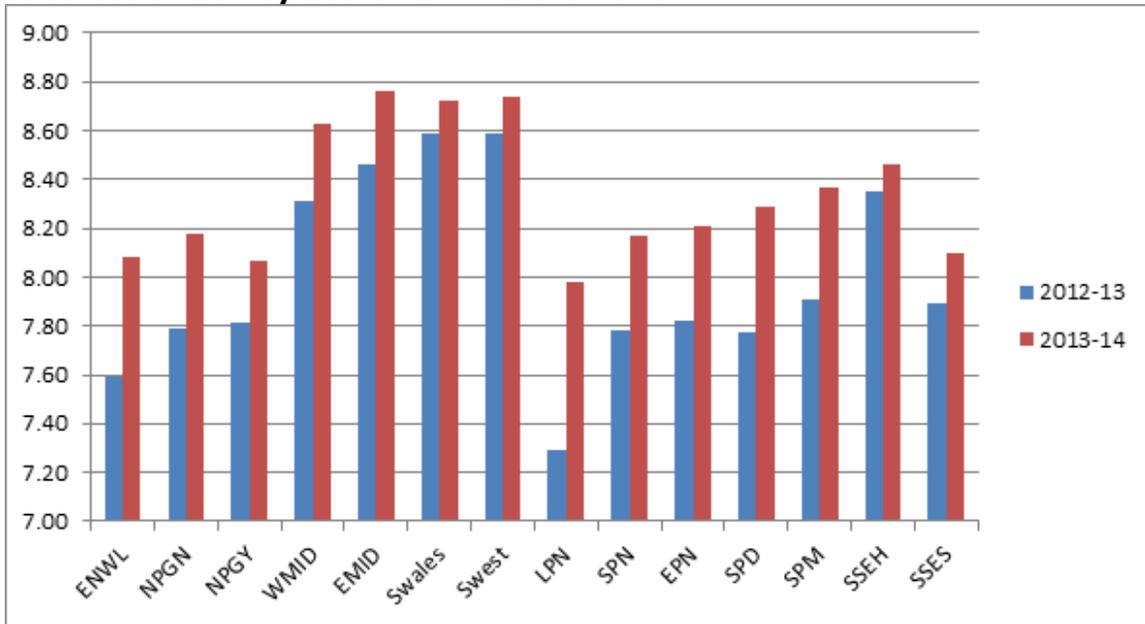
	2010/11		2011/12		2012/13		2013/14	
	Target	Performance	Target	Performance	Target	Performance	Target	Performance
ENWL	55.60	47.28	55.60	45.88	55.60	46.55	55.60	42.63
NPGN	71.30	71.15	71.10	68.51	70.90	70.20	70.70	69.98
NPGY	76.00	68.20	76.00	65.03	76.00	62.81	76.00	67.16
WMID	97.00	89.50	96.30	49.00	95.60	44.80	94.90	38.60
EMID	69.00	54.90	68.60	37.00	68.20	30.20	67.80	26.00
SWALES	44.60	32.40	44.60	37.14	44.60	29.82	44.60	30.99
SWEST	51.00	42.58	51.00	39.67	51.00	45.97	51.00	40.56
LPN	41.00	42.42	41.00	31.17	41.00	33.81	41.00	29.78
SPN	87.60	73.21	82.90	42.77	78.10	47.01	73.30	54.31
EPN	71.10	72.43	69.70	47.44	68.30	49.64	66.80	50.07
SPD	65.50	49.41	63.50	48.76	61.50	45.72	59.50	44.04
SPMW	61.10	47.49	60.60	43.57	60.10	42.84	59.60	44.79
SSEH	75.10	78.37	75.10	71.42	75.10	66.96	75.10	70.08
SSES	69.10	64.06	68.30	60.33	67.50	65.21	66.60	67.32

Customer satisfaction

Table A8.3: Broad Measure of Customer Service – Customer Satisfaction Survey Scores 2012-13 and 2013-14

	Overall Mean		Interruptions		Connections		General Enquiries	
	2012/13	2013/14	2012/13	2013/14	2012/13	2013/14	2012/13	2013/14
ENWL	7.59	8.08	7.77	8.31	7.62	7.83	7.14	8.09
NPGN	7.79	8.18	8.06	8.52	7.36	7.84	8.07	8.21
NPGY	7.81	8.07	8.04	8.21	7.48	7.73	8.01	8.43
WMID	8.31	8.63	8.39	8.76	8.21	8.54	8.34	8.52
EMID	8.46	8.76	8.48	8.82	8.42	8.69	8.53	8.80
SWales	8.59	8.72	8.78	8.83	8.33	8.61	8.71	8.73
SWest	8.59	8.74	8.58	8.76	8.57	8.73	8.65	8.71
LPN	7.29	7.98	7.56	8.14	7.23	7.81	6.87	7.98
SPN	7.78	8.17	7.92	8.18	7.47	7.85	8.11	8.77
EPN	7.82	8.21	8.11	8.29	7.34	7.89	8.23	8.67
SPD	7.77	8.29	8.13	8.57	7.41	8.08	7.79	8.15
SPM	7.91	8.37	8.29	8.54	7.33	7.93	8.33	8.89
SSEH	8.35	8.46	8.73	8.81	8.14	8.11	7.99	8.46
SSES	7.89	8.10	7.97	8.18	7.78	7.92	7.97	8.30
Average	8.00	8.34	8.20	8.49	7.76	8.11	8.05	8.48

Figure A8.3: Broad Measure of Customer Service – Overall Customer Satisfaction Survey Score 2012-13 and 2013-14



Secondary deliverables – health indices

1.29. The graphs in this section show our estimation of the DNOs’ performance against their HIs to date in DPCR5. The delta is a measure of the health indices with and without investment.

1.30. There are no annual or mid period targets. Therefore our charts show how much of each DNO’s total DPCR5 indicators it has delivered to date. This indicates whether the DNO may be on track to deliver its indices by the end of DPCR5.

1.31. We have not included an estimation of LI delivery. Due to the different approaches and inconsistencies in how DNOs assess LIs in DPCR5 it is difficult to compare how they may be performing against their DPCR5 targets.

Figure A8.4: DPCR5 to date HI delta from refurbishment and replacement (as a percentage of total DNO deliverable)

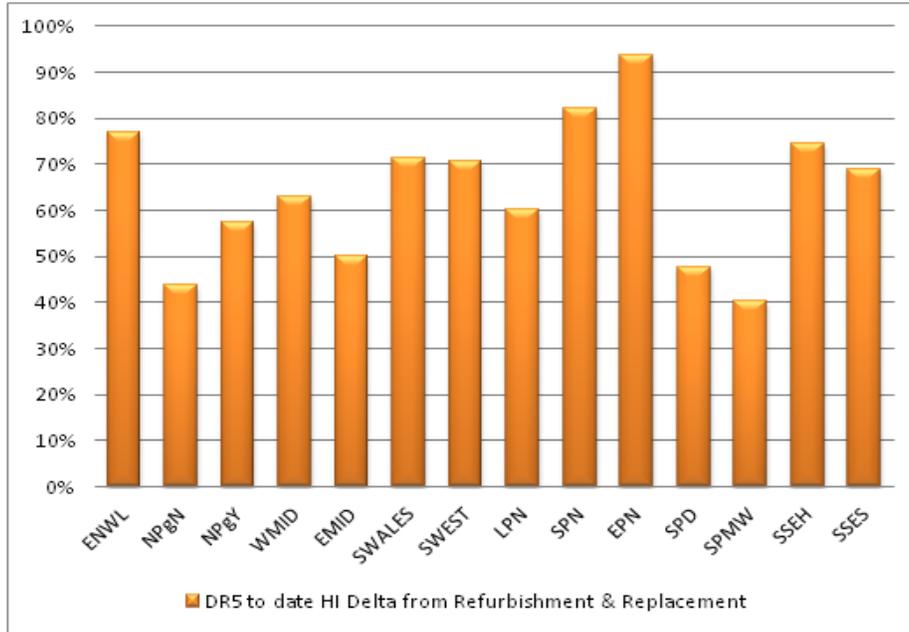
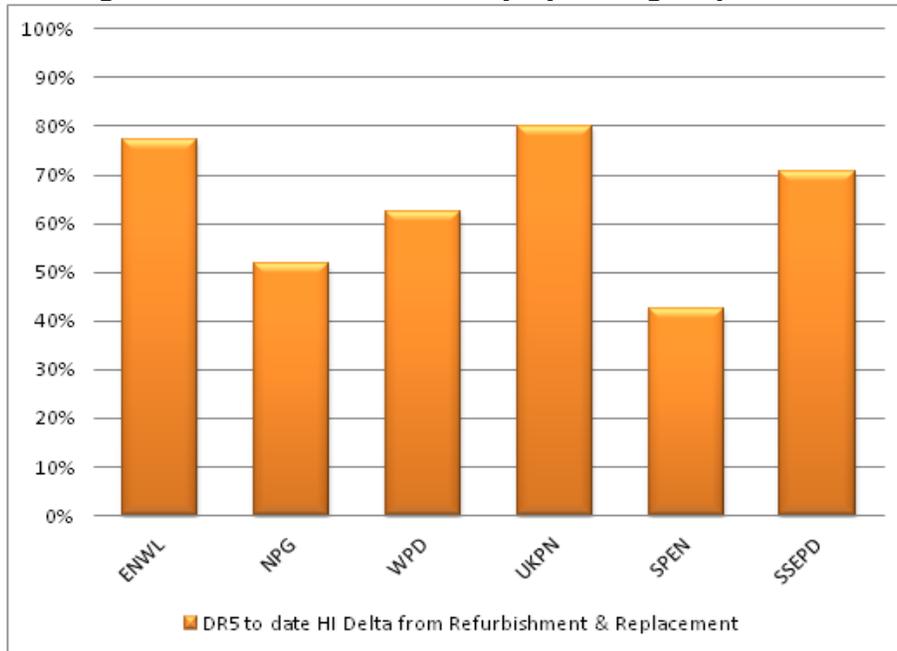


Figure A8.5: DPCR5 to date HI delta from refurbishment and replacement (as a percentage of total DNO deliverable) by DNO group



Appendix 9 – Impact assessment

1.32. This appendix is an assessment of:

- the impact of our draft determinations for the slow-track DNOs
- the impact of our proposed changes to specific policies described in our strategy decision.

1.33. It consolidates and expands the discussion of impacts in the chapters of this document and the supplementary annexes. It is not a stand-alone assessment. These documents in their entirety form our assessment of the impacts of implementing RIIO-ED1 for the slow-track companies for the purposes of section 5A of the Utilities Act 2000.

1.34. We have previously published the impact assessments below, which are relevant to this appendix.

- the adoption of the RIIO regulatory regime⁴⁹
- the RIIO-ED1 policy framework described in the strategy decision⁵⁰
- our decision to fast-track WPD.⁵¹

1.35. In this impact assessment we consider the following factors:

- monetised impacts
- distributional impact
- hard-to-monetise impacts:
 - impact on competition
 - impact on sustainability
 - impact on fuel poverty and consumer vulnerability & impact on health and safety
 - impact on European internal market/third package.

1.36. We assess the draft determinations against a base case of accepting the DNOs' slow-track plans as submitted.

1.37. We assess the proposed policy changes against a base case of no change.

⁴⁹ <https://www.ofgem.gov.uk/ofgem-publications/51904/impact.pdf>

⁵⁰ <https://www.ofgem.gov.uk/ofgem-publications/47150/riioed1sconimpactassessment.pdf>

⁵¹ <https://www.ofgem.gov.uk/ofgem-publications/84602/draftdeterminationsmaster.pdf>

Monetised impacts

1.38. Under the RIIO framework, the onus is on the DNOs to demonstrate that their business plans are cost efficient and give long-term value for money. All the slow-track DNOs have revised their plans from those submitted at fast-track. This has resulted in a reduction of more than £700m in expenditures and improved justifications and narratives.

1.39. We have reviewed the slow-track plans (as described in the main section of the document). We have accepted many elements, but in several areas our draft determinations are different. The differences with the most monetary impact are our allowed total expenditures and the allowances for the cost of equity and cost of debt.

Total expenditure

1.40. Our total expenditures are £1.4bn less than those in the DNOs' plans. We explain in Chapters 2 and 4 and the Business plan expenditure assessment supplementary annex how we come to our view of efficient cost, and why we think our proposals are reasonable.

Cost of equity

1.41. We issued our minded to decision on the cost of equity (6 per cent) in February. All the DNOs except UKPN included higher allowances in their plans. We explain in Chapter 5 and the Business plan financial issues supplementary annex why we concluded that 6 per cent is right for draft determinations. A change in cost of equity of 0.1 per cent is worth £60m for the slow-track DNOs over RIIO-ED1.

Cost of debt

1.42. We propose to modify the cost of debt index from what we described in the strategy decision. We explain why in Chapter 5 and the Business plan financial issues supplementary annex. Several DNOs presented evidence in their slow-track business plans, and subsequently, that the 10-year trailing average index is forecast to under-recover their forecast interest costs. Our analysis confirms this. In developing our proposal we tested a number of possible specifications. We found that trailing average periods starting at 15 years, as proposed by ENWL, would significantly over-remunerate DNOs' forecast interest costs across the sector. We found a 10 to 20-year specification provided effective protection from market interest rate uncertainty and closely matched remuneration to interest costs across the sector.

1.43. We signalled in the strategy decision that we would adopt different approaches to the cost of debt, if they were both robust and justified in light of DNOs' exceptional circumstances. A number of DNOs presented evidence in their business plans, and subsequently, that the 10-year trailing average index is forecast to under-recover their forecast interest costs.

1.44. Chapter 5 explains our analysis of the options that we considered for changing the cost of debt index, and their various impacts. The change in index design could be worth up to £200m over RIIO-ED1, depending on how interest rates move. It is not extra money, but ensures that the DNOs are not under-funded, on average, for their efficiently incurred debt. We think our proposals are both in the interest of consumers and consistent with our statutory duty to have regard to DNOs' ability to finance their regulated activities.

Summary

1.45. We think our draft determinations will:

- ensure the delivery of the required network outputs at value for money for consumers
- enable DNOs to finance their regulated activities.

1.46. Our proposals result in a reduction in allowed revenues of around 5.5 per cent on average over the RIIO-ED1 period relative to the current price control (DPCR5). The reduction in revenues translates into an underlying reduction of approximately £12 in the typical household bill over RIIO-ED1.

Distributional impact

1.47. The draft determinations and policy changes impact the allowed revenue which slow-track DNOs are allowed to recover from their customers. The amounts charged (via suppliers) to customers are calculated according to a common charging methodology for all DNOs. The charging methodology is not part of the price control review, and therefore not considered in this impact assessment.

Hard-to-monetise impacts

Impact on competition

1.48. We do not consider that our draft determinations and proposed policy changes have any appreciable impact on competition.

1.49. The RIIO-ED1 connections outputs have been designed to reflect different levels of competition in the market to connect customers to the distribution networks. Under the existing price control (DPCR5), we have assessed the extent to which there is effective competition in the area of contestable connections (through the 'Competition Test' process). We are now in the process of reviewing the connections market to identify the steps that need to be taken to improve the arrangements for competition.⁵² Any changes that may be required to further

⁵²<https://www.ofgem.gov.uk/publications-and-updates/competition-electricity-distribution-connections->

facilitate competition in connections will be considered separately from this price control review and are not considered further as part of this impact assessment.

Impact on sustainability

1.50. In Chapter 2 (Criterion 2) we discuss our assessment of the slow-track DNOs' business plans with respect to delivering environmental outputs.

1.51. The slow-track DNOs have considered the actions that they can take to control and minimise losses in the network. Where they have fully justified additional expenditure for loss reduction actions, we have allowed this expenditure in the cost benchmarking. DNOs' licences for RIIO-ED1 will require them to ensure losses on their networks are as low as reasonably practicable, and to maintain and act in accordance with their published losses strategies. We expect all DNOs to improve their losses strategies, and have highlighted particular weaknesses in the main document.

1.52. We required DNOs to explain in their plans how they will accommodate, and make best use of, the take up of low carbon technologies (LCTs). As part of this, DNOs had to forecast the number of LCTs they think they will connect over the price control period and provide evidence for this forecast. They also had to explain how they would flex their plans to accommodate differing take-up to their forecasts. We are satisfied with the DNOs forecasts and explanations.

1.53. We anticipate that the package of RIIO-ED1 outputs and incentives, alongside the innovation incentives, will provide significant benefits in the connection of LCTs in an appropriate time, at appropriate cost, without causing network problems. The innovation proposals will encourage the DNOs to further innovate and trial solutions to better accommodate the take-up of low carbon technologies and the connection of generation, particularly using smart grid solutions and customer response.

1.54. With respect to the other environment elements (eg undergrounding of lines in designated areas, business carbon footprint, reduction of SF6 emissions and leakage from FFCs) we have assessed all the slow-track plans to be acceptable.

Impact on fuel poverty and consumer vulnerability & impact on health and safety

1.55. We detailed in our strategy decision what we expect DNOs to consider with respect to social and safety obligations. For the social obligations, this includes an

emphasis on consumer vulnerability, as we believe that DNOs have an important part to play in assisting consumers in vulnerable situations.

1.56. As we explain in Chapter 3 (Criterion 2) we judge that all DNOs' business plans demonstrate a comprehensive strategy with respect to social obligations and that all DNOs have satisfactory safety outputs for RIIO-ED1.

Impact on European internal market/ third package

1.57. We do not consider that our draft determinations or proposed policy changes have any appreciable impact in this area.

Impact of proposed changes in RIIO-ED1 policy from our strategy decision

1.58. Our strategy decision set the policy framework for RIIO-ED1. When submitting their business plans, DNOs had the opportunity to propose and justify alternative or additional outputs or uncertainty mechanisms.

1.59. We are proposing to make changes to specific policies in the strategy decision. These are in three categories: the information quality incentive, financial policies and uncertainty mechanisms. We summarise the changes in Table 9.1 below and explain them further in the following sections.

Table 9.1: Proposed changes to strategy decision

Proposed change	Summary	Change to all or specific DNO?	Further information
Information Quality Incentive (IQI)	We propose to adjust the break-even point in the IQI matrix so that the best performing slow-track DNOs receive a reward.	All slow-track DNOs	Chapter 4
Financial - Redefined cost of debt index	Strategy decision set out the use of a 10-year trailing average for the cost of debt. We now propose a trailing average which becomes progressively longer over the price control period.	All slow-track DNOs	Chapter 5
Financial - Capital allowance pools	Strategy decision stated that we would retain the DPCR5 approach. We now propose to roll forward regulatory tax pool calculations at the end of the RIIO-ED1 period.	All slow-track DNOs	Chapter 5

Financial - Disposals	Propose to treat the proceeds or fair value of asset disposals as deductions from totex for the calculation of the efficiency incentive. In our strategy decision we stated that disposal proceeds are not included in the costs added to totex.	All slow-track DNOs	Chapter 5
Financial - Directly remunerated services	We propose to change the RIIO-ED1 treatment of top-up and standby services such that the majority will be treated as totex.	All slow-track DNOs	Chapter 5
Uncertainty mechanism - Rail electrification	This additional uncertainty mechanism is designed to allow DNOs to recover costs of diverting electricity lines as a result of Network Rail's rail electrification programme.	All slow-track DNOs	Chapter 6
Uncertainty mechanism - Moorside	Additional uncertainty mechanism to allow the recovery of electricity distribution network costs associated with development of a new nuclear power station.	ENWL	Chapter 6
Uncertainty mechanism - Streetworks	Extending the existing mechanism should new legislation be passed in Scotland.	SSEPD and SPEN	Chapter 6

Information Quality Incentive (IQI)

1.60. The IQI is used to encourage slow-track DNOs to provide business plans that reflect best available information about future efficient expenditure requirements. It provides a financial incentive (both positive and negative) to encourage the submission of accurate expenditure forecasts.

1.61. As we explain in Chapter 4 we think that it is appropriate to reward companies that have provided good information that aided our comparative benchmarking. In light of this we propose to adjust the break-even point in the IQI matrix versus the position we stated in the strategy decision. By moving the break-even point the best performing slow-track DNO groups will receive an ex ante reward.

1.62. The benefits of this proposed change include:

- ensuring DNOs that have provided good quality information which has aided our comparative benchmarking receive a reward – in line with the original policy intent of the IQI. It maintains penalties for those DNOs who have provided less robust forecasts
- preserving the incentive properties of the IQI for future price control reviews.

1.63. The potential downside of this proposed change is that it results in smaller overall penalties (and hence costs consumers more by approximately £290m). However we consider that this cost is more than offset by the benefits of this change including the savings delivered through effective comparative benchmarking in this and future price controls. The slow-track benchmarking has delivered cost savings of nearly £700m. We consider that our proposed rewards and penalties are proportionate to the robustness of the information that the companies have provided.

Financial changes

1.64. Taken as a whole, we consider that the changes we propose to the RIIO-ED1 financial policy framework have positive benefits to both consumers and DNOs.

Redefined cost of debt index

1.65. We discuss the impacts of this change in the Monetised Impacts section.

Capital allowance pools

1.66. We think our proposed change to the capital allowance pools is in the consumer interest. It will ensure that consumers enjoy the benefit of tax relief in respect of all expenditure they have funded through the RIIO-ED1 price control. We do not think there is any appreciable downside to making this change.

Directly remunerated services

1.67. We explain how we propose:

- to resolve any double recovery of costs for affected DNOs that has occurred over the DPCR5 period
- to treat such costs over the RIIO-ED1 period.

1.68. We consider our proposals to be in consumers' interests overall, with no notable downsides. The change ensures that there continues to be a reasonable incentive for DNOs to carry out these services for third parties but using a simpler, more transparent process.

Uncertainty mechanisms

1.69. When considering the addition of, and changes to, the uncertainty mechanisms in the strategy decision we have considered:

- the RIIO principles⁵³ on the needs for, and design of, these mechanisms
- the justification of any changes given by DNOs in their business plan.

1.70. We think that the uncertainty mechanisms in Table 9.1 above are justified. They meet the RIIO principle that uncertainty mechanisms are only deployed where network companies are unable to manage the uncertainty they face, whilst preserving the ability of the network companies to finance their businesses and deliver value for money for consumers.

1.71. Each of the proposed uncertainty mechanisms:

- can only be triggered and approved at a set window or on specific events during RIIO-ED1. This provides suppliers and other stakeholders with advance notice of potential changes in DNOs' allowed revenue which would impact their network charges
- will be subject to eligibility criteria (including materiality thresholds) and we will assess and consult on the proposals. This helps ensure that any additional allowed revenue is in the consumers' interest, well-justified and efficient

1.72. While only SSEPD has requested an uncertainty mechanism for the cost of diverting lines as a result of Network Rail's electrification programme, we think it is reasonable to provide this mechanism for all the slow-track DNOs. There is uncertainty around the timing and status of some of the schemes, and as explained in Chapter 6, there is also uncertainty around who will pay these costs. We see no reason to only provide this protection to one DNO – the mechanism will only apply to qualifying and material costs, which we will review.

Follow up/ review

1.73. It is important for us to continually review the work that we do and the impact that it has on our stakeholders. We will undertake a lessons learnt exercise at the end of the RIIO-ED1 review. As part of this we will look at the process and any lessons we can learn for future reviews.

⁵³ See Chapter 11 of the RIIO Handbook - <https://www.ofgem.gov.uk/ofgem-publications/51871/riiohandbook.pdf>

Appendix 10 – Overview of the electricity distribution sector

What is electricity distribution?

1.74. Electricity distribution networks carry electricity from the high voltage transmission network to industrial, commercial and domestic users. Some generators (generally smaller scale) are connected directly to the distribution network. Most distribution networks are owned and operated by privately owned companies (DNOs) who have territorial monopolies. Consequently, we regulate the revenues that DNOs can recover from consumers and incentivise them to innovate and find new ways to improve their efficiency and quality of service – using the price control process. The DNOs' duties and obligations are set out in licences and legislation.

1.75. As illustrated in Figure A1.1 there are 14 DNOs within six ownership groups. Distribution costs account for about 8 per cent of an annual dual fuel bill. The current cost per average household is approximately £111 per annum. In return, DNOs are expected to deliver a safe and reliable supply and to respond effectively to requests for new connections, complaints and queries.

The current price control – DPCR5

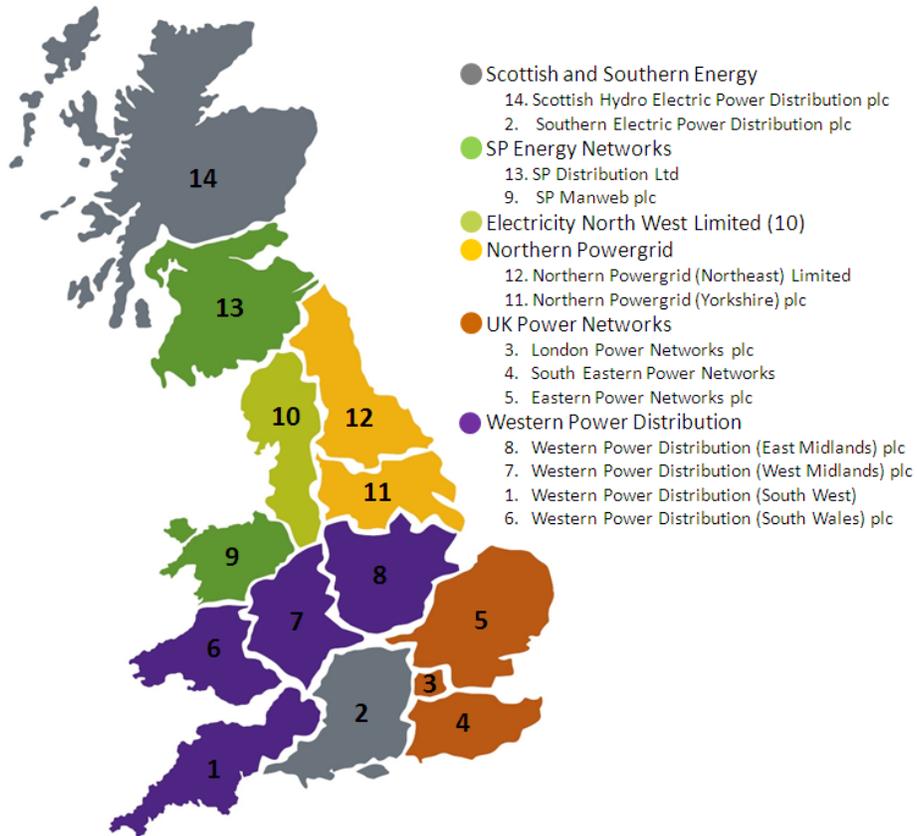
1.76. The current, fifth electricity Distribution Price Control (DPCR5) set allowed revenues for the period from 1 April 2010 to 31 March 2015. The price control takes the form of a revenue cap which determines the maximum revenue a DNO can collect from its consumers. The price control formula allows for the allowed revenues to be updated annually for the change in the RPI. It also allows for changes in specific cost or revenue items that we were unable to forecast with certainty at the price review (using uncertainty mechanisms), and adjustments for rewards and penalties in relation to DNOs' performance in managing interruptions, losses and customer service.

Components of a price control

1.77. In the price control review we set the base revenue, and the mechanisms for funding defined elements of uncertainty and calculating incentive rewards and penalties. We have illustrated this in Figure 10.2.

1.78. In setting the base revenue, we assess the company's proposed total expenditure (totex). Once we have determined the appropriate level of totex, we divide it into fast money and slow money, using the capitalisation ratio. Fast money is funded in the year incurred. Slow money is added to the regulatory asset value and is depreciated over 45 years.

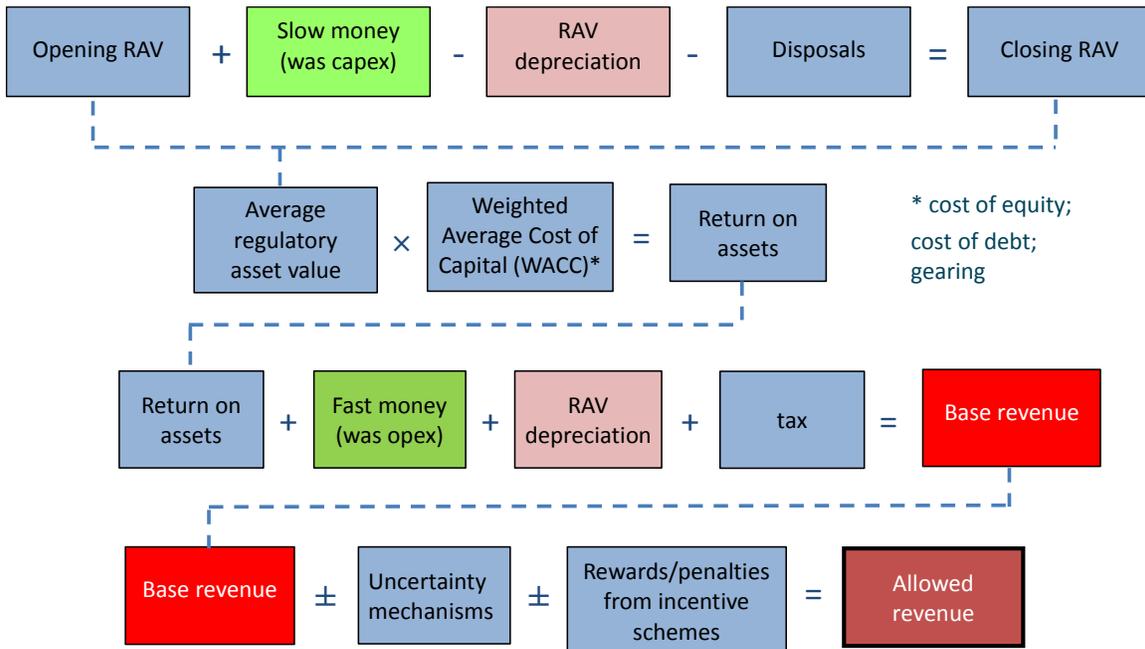
Figure A10.1: DNO location and ownership



DNO Group		DNO	
ENWL	Electricity North West Ltd	ENWL	Electricity North West Limited
NPg	Northern Powergrid	NPgN	Northern Powergrid: Northeast
		NPgY	Northern Powergrid: Yorkshire
WPD	Western Power Distribution	WMID	Western Power Distribution: West Midlands
		EMID	Western Power Distribution: East Midlands
		SWALES	Western Power Distribution: South Wales
		SWEST	Western Power Distribution: South West
UKPN	UK Power Networks	LPN	UK Power Networks: London Power Networks
		SPN	UK Power Networks: South East Power Networks
		EPN	UK Power Networks: Eastern Power Networks
SPEN	SPEN Energy Networks	SPD	SPEN Energy Networks: Distribution
		SPMW	SPEN Energy Networks: Manweb

SSEPD	Scottish and Southern Energy Power Distribution	SSEH	Scottish and Southern Energy Power Distribution: Scottish Hydro Electric Power Distribution
		SSES	Scottish and Southern Energy Power Distribution: Southern Electric Power Distribution

Figure A10.2: Components of a price control



Appendix 11 - Feedback Questionnaire

1.1. We believe that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about how this consultation has been conducted. We are also keen to get your answers to these questions:

1. Do you have any comments about the overall process adopted for this consultation?
2. Do you have any comments about the overall tone and content of the report?
3. Was the report easy to read and understand? Or could it have been better written?
4. Were the report's conclusions balanced?
5. Did the report make reasoned recommendations for improvement?
6. Please add any further comments.

1.2. Please send your comments to:

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