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Electricity Distribution Price Control Review Final Proposals - Incentives and Obligations

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Target audience:
Consumers and their representatives, distribution network operators (DNOs), independent distribution network operators (IDNOs), owners and operators of distributed energy schemes, transmission owners, generators, electricity suppliers and any other interested parties.

Overview:
Ofgem regulates the 14 monopoly regional DNOs to protect the interests of present and future consumers. We set a price control every five years that sets the maximum revenues that each DNO can collect from customers at a level that allows an efficient business to finance its activities. We also place incentives on DNOs to innovate and find more efficient ways to provide an appropriate level of network capacity, security, reliability and quality of service.

The current price control expires on 31 March 2010. This supplementary document sets out in greater detail the associated incentives and obligations of DPCR5.

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Context

This document is one of four more detailed, technical documents that accompany the distribution price control review five (DPCR5) Final Proposals. These documents set out the reasons, evidence, analysis and methodologies we have used in arriving at all of the decisions we have reached. These technical documents are targeted primarily at the DNOs and other stakeholders who require a more in depth understanding of our proposals and the rationale underpinning them in some or all areas. The DNOs have until 6 January 2010 to state whether they will accept these proposals. If they do not then we intend to refer the matter to the Competition Commission

In December 2008 we published our Policy Paper. This focussed on three key themes: environment, customers and network and set out our views on the overall approach to setting the control, our proposed methodologies, the structure of incentives and the new regulatory arrangements we considered appropriate.

In February 2009 all DNOs submitted updated forecasts for the final two years of distribution price control review four (DPCR4) and the five years of DPCR5. These were reduced from their initial level in August 2008, but still showed significant forecast increase in network investment and operating costs between DPCR4 and DPCR5. We identified significant issues with the forecasts and sought further information from DNOs to justify their forecasts.

In May 2009, we published our Methodology and Initial Results document, which set out details of our cost assessment methodology and initial results for a number of core cost areas. We explained that we would continue to develop our work in this area as we worked towards Initial Proposals.

In August 2009, we published Initial Proposals. We sought views on the outputs we expect and the behaviours we want to encourage from the DNOs and the mechanisms we propose to achieve them. We sought views on our initial view of the proposed revenues for the April 2010 to March 2015 period, and on the scope for shareholders to out or underperform our allowed rate of return within the price control period.

In September 2009, we published an update letter focussing on those areas of cost which we were not able to include in Initial Proposals because we required further information from the DNOs and other parties to form a view on the appropriate baseline revenue allowance.

In October 2009 we provided a written update to each of the DNOs on our view of allowed costs and revenues. We published these letters for stakeholders to consider.

While developing Final Proposals, we have taken into account views raised by stakeholders throughout the price control review. We have also continued to work closely with the RPI-X@20 review team, who are undertaking a root and branch review of the way we regulate electricity and gas, transmission and distribution networks in the future.

Associated Documents

- Electricity distribution price control review. Initial consultation document (32/08)
- Update letter on the DPCR5 process (151/08)
- Electricity distribution price control review. Policy Paper (159/08)
- Electricity distribution price control review. Methodology and Initial Results Paper (47/09)
- Electricity distribution price control review. Initial Proposals (92/09)
- Electricity distribution price control review. Initial Proposals - Incentives and Obligations (93/09)
- Electricity distribution price control review. Initial Proposals - Allowed revenue - Cost Assessment (94/09)
- Electricity distribution price control review. Initial Proposals - Allowed revenues and Financial Issues (95/09)
- Cover note Electricity Distribution Price Control Review Initial Proposals – Financial Model 2010-15
- Electricity Distribution Price Control Review - September Update to Initial Proposals
- Electricity distribution price control review - October update covering letter.
- Regulating energy networks for the future: RPI-X@20 Principles, Process and Issues (13/09)

Table of Contents

Summary

Introduction

1.1. The price control review provides us with an opportunity to review the entire regulatory framework to ensure that it encourages the type of behaviour that will deliver the services that DNOs' customers want at reasonable prices over the next five year period. We have consulted extensively on the objectives for the DPCR5 period and have received wide ranging support for a regulatory framework that addresses the following three themes:

- Environment: encouraging DNOs to play a fuller role in helping to tackle climate change, both directly through managing their own carbon footprint and indirectly by facilitating new uses of the networks that are likely to arise as we move to a low carbon economy.
- Customers: encouraging all DNOs to pay more attention to all aspects of customer service. These include the quality of service provided by their call centres, the speed and cost of new connections as well as the number and length of any interruptions to customers' supply.
- Networks: encouraging DNOs to invest efficiently, so that they provide secure and reliable supply at an efficient cost while ensuring that any new assets they install meet customers' needs into the future and, where possible, take into account how those needs might change.

1.2. We have developed a range of new incentives and amended existing incentives to put in place a regulatory framework that promotes these behaviours from the DNOs. This document sets them out in detail. The table below provides an overview of the range of incentives and obligations. Where appropriate, this table also provides the materiality of the incentives in terms of expenditure or pre-tax return on regulatory equity (RORE) measured in basis points (bps).[1]

Document Structure

1.3. The document is structured with each chapter covering an incentive scheme or new/revised obligation. We also set out in detail how we propose to apply the roller for the DPCR4 losses incentive mechanism. Each chapter sets out the aim of the incentive, the key developments since Initial Proposals, the detail of our decision and the reasons for that decision.

1.4. The appendices to this document set out further details. The appendices also include a high level summary of our approach to legal drafting for DPCR5. Summaries of responses from Initial Proposals and the September Update letters are available in Appendices 4 and 5 of the Core Document.

[1] Appendix 3 presents the details of how we have calculated these RORE exposure figures.

Behaviours	Mechanisms	Materiality across DPCR5	Pre-tax RORE exposure across DPCR5	
			Upside	Downside
Environment				
Undertake the trialling and innovation DNOs need to transition to a low carbon economy	Low Carbon Networks fund	£500m		
Provide Distributed Generation with simple, accessible information and connect them quickly and efficiently	Mandatory information provision DG Incentive			
Manage and reduce transmission connection point charges	Hybrid mechanism: pass-through with incentive			
Manage an efficient level of network losses	Revised incentive based on an output mechanism		97 bps	97 bps
Manage DNOs' greenhouse gas emissions	Annual reporting and comparative performance league tables			
Improve visual amenity where customers are willing to pay	Allowance for undergrounding in Areas of Outstanding Natural Beauty	£61m		
Customers				
Maintain and improve customer satisfaction across all services and for all different types of customer	Broad measure: customer satisfaction, complaint handling and stakeholder engagement		42 bps	42 bps
	Telephony incentive		1 bp	7 bps
Facilitate competition in connections	Allow margin for competitive connections	£40m (estimate)		
Improve service to customers seeking a demand or generator connection	Revised Standards of Performance Overarching licence condition		None	100 bps
Be proactive and innovative in engaging with all stakeholders, and particularly worst served and vulnerable customers	Customer service reward scheme	£5m		
	Worst served customer mechanism	£42m		
Improve quality of service by reducing the number and length of interruptions	Interruptions incentive scheme		Uncapped	139 bps
Networks				
Make business decisions based on what is right for the network	Equalisation of incentives for operating and capital costs			
Undertake technical research and development	Continuation of Innovation Funding Incentive (IFI) mechanism	£100m		
Deliver on agreed outputs in return for the price control settlement and maintain long term network health	Output measures addressing asset condition ('Health Indices') and substation utilisation ('Load Indices')			
Encourage investment in a sustainable workforce	Allowance for workforce renewal	£213m		

1. The Low Carbon Networks fund

Chapter summary

This chapter sets out our decision to put in place a new Low Carbon Networks fund to encourage the DNOs to innovate to deliver the networks we will need as GB moves to a low carbon economy. The mechanism will provide the DNOs, and partners, with funding of up to £500m to innovate and trial new technologies, commercial arrangements and ways of operating their networks.

Purpose of the funding mechanism

1.1. Our objective is to encourage the DNOs to use the DPCR5 period to begin the transition and prepare for the potentially greater role they will have to play as GB moves to a low carbon economy. We will therefore establish a Low Carbon Networks fund (LCN fund) to enable DNOs to run trials so that they can gain experience of the new technology, commercial and network operating arrangements that they should put in place to a) respond to the new network requirements that arise from a low carbon economy and b) encourage low carbon solutions such as demand side management. We also expect these trials will help us to understand what changes may need to be made to the regulatory framework to enable DNOs to respond to these challenges in subsequent price control reviews.

1.2. We are currently working on developing the detailed governance arrangements for the operation of the LCN fund. We will be consulting with interested stakeholders on our proposals in the first quarter of 2010 and aim to have the fund in place in the first year of the price control period.

Developments since Initial Proposals

1.3. The proposal to introduce an LCN fund has been well received by DNOs and most other stakeholders. They supported our objectives and generally agreed that the proposed level of funding, £500m, was sufficient to generate the required response from DNOs.

1.4. There was also support for our proposals for a two tier funding mechanism, depending on the size of the project. Tier 1 funding of £80m will be allocated between all DNOs to use for small scale projects, whilst Tier 2 funding of £320m will be available to encourage a small number of significant 'flagship' projects. Tier 2 funding will be provided centrally, with DNOs competing for funding. Around £100m will also be available to provide discretionary rewards to certain projects.

1.5. We have already received significant interest in the scheme from technology providers and suppliers both in GB and internationally. We do not therefore propose to change the main features of the scheme from those set out in Initial Proposals.

1.6. We have made some changes to the detail of the LCN fund arrangements. These are to address concerns raised by stakeholders that particular features could limit the use of the fund. Our aim is to avoid restricting projects being put forward that meet the objectives of the fund. We have therefore made changes where we think they will achieve this aim whilst keeping in mind that it is largely customers' money that will fund these projects.

Intellectual Property

1.7. The projects that will be financed by the LCN fund may create valuable intellectual property rights. In Initial Proposals we made two proposals. First that all network licensees in Great Britain should have free access to any intellectual property rights generated and should not, for example, have to pay licence fees. We also proposed that new intellectual property rights generated from projects funded by this scheme should be shared with GB customers, given that they would have funded typically 90 per cent of the trials' costs. Our initial view was that the split of any revenues from the sale of intellectual property rights should match the proportion of funds that customers had contributed into the scheme.

1.8. DNOs raised concerns that this approach would reduce the number of projects put forward, since a number of potential collaborators would not be prepared to enter into agreements on this basis. Whilst continuing to require DNOs to provide free licences to all GB electricity distribution network licensees for any intellectual property rights they generate from projects that use money from the LCN fund, we propose to relax this requirement for collaborators. We will therefore not make this a requirement for eligibility, but will deal with the issue on a case by case basis.

1.9. For Tier 2 funds, we will make collaborators' treatment of intellectual property part of the project proposal, bid and evaluation. Our guiding principle will remain that customers should, wherever possible, see the majority of any benefits as they will bear most of the risk by funding 90 per cent of the cost. But this will not prevent the DNO proposing innovative projects where collaborators will not give up intellectual property rights, as a judgement can be made by the expert panel about whether the project will still provide value for money for customers.

1.10. For projects funded through Tier 1, the default will be that customers will share in any value from the sale of rights generated through the trials in proportion to the funds they have contributed to the scheme, unless Ofgem has approved a different approach as part of the registration process for Tier 1 funds.

Discretionary reward

1.11. In Initial Proposals we proposed that £100m from the LCN fund would be available to provide a discretionary reward to those projects that bring particular value to the challenge of preparing networks for the low carbon economy. Our intention was that the size of this potential reward would provide a strong incentive to DNOs to dedicate the time and attention required to develop well designed, successful projects.

1.12. The feedback we have received from DNOs is that they consider a greater guarantee of a smaller reward is more likely to be effective in bringing forward projects compared with a lower probability of getting a higher reward. We therefore propose allocating the discretionary reward in two ways.

1.13. Part of the discretionary reward will be assigned to Tier 2 projects that successfully deliver against a set of criteria that will be determined as part of the evaluation process, and will be set out at the time the projects are approved. This could be set at a level to refund the DNO's contribution to the cost of the project. This should increase the expected return on Tier 2 projects that are successfully managed and delivered and therefore make them more attractive to DNOs.

1.14. The other part of the discretionary reward will be awarded to those Tier 1 and Tier 2 projects that are judged to have best met a set of criteria set out in the Governance Document. We discuss these further below.

Funding

1.15. A number of questions were raised about the way the scheme will be funded. In particular, DNOs want to avoid any risk that they will incur costs that they will be unable to recover. We have therefore made some changes to the funding arrangements to remove barriers to DNOs bringing forward the best projects whilst making sure customers can be expected to benefit from the scheme.

1.16. We expect that some projects (both Tier 1 and Tier 2) will generate direct benefits to DNOs. These direct benefits will be netted off from the project costs to calculate the level of funding that can be applied for. If these direct benefits are less than 10 per cent of the project cost, DNOs must still fund a minimum of 10 per cent of project costs. In Initial Proposals we asked whether DNOs should always be required to contribute at least 10 per cent of project costs, after the level of direct benefits had been deducted. We have decided not to implement this to increase the potential upside for the DNOs from taking part in these trials.

1.17. A number of DNOs asked whether they could recover the costs of preparing bids for Tier 2 projects from the LCN fund. We do not want to put in place arrangements that will lead to DNOs incurring inefficiently high bidding costs, or putting in speculative bids for projects that are unlikely to be accepted, on the basis that customers will cover these costs of preparing and submitting bids. The changes we have already discussed increase the average potential upside to Tier 2 projects, whilst reducing the risk of any downside. We think this upside will be sufficient to cover the costs associated with bid preparation. We recognise that DNOs will have certain set-up costs associated with putting these projects together. We will therefore allow the DNOs to use a maximum of 20 per cent of Tier 1 funding each year to cover the costs of putting in place the people, resources and processes to progress innovative projects, including the cost of putting together bids for Tier 2 funding. We consider that by allowing Tier 1 funds to be used in this way, there is no barrier to DNOs bringing forward high quality proposals for using the Tier 2 fund.

1.18. We are also looking at how we recover the costs Ofgem will incur in setting up and running the LCN fund.

1.19. We propose to introduce a screening process in advance of DNOs submitting the full bid to reduce further the risk that they will incur costs of preparing bids for projects that will not be accepted. This means DNOs will know whether any bid is likely to fail to meet the eligibility criteria for a Tier 2 LCN project before incurring the expense of a full bid.

1.20. At Initial Proposals, we envisaged that the allowed costs of LCN projects would be depreciated and recovered over a five year period. However, this could mean that some LCN fund costs would still be being recovered in DPCR7. We think it is better if most of the costs can be recovered within DPCR5. The purpose of the fund is to support trialling during this period. Our RPI-X@20 project may lead to wider, cross-industry initiatives to stimulate innovation. We will annualise any multi-year project costs and allow them to be expensed in the first year of the project,[2] although we recognise that some costs will still need to be recovered in DPCR6.[3] We will also need to put in place a mechanism for companies to pay back money if the projects are terminated before all funded costs have been incurred.

1.21. In Initial Proposals we proposed that the Tier 2 funding would be offered on an annual "use it or lose it" basis, but that the annual project limit of £64m could be ramped up through the period. We were concerned that it would take time for DNOs to develop suitable projects. Following discussions with DNOs, we are more confident that enough projects of sufficient quality will be ready to be brought forward in the first year of DPCR5. We therefore propose an even profile of funding over the DPCR5 period. But as there will inevitably be learning that will take place in the first year of the scheme we propose to allow up to 25 per cent of the first year project limit to be carried over in the event that it is not awarded. Any carry-over will be spread evenly over the remaining four years of the scheme.

Details of the mechanism

Objectives and eligibility

1.22. Our objective is to encourage the DNOs to use the DPCR5 period to prepare for the role they will have to play as GB moves to a low carbon economy. The LCN fund will comprise a total of £500m. This will fund the DNOs to run trials so that they can gain experience of the new technology, commercial and network operating arrangements to respond to the new network services and requirements that we will need as we move to a low carbon economy and to encourage low carbon solutions such as demand side management.

[2] Although this will result in higher charges in the short term, the overall cost to customers will be unchanged in net present value terms.
[3] These could potentially include costs associated with projects awarded in the fifth year of DPCR5, discretionary awards or cost overruns.

1.23. We have discussed and developed our proposals with the assistance of the Environment Working Group and Ofgem's Consumer Challenge Group. We have also maintained close contact with the Department of Energy and Climate Change (DECC).

1.24. For a project to be eligible for LCN funding, it must involve the introduction of a technical or commercial application by a DNO that:

- accelerates the development of a low carbon electricity system,
- directly impacts the performance of a DNO's network[4],
- delivers benefits to existing and/or future customers that are expected to exceed the costs of the project, and
- generates new knowledge[5] that can be shared amongst all GB licensed electricity DNOs.

1.25. Since our intention is that the fund allows for trialling of existing technology or commercial arrangements, we do not expect the LCN fund to be available for projects that involve significant amounts of research and development (R&D). Instead, the existing Innovation Funding Incentive (IFI) arrangements will continue to fund technical R&D aimed at improving network performance (the IFI is described in greater detail in Chapter 20). The LCN fund will not cover projects that we would expect companies to undertake in their normal course of business. Examples include where the direct benefits to the DNO could reasonably be expected to cover the costs of the project or because the costs have already been allowed for in the DPCR5 settlement.

1.26. All funding will depend on the DNO having clear arrangements in place for capturing the lessons of the project and disseminating these to other DNOs and interested parties effectively.

1.27. One of the main purposes of this fund is to ensure that the DNOs learn and develop their thinking, business processes and investment strategies to ensure their network is capable of operating effectively over the longer term as we move to a low carbon economy. The LCN fund provides a significant opportunity in DPCR5 for the DNOs and we expect all DNOs to participate, either through proposing projects and/or implementing the lessons learned. If any DNO does not submit proposals to the LCN fund during DPCR5, or does not adopt the learning from projects undertaken by other DNOs, we will consider whether their shareholders should fund all (or part) of any catch-up to industry best practice in setting allowances as part of DPCR6.

[4] An exception to this requirement will be made to allow the LCN fund to be used for DNOs to trial schemes where they act as a finance intermediary as part of the Energy Saving Trust trial of "pay as you save" schemes. We do not expect the cost of these schemes to be significant.
[5] This means there will be no funding for unnecessary duplication of projects. It is for DNOs to demonstrate the new knowledge that the project will deliver, given the existence of other projects.

1.28. The Government and Ofgem have set up a cross industry group under the Electricity Network Strategy Group (ENSG[6]), to take forward a study on smart grids in a UK context. It published its smart grid vision in November 2009.[7] We hope this initiative will generate questions and identify areas of interest that DNOs can then use the fund to investigate.

1.29. We recognise that the operation and management of this mechanism could be time consuming and resource intensive, and we have designed the mechanism to balance oversight and risk to customers who pay for the fund. As discussed earlier in this chapter, we are therefore proposing a two tier funding mechanism. We describe Tier 1 and Tier 2 funding in turn below.

Tier 1 funding

1.30. Tier 1 funding of £16m per year will be allocated among all DNOs (according to their customer numbers) on an annual basis from the beginning of DPCR5. This value should be large enough to fund a reasonable number of smaller projects, but small enough to allow minimal Ofgem review.

1.31. Projects will have to conform to detailed guidelines that will be issued to ensure they meet the objectives of the LCN fund and prevent the money being used for normal business activities. Ofgem will not approve the projects against these guidelines, rather the DNOs will self-audit their projects. However, we reserve the right to disallow the costs if we subsequently discover (either during the project implementation or after its completion) that the project did not conform to the guidelines.

1.32. The DNOs will have to register the proposals with Ofgem so that we can confirm there is no unnecessary duplication of trials across DNOs. DNOs can register proposals at any time during the year and, once we have confirmed non-duplication, the DNO will be able to commence the project.

1.33. In addition to funding small projects, the DNOs can use up to 20 per cent of Tier 1 funding each year to cover the costs of putting in place the resources and processes to progress innovative projects. This can include the cost of putting together bids for Tier 2 funding. These costs will need to be identified and conform with the reporting guidelines.

Tier 2 funding

1.34. Tier 2 funding of £64m per year will be available to encourage a small number of significant 'flagship' projects.

[6] http://www.ensg.gov.uk/
[7] "Electricity Networks Strategy Group - Smart Grid Vision", November 2009.

1.35. Tier 2 funding will be provided centrally, with DNOs competing for funding. This means that all DNOs will contribute a share of each project's cost. We have chosen this central mechanism to achieve a critical mass of funds across DNOs (thereby affording larger projects) and to create competition among DNOs for the funds (to encourage DNOs to participate and submit high quality proposals). We recognise that this tier will require more Ofgem involvement to assess proposals, decide which projects receive funding and review projects during and after implementation.

1.36. The Tier 2 process will comprise an initial screening process, where DNOs put forward projects to Ofgem to assess whether they are likely to meet the eligibility criteria. This will be followed by an annual call for proposals. At this point, Tier 2 proposals will be limited to two per DNO group per year.

1.37. The bids will be evaluated by an expert panel. We intend that this panel will consist of Ofgem senior executives and senior experts in the fields of environment, industry, engineering and economics. All members of the panel will be independent of any of the DNOs or collaborators that are making bids.

1.38. Tier 2 projects will be monitored closely by Ofgem. All project submissions will be published,[8] and will therefore be subject to external scrutiny. This will encourage the DNOs to produce high quality proposals.

1.39. Ofgem will conduct regular reviews of ongoing Tier 2 projects, with the option for either party to stop the project if it is not succeeding. If a project is halted, any unspent funds will be returned to customers.

1.40. On completion of the project, the DNO will produce a detailed project report for publication and will implement the identified measures to share the project learning with the other DNOs and interested parties.

Discretionary reward

1.41. We propose that £100m from the LCN fund would be available to provide a discretionary reward to projects that receive LCN funding during the five year period.

1.42. As we discussed above, part of the discretionary reward will be assigned to Tier 2 projects that successfully deliver against a set of criteria that will be determined as part of the evaluation and award process and part will be awarded to those Tier 1 and Tier 2 projects that are judged by the expert panel to have best met a set of criteria. These criteria will include the degree of learning that the projects have delivered, the extent to which the learning can be deployed and evidence of particularly successful collaborations, including the extent to which the project has

[8] DNOs can propose that limited parts of the proposal can be withheld from public scrutiny if they can demonstrate that they will face commercial harm from disclosure and that they consider the information is eligible for exemption under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

involved the DNO reaching out beyond the energy industry to form new relationships and to learn from experience from other sectors.

1.43. It is important that the reward is not restricted to 'successful' projects. Valuable learning could be obtained and disseminated from projects that do not deliver their expected benefits. For example, learning could be obtained where promising new technologies are shown to be more expensive, less reliable, do not deliver the expected benefits or where the projects identify significant legal or regulatory barriers to the commercial arrangements required to make a project viable.

1.44. We understand that it will be important that we make it clear what the criteria for judging the projects will be, as well as the size of the rewards and the time and frequency of judging. We will develop these criteria and other details over the coming months and include them in the LCN fund Governance Document.

Funding

1.45. We expect that some projects will generate direct benefits to DNOs. For example, direct benefits may come from an improved performance that generates higher expected incentive payments or from saving costs that have been allowed under the DPCR5 settlement. These direct benefits will be netted off from the project costs to calculate the level of funding that can be applied for. Further, if these direct benefits are less than 10 per cent of the project cost, DNOs must still fund a minimum of 10 per cent of project costs.

1.46. We recognise that innovation and trialling involves an element of risk in that the costs, benefits and impacts of the project are not fully understood. This is one of the main reasons why DNOs may not undertake these projects under the normal regulatory framework.

1.47. We have two mechanisms to mitigate trialling risk, in addition to the discretionary reward described above. First, to the extent that direct benefits identified at the time of the project proposal and taken into account when determining the DNO funding element do not materialise, DNOs can apply to have 50 per cent of the un-realised benefit funded. Second, for Tier 2 projects only, the DNO can also apply to have unexpected additional costs funded. The DNOs will need to submit a detailed justification for any claim. It is clearly in their interest to notify us as early as possible that this is happening, to find out whether the additional funding is likely to be awarded before proceeding with the project as there may be situations where it is better for the project to be cancelled than to provide additional funding.

1.48. The risk elements and their treatment are summarised in Table 1.1 below.

Table 1.1 - Summary of the treatment of different trialling risk elements within the LCN fund

Cost elements	Risk	Our approach	DNO impact	Consumer impact
Project cost	Project costs more than proposed (for Tier 2 only)	If satisfactory justification, excess funded through LCN fund	None	Pay additional project cost
	Project costs less than proposed	DNO refunds excess	None	Receive cost saving
Direct benefits	Benefits less than identified	Funding shortfall shared between DNO and LCN fund	Pay 50 per cent of shortfall	Pay 50 per cent of shortfall
	Benefits more than identified	No action	Receive additional benefit value	None

1.49. We recognise that, together with the discretionary reward, these proposals provide significant risk protection to the DNOs. We think this is appropriate to incentivise the DNOs to undertake what are higher risk projects than their 'business as usual' activities (which activities are reflected in the weighted average cost of capital and the potential return on regulatory equity range the companies can earn through the price control settlement).

1.50. All funding will be offered on a "use it or lose it basis", up to the limit for each tier of funding and subject to the provisions for limited carry-over of Tier 2 funds in the first year described above. For Tier 2 projects that are due to last for more than a year, the costs will be annualised for the purpose of assessing whether the total is within the allowed cap. This will be done by calculating the net present value of the forecast stream of net project costs to be recovered by the fund.

1.51. To provide the funding for the Tier 2 projects, all DNOs' allowed revenue terms will be amended through a Direction. This is because the costs of these projects will be shared across all DNOs (according to their customer numbers). We can only calculate each DNO's customers' contributions once the value of the approved projects is known. Following this Direction, the DNOs can then set charges to recover the required revenue and then transfer additional funds directly to the implementing DNO.

1.52. Given the timetable associated with these changes to the DNOs' allowed revenue terms, the projects may be approved and ready to start before the funds for Tier 2 projects become available. We do not think this should hold up the start of these projects. The financial modelling that we have undertaken for DPCR5 shows that DNOs should have sufficient cashflow to fund these projects initially. We will

take account of any delay in receiving funding when calculating the value of the costs that can be recovered.

Collaboration and third party funding

1.53. We consider it vital that the DNOs work with partners on these projects. It is likely that as we move to a low carbon economy the use of the distribution network will become more integrated with other parts of the electricity market and therefore value from potential projects is likely to flow to multiple parties in the supply chain. It is also possible that DNOs can benefit from lessons learned and experiences outside the electricity sector (e.g. telecoms) in which case partnerships could also be with companies and partners from outside the energy industry.

1.54. We expect DNOs to work collaboratively on projects funded through the LCN fund. Third parties will not be able to apply directly to Ofgem for funding through the mechanism because the main purpose of any project is trialling on a DNO's network. Third parties can partner with a DNO (on whose network the project will be trialled), with the DNO then proposing the project, even if it is a minority participant in any consortium.

1.55. We anticipate that there could be a broad range of potential partners including equipment suppliers, IDNOs and energy retailers partnering to develop new retail/Energy Service Company (ESCO) type services. We do not propose to place any restrictions on the parties that DNOs may choose to partner. The use of collaborators will be part of the evaluation criteria for the Tier 2 projects.

1.56. We have already heard from a number of third parties who have interesting ideas that may be suitable for trialling on the DNOs' networks. We expect the DNOs to engage with these third parties. We suggest that the Energy Networks Association (ENA) should hold a central database of interested parties and projects. That way, the DNOs cannot claim that they are not aware of them. We also propose to allow third parties to submit proposals for projects to us to evaluate whether they are likely to pass the eligibility criteria for the LCN fund. If we think that the proposals would be eligible, we will pass this information on to all DNOs.

1.57. If it becomes apparent that DNOs are failing to engage effectively with third parties that are interested in participating in this scheme, we will take further action to make this happen. This could include a requirement on DNOs to enter into agreements with third parties and/or to lease parts of their networks to third parties to allow them to carry out trials under the LCN fund.

1.58. We will strongly encourage the DNOs to seek additional funding from other sources such as specialist funds (including EU funds) or commercial entities, in order to make best use of the funding we are providing.

Timetable

1.59. We intend that the projects that will be funded through the LCN fund will begin as early as possible in DPCR5. There are a number of activities that will need to take place over the coming months to ensure that this happens. These include:

- the drafting of the Governance Document that will set out the details of the scheme[9],
- the selection and appointment of the expert panel, and
- the creation of the registration database for Tier 1 projects.

1.60. We will continue to engage with stakeholders to progress this work. We intend that the necessary documentation and processes will be in place for Tier 1 projects to begin at the start of DPCR5 on 1 April 2010.

1.61. We expect DNOs already to be talking to potential collaborators and working on potential projects for inclusion in Tier 2. We appreciate that the preparation of the detailed bids can only start once the Governance Document has been issued. We therefore expect that the first call for bids will take place in the third quarter of 2010, with the award being made in the fourth quarter of 2010.

1.62. We will conduct a formal review of the LCN fund after two years of operation to assess its effectiveness and whether any improvements can be made to increase the efficiency and appropriateness of the governance and administration.

1.63. If, as part of the review, we judge that the DNOs are not actively participating in the fund, we expect to introduce a licence condition that requires DNOs to allow trials (run by third parties) on their networks.

Registered Power Zones

1.64. We will discontinue the Registered Power Zone (RPZ) mechanism, since the innovative DG connection projects that it was created to fund can be funded in DPCR5 under the LCN fund. We will maintain the current deadlines at March 2010 for RPZ registration and March 2012 for commissioning.

[9] This will include the eligibility criteria for schemes, the evaluation process for Tier 2 projects and the award of discretionary payments.

2. Provision of information to distributed generation

Chapter summary

This chapter sets out our proposals for the provision of information to distributed generation customers.

Purpose of the obligation

2.1. DNOs have forecast substantial levels of distributed generation (DG) connections over DPCR5. New customers wishing to connect DG will have very different levels of knowledge and experience. At one end of the spectrum will be domestic customers and small, local community based schemes. At the other will be large existing energy generators familiar with all of the existing industry rules, codes and agreements. Many customers wanting to connect DG have found it difficult to understand the information they need and how to obtain it. Many complain that the DNOs do not provide the information in a simple and accessible way and are more geared towards servicing large, well-informed existing industry players.

2.2. Our proposals aim to improve the availability of simple, accessible and reliable information to meet the needs of all customers wanting to connect DG to a DNO network. We hope this will help to stimulate further the penetration of DG. Our proposals will enable distributed generators of any size to:

- obtain easy access to information (targeted to their specific needs) explaining the connection process, issues and likely costs,
- obtain easy access (e.g. via the internet) to network data so as to gain a better understanding of connection opportunities,
- receive a connection budget estimate in an agreed timescale, and
- receive an offer of connection in an agreed timescale, with costs broken down and explained.

2.3. These proposals link closely to our proposals on connections discussed in Chapter 10 and the broad measure of customer satisfaction discussed in Chapter 13.

Developments since Initial Proposals

2.4. In Initial Proposals we set out our proposals for the provision of better information to potential DG customers. These proposals received broad support in the consultation responses, although there were concerns around what level of detail would be required.

2.5. We have had discussions with the DNOs since Initial Proposals to discuss the revised format of the Long Term Development Statement (LTDS) and the requirements for the DG Connections Guide and Information Strategy in more detail

and to ensure that they are liaising with their stakeholders and will be in a position to fulfil the information requirements from the beginning of DPCR5.

2.6. Our broad proposals for the provision of information to DG have not changed since Initial Proposals.

Details of the obligation

2.7. We propose to set out specific obligations and standards of service for information provision and introduce a licence obligation requiring DNOs to submit an information strategy to the Authority for approval. In their strategy each DNO will detail how they plan to ensure that all customers receive a suitable and tailored level of information and a satisfactory standard of service.

DG Connections Guide

2.8. We propose to introduce a licence obligation that requires the DNOs collectively to provide, in a form approved by the Authority (and updated annually), a set of documents (each one targeted to a different customer group, as defined by the DNOs), called the DG Connections Guide, which provides guidance on the connection process for DG. We expect DNOs to get input from relevant stakeholders to inform the development of this guide.

2.9. In terms of accessibility, we expect as a minimum that this document will be freely available to the public on the DNOs' websites.

Long Term Development Statement (LTDS)

2.10. We propose that the LTDS remains a technical document, limited in scope to the extra high voltage (EHV) network. We are not convinced that it would be appropriate to mandate the extension of the LTDS to the 11kV network, but as we discuss below, we invite DNOs to provide network information for customers connecting at lower voltage levels in simpler, alternative forms.

2.11. We propose to revise the current LTDS form of statement[10] in order to improve the consistency, clarity and availability of the statements. We will consult stakeholders on the improvements prior to issuing a Direction for the preparation of a revised LTDS in late summer 2010.

[10] The current form of statement is available at: http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=5&refer=Networks/Techn/NetwrkSupp/LongTermDS

Standards of performance

2.12. We propose to introduce standards of performance for the provision of connection cost information including budget estimates as well as for the provision of connection offers. For further details see Chapter 11 on connections standards.

Strategy for information provision

2.13. We recognise that there may be gaps that are not covered by specific obligations, for example availability of high-level network information for lower voltage levels, and we consider that users will benefit from DNOs adopting an holistic approach to information provision.

2.14. We propose to introduce a licence obligation which requires the DNOs to deliver, and have approved by us, an overall strategy for information provision which shall set out the actions and tools DNOs are committed to implement in order to support their customers during the connection decision process. In particular, this wider information strategy shall fill the gaps not covered by the previous obligations.

2.15. This strategy aims to incentivise DNOs to think carefully about who their customers are likely to be and what information requirements they may have. It also provides DNOs with the flexibility required to focus their resources on meeting the needs of their specific mix of customers. Continued stakeholder engagement will constitute a critical element for the success of this strategy.

2.16. We intend to assess the success of the DNOs' strategies through the broad measure of customer satisfaction that is being developed.[11] Results from the broad measure of customer satisfaction should pick up where a DNO has an inappropriate strategy or fails to keep it under review.

[11] For further details, please see Chapter 13

3. Distributed generation incentive framework

Chapter summary

This chapter sets out our proposals for retaining the existing financial incentives on DNOs to connect distributed generation.

Purpose of the incentive

3.1. The DNOs are forecasting that more than 10GW of generation will connect to their network over the next five year period (compared with 2GW that has connected during DPCR4). The purpose of the distributed generation (DG) incentive framework (introduced at the beginning of DPCR4) is to encourage DNOs to undertake the investment required to facilitate these DG connections (and generally be proactive and positive in responding to such connection requests) and encourage DNOs to invest efficiently and economically.

3.2. We propose to retain the current framework for DPCR5 with a revised DG incentive value to reflect current circumstances. We recognise that there is significant uncertainty around the volume of DG that will connect in DPCR5, its generation type, location and voltage, all of which make it very difficult to anticipate the cost of connecting the DG to the networks. We want the DPCR5 DG incentive to maintain the strong incentive for DNOs to connect DG whilst protecting DNOs from the risks of increased DG connection costs and making sure that customers do not pay more than is required. Our proposed DG incentive for DPCR5 is set so that if much more DG connects than is anticipated or if it costs more than forecast, the DNOs' allowed revenues will flex and there should be no regulatory barriers preventing DG connecting.

Developments since Initial Proposals

3.3. At Initial Proposals we described our proposals to retain the DPCR4 DG incentive framework, with minor modifications. Respondents agreed with the retention of the DPCR4 mechanism.

3.4. Some respondents challenged the proposed value of the incentive, stating that we are proposing to reduce the strength of the incentive compared to DPCR4. However, as explained in Initial Proposals, this is not the case. The incentive value is less in DPCR5 because it is being calculated on a different basis, but will have the same overall strength and effect. This is because in DPCR4 the incentive and pass-through formula were originally developed assuming a 'shallow' connection boundary for DG. The boundary was then changed to a 'shallowish' connection boundary and we decided (following consultation) to retain the original DG incentive amount to cover the total shared costs but treat the connection charges paying for the shared connection assets as capital contributions towards the allowed revenue. For DPCR5 we have requested that the DNOs submit forecasts based on the ‘shallowish’ connection boundary. This means that the work-around implemented for DPCR4 is no

longer required and the DG incentive value and pass-through can both be based on the cost of use of system connection assets. This results in a lower value for the DG incentive, but the combined effect in conjunction with the pass-through is the same.

3.5. We also noted in the Initial Proposals that the DG forecast capacity and cost was significantly less than that used to create the DPCR4 incentive, but that there is significant uncertainty around the forecasts for both the volume of DG capacity connecting and the cost of its connection. However, due to the uncertainty surrounding the DG forecasts, we proposed not to reduce the DG incentive rate. We are retaining this position in our Final Proposals.

3.6. The DG incentive is calculated to provide DNOs with an additional rate of return of 1 per cent above the current allowed cost of capital. As stated in Initial Proposals, using use of system connection assets only, the equivalent cost to that used in DPCR4 is £34/kW which resulted in an incentive rate of £1/kW/year in Initial Proposals. We recalculated the DG incentive (using the same basis as used for Initial Proposals) to reflect the WACC of 4.7 per cent (vanilla, equivalent to 5.6 per cent pre-tax) proposed in these Final Proposals. This resulted in a small reduction in the incentive rate, but due to the uncertainty surrounding the DG forecasts, we propose to retain the DG incentive rate at £1/kW/year (pre-tax).

Details of the incentive

3.7. As is shown in Table 3.1 below, the majority of elements within the DG incentive framework will remain unchanged for DPCR5.

Table 3.1 - Comparison of DG incentive framework for DPCR4 and DPCR5[12]

Framework element	DPCR4	DPCR5
Pass-through	80 per cent (annuitized over 15 years)	80 per cent (annuitized over 15 years)
DG incentive value	£1.50/kW/yr for 15 years (£2.00/kW/yr for SSE Hydro)	£1.00/kW/yr for 15 years
Cap and collar	Cap: two times WACC Collar: assumed cost of debt	Cap: two times WACC Collar: assumed cost of debt
O&M allowance	£1.00/kW/yr	£1.00/kW/yr
'High cost' projects	Direct reinforcement costs in excess of £200/kW	Direct reinforcement costs in excess of £200/kW
Network access	£0.002/kW/hour	£0.002/kW/hour

3.8. The broad characteristics of the DG incentive framework are that:

- The costs incurred by the DNOs to provide network access to DG are given a partial pass-through treatment, and

[12] All incentive values are pre-tax values.

- The DNOs are then given a further supplementary £/kW revenue driver (or incentive rate) to incentivise efficient connection of DG to the network.

Pass-through and incentive

3.9. The hybrid incentive framework combines incentives for efficiency (the incentive) with protection against cost uncertainty via a partial pass-through mechanism. We consider that the existing 80 per cent pass-through rate (annuitized over 15 years) remains appropriate and therefore we propose to retain it for DPCR5.

3.10. As explained in Initial Proposals, we propose to modify the pass-through formula to only consider use of system connection assets.

3.11. Similarly, we propose to calculate the DG incentive rate based on use of system connection assets only. The calculation still gives the DNOs an additional rate of return of 1 percentage point above the DPCR5 pre-tax WACC of 5.6 per cent and gives an incentive rate of £1/kW/year (pre-tax). We propose to use the same DG incentive rate for all DNOs in DPCR5.

3.12. The incentive rate will remain in place for the assumed life of the DG connection asset, that is 15 years after the date of connection (this is unchanged from DPCR4).

Cap and collar on DNO returns

3.13. We propose to retain the DPCR4 principles in setting the cap and collar on DNO returns to protect both the DNO and consumers against cost uncertainty. This means that the collar on the rate of return on use of system connection assets incurred to connect DG in DPCR5 will be the assumed cost of debt (3.6 per cent pre-tax) and the cap will be two times the pre-tax WACC (11.2 per cent).

3.14. If there are no costs associated with use of system connection assets required to connect DG over DPCR5, the DNO's DG incentive income over the period (and beyond) will be capped at £0 for the DG connected in DPCR5. The DG incentive and pass-through apply to use of system connection assets only (with costs being recovered via use of system charges). Therefore, if no use of system assets are required, no incentive will be provided.

3.15. As for DPCR4, we will calculate the annual incentive based on the MW connected and then apply the cap and collar at the end of the DPCR5 period.

3.16. Further explanation of the cap and collar mechanism is contained in Chapter 5 of the Financial methodologies document.

Operation and maintenance (O&M) costs

3.17. We propose to retain the O&M allowance at £1/kW/year to cover the ongoing O&M costs of the DG connection assets (including sole-use).

High cost projects

3.18. In DPCR4 we identified that there may be certain projects which, because they are of such unusually high cost or have requirements significantly in excess of the DNOs' design standards, are not adequately addressed within the parameters of the main DG incentive scheme. We therefore set a high cost project threshold consisting of any projects with direct reinforcement costs in excess of £200/kW, where the generator seeking connection (and giving rise to the costs) would fund the required additional investment through connection charges.

3.19. We consider this threshold to still be appropriate for DPCR5, especially given the uncertainty around the DG forecasts, and therefore propose to maintain the 'high cost' project threshold at £200/kW.

DPCR4 and definition of relevant DG

3.20. We have applied the DPCR4 cap and collar (including a cap of £0 where no use of system connection assets have been required to connect DG over DPCR4) to the 15 year revenue streams for DG connected during DPCR4. We will set the resulting capped/collared revenue streams (including one off repayments where the DNO has already received too much incentive during DPCR4), and adding in the O&M allowance over the period, as allowances in the calculation of the DPCR5 allowed generation revenues. These allowances are shown in Table 3.2 below:

Table 3.2 - Allowances for DPCR4 capped/collared DG incentive payment and pass-through revenue, plus O&M allowances

£m	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
CN West	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CN East	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
ENW	-0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CE NEDL	-0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CE YEDL	-0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2
WPD S Wales	-0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
WPD S West	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EDFE LPN	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EDFE SPN	-0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EDFE EPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SP Distribution	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
SP Manweb	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
SSE Hydro	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
SSE Southern	-0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total	1.8	4.2	4.2	4.2	4.2	4.2	4.2	4.2

£m	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
CN West	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CN East	0.6	0.6	0.6	0.6	0.6	0.5	0.4
ENW	0.2	0.2	0.2	0.2	0.2	0.2	0.1
CE NEDL	0.2	0.2	0.2	0.2	0.2	0.1	0.0
CE YEDL	0.2	0.2	0.2	0.2	0.2	0.2	0.1
WPD S Wales	0.1	0.1	0.1	0.1	0.1	0.1	0.0
WPD S West	0.1	0.1	0.1	0.1	0.0	0.0	0.0
EDFE LPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EDFE SPN	0.1	0.1	0.1	0.1	0.1	0.1	0.0
EDFE EPN	0.2	0.2	0.2	0.2	0.2	0.1	0.1
SP Distribution	1.0	1.0	1.0	1.0	0.9	0.7	0.4
SP Manweb	0.7	0.7	0.7	0.7	0.6	0.5	0.2
SSE Hydro	0.5	0.5	0.5	0.5	0.5	0.5	0.4
SSE Southern	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Total	4.2	4.2	4.2	4.1	3.8	3.1	1.8

3.21. Therefore in DPCR5 the DG incentive and O&M allowance will only be calculated based on the MW of DG connecting after 1 April 2010. This means that the definition of relevant DG (the DG that is included within the incentive framework), which currently refers to DG connected after 1 April 2005, will be changed to refer to connection after 1 April 2010.

Recovery of allowed revenue

3.22. In DPCR4 the total revenue that a DNO can recover under the DG incentive scheme has been recovered from those generators connected to the distribution system after 1 April 2005.

3.23. Chapter 4 describes our proposals for the eligibility of generation connected pre-2005 to use of system charges in DPCR5.

3.24. In November, we approved the DNOs' new common distribution charging methodology to apply to customers connected at lower voltages[13]. These new arrangements will come into effect on 1 April 2010, at the same time as these Final Proposals if our proposals have been accepted by the DNOs. The new DG charging arrangements, and those that are scheduled to come into effect for high voltage customers on 1 April 2011 (WPD have already implemented a methodology at higher voltages), mean it will no longer be necessary for us to place a restriction within the price control on the proportion of allowed revenues that are recovered from demand customers on the one hand and generation customers on the other, as the charging methodologies will be cost reflective.

3.25. For DPCR5 we intend to remove this restriction so that the total revenue that a DNO can recover under the DG incentive scheme can be combined with the allowed demand revenue to create a single charging pot. This combined allowed revenue will be allocated amongst the different categories of customers using the new charging methodologies.

3.26. Given that the new charging arrangements, and hence cost reflective charges, for high voltage customers will not be in place at 1 April 2010 for the majority of DNOs, we expect the DNOs to submit modifications to their existing high voltage charging methodologies to utilise the single pot and, to the extent possible, provide for cost reflective distribution of revenues.

Incentives for ongoing network access

3.27. In DPCR4 we established a rebate of £0.002/kW/hour to be paid to generators connected at 'high voltage' (HV) or above in the instances where the DNO has failed to provide access to the network. This was to provide DNOs with appropriate incentives to deliver reliable network access (availability) to generators once they have been connected.

3.28. We intend to maintain this incentive at the same amount for DPCR5.

[13] Electricity distribution structure of charges: the common distribution charging methodology at lower voltages, Ref: 140/09, available at http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=533&refer=Networks/ElecDist/Policy/DistChrgs

3.29. As in DPCR4, this is not intended to provide compensation for economic loss. It is also only expected to apply in circumstances where the generator has agreed on a standard connection.

4. Use of system charging to pre-2005 connected distributed generation

Chapter summary

This chapter sets out our policy proposals for use of system charging to distributed generation (DG) connected before 1 April 2005. We propose that the blanket exemption from use of system charges should end on 31 March 2010 and that DNOs must demonstrate that they are not discriminating unduly between different DG customers.

Purpose

4.1. Our proposal aims to ensure that the charging framework developed by DNOs does not have the effect of unduly discriminating against (or in favour of) pre-2005 connected DG,[14] and to prompt DNOs to rectify any arrangement that raises such concerns.

4.2. As we move to a low carbon future DNOs will need to have more flexible networks, which will need to be more actively managed and responsive to changing power flows. For this to work properly DNOs need to move to an arrangement where the use of system charges to all DG reflects the costs that they impose (or avoid) by connecting to and using the network. This will encourage DG to respond in a way that helps the DNO to develop their networks efficiently.

Developments since Initial Proposals

4.3. In DPCR4 we stated that DNOs should recover allowed DG revenue from those generators connecting to the distribution system after 1 April 2005. We also made it clear that the exemption for pre-2005 connected DG from ongoing use of system charges (GDUoS) until 2010 would be subject to review.

4.4. We set out our proposals for charging pre-2005 connected DG in Initial Proposals. The consultation responses were mixed in their views on our proposals with the majority of DNOs agreeing with the removal of the blanket exemption from GDUoS, although several raised concerns around the timing of the implementation and calculation of the charges. Three respondents, including one DNO, disagreed

[14] Unless specified otherwise pre-2005 connected DG includes DG that connected or received a connection offer before 1 April 2005. Pre-2005 connected DG was charged under a deep connection policy, where the upfront connection charge included all the network costs for the lifetime of the connection (including the full cost of reinforcement and capitalised operation and maintenance, O&M). On 1 April 2005 a 'shallowish' connection policy was implemented, so that the connecting DG pays the full cost of sole-use connection assets and a proportion (based on requirements) of shared-use reinforcements. The remaining proportion of reinforcement costs and O&M is recovered through use of system charges, currently levied on DG connected post-April 2005.

with the proposals, arguing that having different charging arrangements for pre- and post-2005 connected DG is not discriminatory.

4.5. We stated in Initial Proposals that we had asked DNOs to detail the contractual terms for the DG operating on their system, and to provide evidence that these arrangements do not discriminate between different classes of DG. We received responses from the DNOs to our information request which were of varying quality, and in a number of cases the evidence provided by the DNOs was not, in our view, sufficient or adequate to demonstrate that they are not discriminating unduly between different DG parties based on when they connected.

4.6. We set out these proposals regarding compensation at Initial Proposals. No DNO has presented a case for changes to its RAV to include the value of refunds given to DG.

Details of our proposals

4.7. We have carefully considered the responses to Initial Proposals and we still consider that the existing blanket exemption from GDUoS charges for pre-2005 connected DG should end on 31 March 2010.

4.8. We recognise that there may be cases where DG owners have paid for reinforcement of the network (deep connection charges) and the reasonable life of this original investment has not expired. In this case, it may not be unduly discriminatory for there to be a period over which the DNO does not levy annual use of system charges on the DG. We expect the DNOs to justify why charges should not apply on a case-by-case basis and to demonstrate with credible evidence that they are offering non-discriminatory terms.

4.9. Even in circumstances where we agree it is not unduly discriminatory for the DG to be exempt from paying use of system charges, we think that it would be administratively simpler for Ofgem, the DNOs and all DG, if all the DG paid use of system charges on the same basis using a common methodology. This will remove any administrative burden (and the associated costs) on DNOs, DG and Ofgem to monitor and police the arrangements to ensure that DNOs are meeting their legal obligations not to discriminate unduly. We would like to see DNOs explore whether they can refund the DG for the relevant proportion of their connection charges in return for paying use of system charges which provide a better price signal to DG about the impact that they are having on network costs. Where DNOs are successful in negotiating such changes to the contractual arrangements, and can demonstrate that it was appropriate to provide the DG with a refund on the connection charge, we propose to allow them to log up the compensation. At DPCR6 we will undertake an efficiency assessment in order to calculate the compensation allowance. We will then provide funding for this allowance through:

- an adjustment to their regulatory asset value (RAV) to reflect the remaining life of the assets, and

- revenues to compensate for depreciation and return accrued over DPCR5 and the cost of the delay in their payment.

4.10. Where the DNO decides not to levy annual use of system charges on the DG they must also demonstrate how they intend to manage the arrangements, and justify how long the arrangements will last, to demonstrate that they are meeting their legal obligations not to discriminate unduly.

4.11. We expect that some pre-2005 connected embedded generators will volunteer to transfer to the new charging arrangements because the benefits that they provide to the system will be better recognised under the more cost-reflective charging framework being developed as part of the Structure of Charges[15] project.

4.12. We recognise the concerns raised in responses to Initial Proposals regarding the timing of this obligation. We note that while, for DG connected at lower voltages (HV/LV), common and more cost reflective charging arrangements will come into effect from 1 April 2010, this will only be achieved in most DNO areas from 1 April 2011 for DG connected at higher voltages (EHV). We understand the concern raised by DNOs about applying charges to DG connected at EHV ahead of the new charging methodologies coming into place, and recognise that the level of these charges could change significantly with the new methodology. However, it is for the DNOs to make the case if they consider that alternative arrangements should apply, and it is for each DNO to satisfy itself that the arrangements they have in place from 1 April 2010 are non-discriminatory. If any DNO cannot do this, it carries a risk that we find it in breach of relevant statutory and licence obligations and this could lead to financial penalties and enforcement action.

4.13. As stated previously, we expect DNOs to be able to demonstrate that they are not discriminating unduly between pre- and post-2005 connected DG. The evidence provided by the DNOs to date has not satisfied us that they are compliant with this requirement. We will therefore be following up on the previous information request with more targeted and specific questions after Final Proposals.

4.14. If a DNO does not have a written contract with any DG plant, we expect the DNOs to introduce written terms as soon as practicable so that all DG schemes have clear, enforceable contracts in place. This will enable the DNOs to operate and develop their networks efficiently. For example, contractual certainty with existing customers is essential when a DNO is considering the most efficient options for connection requests by new customers or when considering options for active network management.

4.15. We also think there is scope for the Distribution and Connection Use of System Agreement (DCUSA) to be the vehicle for the development of new standardised contracts between DNOs and DG, based on national terms of connection and use of

[15] For more detail on the charging methodologies developed and being developed under the project, see the relevant structure of charges documents on the Distribution Charges area of our website at
http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgs/Pages/DistChrgs.aspx

system and clearly defined access rights. This would significantly increase transparency in the terms and conditions for all DG across the country.

5. Transmission connection point charges

Chapter summary

This chapter details our proposed hybrid framework for the regulatory treatment of transmission connection point charges. It sets out the proposed pass-through elements of the charges and the scope of the incentive mechanism.

In previous DPCR5 documents these charges have been referred to as transmission exit charges.[16]

Purpose of the incentive

5.1. DNOs currently pay National Grid (in its role as GB System Operator, GBSO) for the financing and operating costs of the assets that connect the distribution network to the transmission network (at transmission connection points). DNOs fully recover these costs from customers via pass-through arrangements in DPCR4.

5.2. With the expected increase in generation connecting to the distribution network and the increasing potential for demand side management there will be more opportunities for DNOs to explore innovative commercial contracts to help manage these costs. The purpose of our DPCR5 proposals is to ensure that DNOs engage effectively with Transmission Licensees (TLs) so that the most efficient engineering solutions across the transmission and distribution network are built and developed as the transmission and distribution systems evolve.

5.3. Our proposed hybrid framework is intended to incentivise the DNOs to manage to an efficient level those transmission connection point costs that they are in a position to influence. The transmission connection point costs over which DNOs have limited control will continue to be recovered via a pass-through arrangement.

Developments since Initial Proposals

5.4. We set out our proposed hybrid incentive framework in detail in Initial Proposals. Whilst we received responses supporting our proposals from two industry stakeholders, all DNOs voiced their objections to the scheme. The DNOs consider that they have limited control over these costs, that these costs are already regulated (under the transmission price control) and that there is no evidence to suggest distribution networks have been developed uneconomically as a result of passing through these costs.

[16] In the rest of this document we refer to these charges as transmission connection point charges, in order to provide consistency with the licence drafting (these costs are referred to as Transmission connection point charges in the current special licence condition A1.) In previous discussions and other DPCR5 documents we referred to these charges as transmission exit charges, but we are now using this term to refer only to the incentivised elements.

5.5. As we stated in Initial Proposals, whilst we agree that the transmission price control provides an incentive for the TL to choose the most economic solution at the transmission level, we are not convinced that under a pass-through regime the DNOs are adequately incentivised to bring forward a potentially cheaper alternative solution at the distribution level. DNOs are incentivised to reduce capital and operating expenditure on their own networks below the levels used to set their allowed revenues. This may reduce their incentive to propose distribution solutions as an alternative to the transmission solutions identified by the TL. Consumers would benefit from a framework where there is an incentive on all parties to implement the lowest cost solution available (across all voltage levels).

5.6. Since Initial Proposals we have analysed the DNOs' forecasts of and justifications for transmission connection point charges related to assets installed during DPCR5. We have accepted the DNOs' forecasts, as reflected in the allowances detailed in Table 5.2 below. We recognise that this is a new approach, and expect to use the information gathered over DPCR5 to be able to subject the DPCR6 forecasts to greater scrutiny. We also expect the information to enable us to develop a refined (and stronger) incentive scheme for DPCR6.

5.7. In Initial Proposals we stated our desire to develop an output measure for transmission connection points, similar to the Load Index for general reinforcements. However, after discussions with the DNOs we have concluded that it is not possible to develop a reliable measure at this point in time. We will work together with the DNOs to develop output measures for transmission connection points over DPCR5.

Details of the incentive

5.8. We are proposing to introduce a hybrid incentive framework for transmission connection point charges. DNOs will be allowed to pass-through those elements of connection point charges that are outside their control. The defined elements that a DNO can influence will be incentivised against an ex ante allowance. The DNOs will be allowed to recover an amount of revenue equal to the actual annual expenditure for incentivised transmission connection point charges and an incentive strength of 20 per cent applied to the difference between the allowance for that year and the actual expenditure. This means that a DNO will keep 20 per cent of any under spends and lose 20 per cent of any over spends.

5.9. The different cost items are detailed in Table 5.1.

Table 5.1 – Regulatory treatment of transmission connection point charges during DPCR5

Transmission connection point charges that will be subject to full pass-through:	**Transmission connection point charges that will be subject to the incentive:**
Costs arising from: ▪ All assets installed before DPCR5 ▪ Grid Supply Point (GSP)	Costs arising from: ▪ GSP reinforcement during DPCR5, incurred as a result of DNO

Transmission connection point charges that will be subject to full pass-through:	**Transmission connection point charges that will be subject to the incentive:**
refurbishment during DPCR5 ▪ Any other work not incurred as a result of DNO requirements	requirement ▪ New GSP during DPCR5, incurred as a result of DNO requirement

5.10. The ex ante allowances for each DNO are presented in Table 5.2 below.

Table 5.2 - Allowances by DNO for incentivised transmission connection point charges

DNO £m	DPCR5 forecast		Final Proposals
	Total transmission connection point charges	Incentivised connection point charges	Allowance for incentivised connection point charges
CN WEST	63.4	8.5	8.5
CN EAST	59.6	22.0	22.0
ENW	66.6	3.1	3.1
CE NEDL	35.2	9.4	9.4
CE YEDL	51.7	0.1	0.1
WPD S Wales	34.8	1.5	1.5
WPD S West	34.8	1.8	1.8
EDFE LPN	136.7	26.1	26.1
EDFE SPN	65.9	16.1	16.1
EDFE EPN	109.1	16.5	16.5
SP Distribution	60.9	1.4	1.4
SP Manweb	46.8	0.3	0.3
SSE Hydro	59.7	11.8	11.8
SSE Southern	62.3	0.0	0.0
Total	**887.5**	**118.7**	**118.7**

5.11. DNOs must still comply with their statutory duty to maintain and develop an efficient, economic and coordinated distribution system. We will also look for further evidence that over DPCR5 they have proactively engaged with the TLs in respect of items of cost that are treated as cost pass-through.

Appendices to be included

5.12. We have included an example of how the incentive will be calculated in Chapter 6 of the Financial methodologies document.

6. Losses incentive

Chapter summary

This chapter sets out our proposals for incentivising the DNOs to manage an efficient level of losses on their networks. We propose to retain an output based incentive on losses, but to fund explicit investments to reduce losses where justified. We also set out our proposals to address issues associated with the volatility of settlement data.

Purpose of the incentive

6.1. Electricity losses on the distribution networks are a significant source of greenhouse gas (GHG) emissions, with distribution losses representing approximately 1.5 per cent of total GB GHG emissions. We need to have a losses incentive to drive the DNOs to achieve an efficient level of losses on their distribution networks by making appropriate investments; optimising networks operation; influencing users and working with third parties (such as suppliers) to improve data accuracy and reduce theft.

Developments since Initial Proposals

6.2. In the Initial Proposals document we consulted on our detailed proposals for the losses incentive.

6.3. There were concerns raised in the responses to Initial Proposals that the proposed common reporting methodology did not include the DPCR4 exclusion of adverse losses caused by distributed generation (DG). Whilst we wanted to encourage the DNOs to signal to DG the impact it has on losses, we recognise that this exclusion mainly targets large, remote generation that does not have options around where it is located. We therefore are proposing to subtract losses caused by DG with a loss adjustment factor less than 0.997 from the losses calculation. This means the current DPCR4 mechanism will be retained.

6.4. In Initial Proposals we raised two options for setting targets. These options recognised that we would not have a complete set of final DPCR4 settlement data prior to Final Proposals. We considered setting targets based on the data available (which we considered to be adequate) and either using those targets for DPCR5 or updating them during DPCR5 once the final settlement data for all years had been received. Out of two responses, one favoured the latter option whilst the second proposed waiting until the final settlement data had been received, and calculating the targets in DPCR5. Following further discussions with the DNOs we propose to wait until DPCR5 and calculate targets based on the latest available data. Since we have introduced a reporting lag there will be time to calculate the targets in advance of the DNOs reporting their first year of losses. We propose to use 'Run Final' (RF)[17]

[17] The last required timetabled reconciliation settlement run (of the balancing and imbalance settlement of the wholesale electricity market) which occurs 14 months after consumption.

settlement data for the final year of DPCR4 (versus 'Dispute Final' (DF)[18] which will be used for the first four years of DPCR4). RF data is received earlier than DF data, and we have agreed with the majority of DNOs that this is an acceptable compromise. Where DF data is not available, we will use RF data in the calculation.

6.5. In Initial Proposals we proposed to apply a revenue cap and collar to the cumulative losses incentive revenues earned through the losses rolling retention mechanism on the total DPCR5 loss performance. In feedback to Initial Proposals, respondents expressed concern that the DNOs could still be exposed to significant annual cash flow volatility, and that the proposed cap and collar still exposed them to unacceptable levels of risk.

6.6. In subsequent Environment Working Group discussions we agreed to consider the DNOs' desire to limit annual volatility and therefore developed an annual smoothing mechanism, described in section 6.26. This will work in conjunction with the overall cap and collar on the cumulative losses incentive revenues earned.

6.7. We also stated in Initial Proposals that we would review the overall losses incentive cap and collar values as part of our holistic approach to return on regulatory equity (RORE). In our RORE analysis we have endeavoured to balance the weight of the losses incentive in relation to the other incentives. The cap and collar described in section 6.23 below is now set based on a constant RORE exposure across all DNOs. This has, in general, reduced the DNOs' exposure in comparison to the cap and collar proposed in Initial Proposals. We think that this is a reasonable proposal - it will not reduce the DNOs' incentive to manage the losses on their networks, but will protect them from unanticipated or uncontrollable fluctuations in losses reporting.

Details of the incentive

6.8. The key details of our proposals for the losses incentive for DPCR5 are listed in Table 6.1 below, and compared against those currently in place for DPCR4.

Table 6.1 - Comparison of the losses incentives for DPCR4 and DPCR5

	DPCR4	DPCR5
Reporting losses	DNO's own method, as in use at 1 April 2002 Report losses in year incurred	Common method, with no provision accounts or adjustments Report losses with 2 year lag
Incentive value	£48/MWh pre-tax	£60/MWh pre-tax
Target setting	Fixed loss percentage Average of previous 10 years' performance	Fixed loss percentage Average of DPCR4 performance (using common reporting method)
Roller	5 year roller	5 year roller

[18] The post-final settlement run, which is therefore received later than Run Final (RF data).

	DPCR4	DPCR5
Cap and collar	None	Annual smoothing Cap and collar on total DPCR5 incentive amount
Low loss equipment	No explicit allowance	Ex ante allowance where justified

6.9. We propose to maintain an output based losses incentive for DPCR5, with modifications to address the specific weaknesses we have identified. In addition we propose to provide DNOs with direct recognition of low loss investment whilst ensuring customers only pay for actual loss reductions achieved. Other proposed changes include: improved target setting and a common methodology for reporting losses; lagging the reporting until settlement data is finalised; and applying a cap and collar and annual smoothing to the incentive outturn in order to mitigate the quality and volatility of the settlement data on which the current output incentive is based.

Common reporting methodology and lag

6.10. Our proposal for DPCR5 is that all DNOs report losses using the same basic method. The method will be based on the principle of reporting losses calculated using unadjusted settlement data for the regulatory year. This data will be reported with a lag of two years so that the RF settlement data can be included and allocated to the year in which it was incurred.

6.11. This means that in reporting losses, DNOs will not use provision accounts or adjust settlement data in any way other than the specific calculations we have detailed.

6.12. We propose that the DNOs calculate losses from the total units entering and exiting their network through different connection points. DNOs will be required to report the units according to the type of connection point, as detailed in Table 6.2.

Table 6.2 – Categories of electricity entering and exiting a DNO's network[19]

Units entering via:	Units exiting via:
▪ grid supply point, ▪ DNO:DNO interconnection, ▪ IDNO:DNO boundary, ▪ licensed embedded distributed generator, BMU, ▪ unlicensed embedded distributed generator, HH or NHH.	▪ grid supply point, ▪ DNO:DNO interconnection, ▪ IDNO:DNO boundary, ▪ licensed embedded distributed generator (electricity usage), BMU, ▪ demand customer, HH or NHH.

6.13. There are multiple data sources available from the settlement system, providing different views, aggregations and combinations of data. We will set out in

[19] We have simplified the descriptions of the connection points to be understood by the non technical user. The licence condition will specify the technical equivalent.

the Regulatory Instructions and Guidance the data flows to be used and calculations to be performed. We propose to require the DNOs to submit a detailed description to Ofgem confirming what data inputs they will use and what manipulation and calculations they will undertake. The information provided by DNOs will be subject to audit. As in DPCR4 the DNOs will have to obtain approval from Ofgem before changing any part of their losses reporting.

Targets

6.14. We propose to set DPCR5 losses targets to reflect each DNO's losses performance over DPCR4. We will base the targets on the average performance for each DNO, but adjust the targets for the energy used in substations that was reported as losses in DPCR4 (see paragraphs 6.28 to 6.30 below).

6.15. In Initial Proposals, we stated that the targets would incorporate the agreed loss reductions generated from low loss expenditure allowed in the DPCR5 settlement. However, since these loss reductions are not constant over DPCR5 it would not be possible to set a constant target. We therefore propose that the DPCR5 losses targets will not be adjusted for allowed discretionary low loss expenditure. Instead, we will adjust the performance in the final year of DPCR5 based on the forecast loss reductions from allowed discretionary low loss expenditure (the allowed expenditure and loss reductions are included in Appendix 5 of the Allowed Revenue - Cost assessment appendix. This change in methodology is financially neutral to the companies.

6.16. As described above we propose that the DNOs report losses according to a common methodology for DPCR5, and we will therefore base the targets on historical losses calculated according to the same methodology. This means that we will calculate the targets during DPCR5, once the historical data is available. In order to provide the DNOs with visibility of the targets in advance of the reporting of the first year of losses for DPCR5, we propose to base the targets on DF settlement data for the first four years of DPCR4 and RF data for the final year. Where DF data is not available, we will use RF data in the calculation.

6.17. The formula and data we propose to use to calculate the targets are set out in Chapter 4 of the Financial methodologies document.

Incentive value and rolling retention mechanism

6.18. As discussed in previous consultations, we propose to factor the shadow price of carbon[20] (SPC) into the losses incentive value. We have therefore calculated the losses incentive as the wholesale price of electricity less the EU Emissions Trading Scheme (ETS) cost of carbon (which is factored into the wholesale price) plus the SPC. In July 2009 the government published the Carbon Appraisal in UK Policy

[20] As set by the Department for Environment, Food and Rural Affairs (Defra).

Appraisal: A revised Approach[21] with revised carbon prices. We have used the 'Central value' of the 'Traded carbon price' in our analysis.

6.19. There has been significant volatility in the cost of wholesale electricity, so we propose to broadly base the incentive on a historical average of the wholesale price and EU ETS cost of carbon for 2009.

6.20. The proposed loss incentive value is £60/MWh (pre-tax, 2010-11 prices).

6.21. The losses rolling retention mechanism was introduced in DPCR4 to ensure that DNOs obtain an appropriate share of the benefits from loss reductions. Sustainable loss reduction initiatives can produce loss reductions over many years, and hence it was considered appropriate that the DNO received the benefits of loss reductions for more than one year. In addition, the mechanism ensures that a loss reduction achieved in the first year of the price control receives the same total benefit as a loss reduction achieved in the final year. This encourages DNOs to maintain the focus on losses throughout the price control period. We therefore consider that a rolling retention mechanism is still an appropriate method of ensuring that sustainable loss reductions initiatives face the same incentives irrespective of when they are undertaken within the period. In calculating the retention of benefits under the rolling retention mechanism we will factor in the retention of benefits under the losses targets for DPCR6. This is described in more detail in Chapter 4 of the Financial methodologies document.

6.22. The DPCR4 rolling retention mechanism has caused some concern amongst the DNOs. These concerns focus on the impacts of settlement volatility and a lack of common understanding about how the mechanism would be implemented post DPCR4. This is described further, along with our proposed treatment of the DPCR4 losses rolling retention mechanism, in Chapter 7.

Cap and collar

6.23. In order to reduce any outstanding risk to both the DNOs and consumers we propose to apply a cap and collar to the losses incentive. This is consistent with our overall approach for incentives in DPCR5.

6.24. We propose to apply a cap and collar to the total revenue earned through the losses incentive (including the benefits earned under the losses rolling retention mechanism described in paragraph 6.21) on the total DPCR5 loss performance. We also propose to apply an annual smoothing mechanism whereby the excess incentive outside the range set by the upper and lower threshold is carried forward to the next year. This will smooth the timings of incentive revenues but will not impact the cap and collar on the total DPCR5 losses incentive.

21 http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=What%20we%20do%5CA%20low%20carbon%20UK%5CCarbon%20Valuation%5C1_20090715105804_e_@@_CarbonValuationinUKPolicyAppraisal.pdf&filetype=4

6.25. We have reviewed the cap and collar values that we proposed in Initial Proposals as part of our holistic approach to RORE. We concluded that an exposure of plus or minus 97 basis points pre-tax (70 basis points post-tax) of RORE was appropriate for each DNO and have calculated the cap and collar on this basis. The resulting caps and collars from this analysis are presented in Table 6.3 below.

Table 6.3 - Pre-tax revenue caps and collars by DNO

	Cap £m	Collar £m
CN West	25.8	-25.8
CN East	25.3	-25.3
ENW	22.6	-22.6
CE NEDL	15.5	-15.5
CE YEDL	20.1	-20.1
WPD S Wales	11.7	-11.7
WPD S West	16.8	-16.8
EDF LPN	22.0	-22.0
EDF SPN	19.8	-19.8
EDF EPN	31.4	-31.4
SP Distribution	22.3	-22.3
SP Manweb	20.9	-20.9
SSE Hydro	14.4	-14.4
SSE Southern	29.9	-29.9

6.26. The annual thresholds have been calculated so that if a DNO's loss incentive exceeded the upper threshold in every year of DPCR5 the total losses incentive they would receive would equal the overall cap amount. This is the same for the lower threshold and the collar. The DNO thresholds are set out in Table 6.4 below.

Table 6.4 - Pre-tax annual thresholds by DNO

	Annual upper threshold £m	Annual lower threshold £m
CN West	5.2	-5.2
CN East	5.1	-5.1
ENW	4.5	-4.5
CE NEDL	3.1	-3.1
CE YEDL	4.0	-4.0
WPD S Wales	2.3	-2.3
WPD S West	3.4	-3.4
EDF LPN	4.4	-4.4
EDF SPN	4.0	-4.0
EDF EPN	6.3	-6.3
SP Distribution	4.5	-4.5
SP Manweb	4.2	-4.2
SSE Hydro	2.9	-2.9
SSE Southern	6.0	-6.0

6.27. The cap and collar and annual thresholds are explained in more detail, with an example, in Chapter 4 of the Financial methodologies document.

Substation energy usage

6.28. At present there is inconsistency between DNOs in their methods for dealing with the electricity consumed within their substations for heating, lighting and ancillary supplies. Electricity used at substations is unmetered in the majority of cases. Some DNOs pay a supplier for this unmetered consumption whilst others include it in their calculation of losses.

6.29. We consider that a common treatment should be adopted, and that DNOs should register the substation usage with a supplier so that they pay for the electricity consumed. Where the substation is unmetered, the DNO should treat it in the same way as any other unmetered supply. We have therefore included a cost allowance for substation electricity in the DPCR5 settlement. It is described in more detail in Appendix 4 of the Allowed revenue - Cost assessment appendix.

6.30. Under this common treatment of substation energy, the DNOs that treated substation energy usage as losses in DPCR4 will see their losses reduce in DPCR5. We will reduce those DNOs' targets by this same factor. This is explained further in Chapter 4 of the Financial methodologies document.

Further proposals for improvement

6.31. We want to encourage DNOs to find ways to improve their measurement of losses. If any DNO is successful in finding a better way of measuring losses on their network (for example by installing more metering equipment on their network), we will remove the cap on rewards and may tighten the collar.

6.32. We also expect DNOs to be proactive in targeting electricity theft, and to work with other industry participants to identify ways to reduce and manage theft, such as introducing modifications to the relevant industry codes and agreements.

7. Treatment of DPCR4 losses rolling retention mechanism

Chapter summary

This chapter sets out our methodology for closing out payments under the DPCR4 losses incentive and implementing the losses incentive rolling retention mechanism as set out in the DPCR4 Final Proposals.

Purpose

7.1. The losses incentive in DPCR4 included a rolling retention mechanism to encourage loss reduction initiatives to be undertaken at any time in the price control period by guaranteeing rewards (or penalties) for a subsequent five year period.

7.2. This chapter describes how we intend to calculate, for each DNO, the total losses incentive amount arising from DPCR4 losses performance, and therefore the remaining amounts owed to/by the DNOs.

7.3. In Initial Proposals we recognised the uncertainty surrounding the remaining amounts under the DPCR4 losses incentive and invited proposals for a buy-out option that could be demonstrated to be equitable to consumers. We have decided not to apply a buy-out option and explain the reasoning behind this conclusion below.

Developments since Initial Proposals

7.4. In Initial Proposals we proposed to expose the absolute losses performance to the losses rolling retention mechanism (LRRM) as set out in the DPCR4 Final Proposals[22].

7.5. In DPCR4 the incentive mechanism was created so that the LRRM retains each year's incentive amount earned on the incremental change in outturn losses for five years. In discussions with the DNOs we have explored the algebra behind the LRRM and have explained that the LRRM equates to five times the final year losses performance against the target. We consider this property to be appropriate as the purpose of the incentive is to reward sustainable changes in losses, and therefore the final year should reflect the cumulative efforts over the entire price control period.

7.6. Some DNOs disagreed with our interpretation of the DPCR4 Final Proposals. They argued that the DPCR4 intent was that the 2009-10 value for losses would be calculated as the average of the losses reported in the first four years of DPCR4. The DNOs based their view on the example contained in Appendix 1 of the DPCR4 Final

[22] Electricity Distribution Price Control Review, Final Proposals, 265/04; available for download from http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR4/Documents1/8944-26504.pdf

Proposals which used a calculated figure for the outturn losses in 2009-10 to derive the losses rolling retention amount.

7.7. Since Initial Proposals we have analysed the DPCR4 Final Proposals Appendix 1 in some detail. It is clear to us that the intention in the DPCR4 Final Proposals was to use the average of the losses target for the DPCR5 period as the calculated figure for the fifth year of the DPCR4 losses[23]. This means that the LRRM would be determined by five times the difference between the DPCR4 and DPCR5 targets. This was in order to make sure that there was no double counting of the benefits (losses) received by the DNO through the LRRM and under the targets set for DPCR5.

7.8. For example, if a DNO finishes the DPCR4 period with final year losses below the DPCR5 target, it will benefit from a starting position in DPCR5 that allows it to earn under the DPCR5 losses incentive without making further efforts to control losses. If the LRRM allowed the DNO to keep five years worth of its performance in the last year then this would involve a double benefit to the DNO. Similarly, if a DNO's losses increased towards the end of DPCR4 it may start the DPCR5 period with a penalty under the new incentive. If the roller carried forward the DNO's penalty in the final year of the DPCR4 incentive then the DNO would be hit twice: once by the LRRM and again by the need to make efforts to meet the new target below its starting losses position.

7.9. We consider that it is appropriate to apply the LRRM as intended in the DPCR4 Final Proposals, so that there is no double counting of the benefit/penalty that the DNO experiences through the LRRM and the benefit/penalty that might arise as a result of the new losses target for DPCR5. As such, total gains or losses for each DNO will equal five times the final losses outturn. We will need to make a number of adjustments and calculations to bring this decision into effect. These are set out in more detail below.

Details of our proposal

Close out of DPCR4 losses incentive

7.10. In closing out the DPCR4 losses incentive we intend to apply the LRRM (as described above) and to take steps to ensure that there are no windfall gains or losses to the DNOs arising from:

- settlement data corrections and provision accounting,
- changes in reporting methodology, and
- adjustments to the DPCR5 targets.

[23] Paragraph A1.38 in the Final Proposals Appendix 1 states that the approach takes account of the interaction of benefits beyond 2010 and the level of targets beyond 2010. The intent to use the average DPCR5 targets is reflected in the table A1.2 where the row containing the calculated figure is labelled "average target for DPCR5" and is confirmed by algebra contained in the example spreadsheet that was issued by Ofgem to the Incentives Working Group on 11th November 2004.

Adjustments arising from settlement corrections and provision accounts

7.11. As we stated in Initial Proposals, adjustments to DPCR4 reported losses will be required in order to ensure that all DNOs receive the losses incentive based on their absolute losses performance over DPCR4 and ultimately, that rewards/penalties under the DPCR4 scheme are not influenced by the different reporting bases that companies used.

7.12. The settlement data from which losses are calculated is likely to be revised after the end of the DPCR4 period. We will therefore require the DNOs to report corrections to the DPCR4 losses that take place after the end of DPCR4, so that the final year reported losses can be revised accordingly.

7.13. A number of companies have used provision accounts in arriving at reported losses during the DPCR4 period. Where this is the case we will require the DNO to demonstrate to us that, as final settlement data becomes available, units in provision accounts have been allocated to their appropriate years, and the provision accounts closed out. DNOs will need to disclose what proportion of their reported losses is due to provision account adjustments and therefore what the actual losses in the final year were.

7.14. However, the final year losses reported by the DNOs will probably include corrections to the settlement data for prior years. In order to ensure the LRRM works correctly, the losses figure that we will adjust (according to paragraphs 7.12 and 7.13 above) will be the losses experienced in the final year, excluding any corrections to prior years and prior to any provision account adjustments.

Adjustment arising from the new methodology

7.15. As set out in Chapter 6, for the DPCR5 period we will require DNOs to apply a new common reporting methodology for losses, based on final settlement data and using defined data flows to calculate units in and units out. This means there could be a step change between losses reported under the methodology a DNO used in DPCR4, and those reported according to the DPCR5 methodology. The DPCR5 targets will be set based on each DNO's DPCR4 losses performance, as calculated according to the new methodology.

7.16. DNOs should only be rewarded based on actual changes in performance. We therefore need to make an adjustment to the LRRM so that DNOs are not unduly penalised or rewarded for the change in the losses reporting methodology between DPCR4 and DPCR5. We will therefore adjust the LRRM by five times the difference between:

- the last year's performance in DPCR4 as calculated using the new common reporting methodology in DPCR5, and
- the last year's performance in DPCR4 as reported according to the DPCR4 methodology (using final settlement data for the losses experienced in the final

year, excluding any corrections to prior years, and accounting for all units in the provision account, as described above).

7.17. This means that where a DNO's losses calculated according to the new reporting methodology at the start of DPCR5 are lower than when reported according to the reporting methods used in DPCR4, the roller amount will be reduced to avoid a windfall gain to the DNO, and vice versa.

Adjustment arising from the DPCR5 targets

7.18. It should be noted that, as explained in Chapter 6, we propose to reduce DPCR5 targets for those DNOs that treated substation electricity usage as losses in DPCR4, since the DNOs' losses will reduce by this amount in DPCR5. However, the losses for the final year of DPCR4 will still include the substation energy, and it is this value that should be reflected in the LRRM. If the LRRM is calculated as five times the difference between the DPCR4 and DPCR5 targets the DNOs will be over-rewarded by a value of five times the DPCR5 target adjustment for substation electricity. Therefore we will add the substation electricity adjustment back into the DPCR5 target for the purposes of the LRRM calculation.

Close out calculation

7.19. As with the calculation of DPCR5 targets, we will only be able to calculate the LRRM in 2011-12 once final settlement data is available.

7.20. We will then calculate the 'close out' amount as the total retained losses incentive less the amount of losses incentive the DNO has already received (due to DPCR4 losses) during DPCR4. Depending on the materiality of these amounts we will consider the appropriate period over which to spread the recovery or payment, taking into account the impact on revenue stability and on DNO cash flows.

7.21. More detail on the calculation of the close out of the DPCR4 losses incentive is included in Chapter 4 of the Financial methodologies document.

Buy-out option

7.22. In Initial Proposals we stated that our view at that time was that it was appropriate to adjust DPCR4 performance for final settlement data and to apply the rolling retention mechanism as considered in the DPCR4 Final Proposals. However, we recognised that this caused uncertainty for DNOs as the value of earnings under the DPCR4 losses incentive would only become known part way through the DPCR5 period, once the final settlement data for the DPCR4 period became available. We therefore considered two options:

- switch off the DPCR4 mechanism, or
- permit DNOs to buy themselves in or out of the DPCR4 mechanism (buy-out option).

7.23. We stated in Initial Proposals that we did not consider switching off the DPCR4 mechanism to be an appropriate response, since the LRRM was clearly identified in the DPCR4 Final Proposals, and DNOs will have invested in low loss equipment and loss reduction initiatives based on the expectation that loss incentive rewards would accrue over a five year period. By switching off the mechanism we would, in effect, penalise the DNOs who reduce their losses in the latter years of DPCR4, since they would receive less total reward.

7.24. However, we stated in Initial Proposals that we were prepared to consider proposals for a buy-out option if DNOs could develop an option that was fair to customers. Three DNOs submitted potential proposals, but only one incorporated a risk sharing mechanism between the DNOs and customers. We also had concerns that DNOs' views of their potential 2009-10 losses might lead to a selection bias in terms of which DNOs would choose to pursue a buy-out option and that this would increase the risk to customers.

7.25. Unfortunately our analysis indicated that in the context of the DPCR4 losses performance to date, the risk sharing proposal still favours the DNOs. We therefore assessed whether it was possible to modify the proposal to provide a more balanced distribution of risk.

7.26. We concluded that even with modifications, any buy-out option will still leave the majority of risk on customers and will be overly complex in order to accommodate the different losses reporting methodologies in use in DPCR4. Any option would not address the selection bias unless the buy-out was imposed on all DNOs.

7.27. We therefore do not intend to offer a buy-out option to the DPCR4 LRRM. We consider that it is appropriate to retain the retention mechanism as this is part of the DPCR4 incentive design and ensures that DNO net earnings under the mechanism reflects performance throughout the five year period.

DPCR4 loss adjustment for Scottish Power (SP)

7.28. In July 2009 the Authority considered a representation by SP for an uplift in SP Distribution's DPCR4 allowed loss percentage (ALP) to correct an error in its original calculation pertaining to extra high voltage (EHV) sites. The Authority agreed that there should be a retrospective adjustment to the ALP[24] and that this would entail applying an uplift of £13.2m to SP Distribution's base revenue in 2010-11. The amount is based on the actual effect of the ALP change for regulatory years 2005-06 to 2008-09 and an estimate of the effect for 2009-10.

7.29. In cash terms, SP have advised us that they have already recovered some of the uplift amount through charges in anticipation of the award implementation. This

[24] Available on Ofgem's website at: http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR4/Documents1/Decision%20Letter_SP%20ALPs_31%20Jul%2009.pdf

means that they will report an 'over-recovery' position in respect of actual versus allowed revenue for 2009-10 which will be offset against the revenue uplift allowed in 2010-11.

7.30. As soon as possible after submission of SP Distribution's revenue return for 2009-10 we will calculate a 'true-up' adjustment for SP Distribution which will:

- add or deduct an appropriate sum to reflect reported losses performance in 2009-10, and
- compensate for any penalty rate of interest applied to SP Distribution's correction factor (brought forward over-recovery) for 2010-11.

7.31. We will apply the DPCR4 LRRM for SP Distribution in the same way as proposed above for the remaining DNOs.

8. Business carbon footprint reporting

Chapter summary

This chapter sets out our policy proposals for the reporting of DNOs' operational greenhouse gas (GHG) emissions. We propose to require the DNOs to submit an annual reporting of their business carbon footprint (BCF), based on the GHG Protocol reporting methodology. We also propose to publish an annual league table of emissions reductions over DPCR5.

Purpose of the obligation

8.1. We propose that DNOs report annually to Ofgem on the total CO_2 equivalent ($kgC0_2e$) emissions of their company (BCF). Ofgem will publish an annual league table of emissions reductions over DPCR5.

8.2. Our proposals will encourage the DNOs to consider the direct carbon impact of their operations and be proactive in managing these emissions.

Developments since Initial Proposals

8.3. We published our proposals for BCF reporting in Initial Proposals and received broad support. In particular, respondents agreed that we should not attach any financial reward or penalty to the BCF reporting in the DPCR5 period as it will take time before the reported data is sufficiently reliable to form the basis of a financial incentive. Some concerns were raised about the scope of the reporting, especially with regard to contractor emissions, with an emphasis on making the reporting proportionate.

8.4. The DNOs tested the reporting template and guidance using 2008-09 data. Following Initial Proposals we met to discuss the lessons learned from the exercise, and these have been incorporated into a modified version of the guidance.

Details of the incentive

BCF reporting

8.5. DNOs will report the carbon emissions related to their business operation in a standard template, according to the following categories: building energy usage, operational and business transport, fugitive emissions[25], fuel combustion and distribution network losses. We are allowing flexibility with respect to the start of the reporting period, in order to enable DNOs to align the BCF annual reporting with any

[25] Fugitive emissions refer to pollutants released into the air from leaks in equipment.

existing internal reporting they undertake; this will avoid unnecessary duplication of administrative costs, especially at this initial stage of reporting.[26]

8.6. DNOs must report on all Scope 1 and Scope 2 emissions[27] on an operational control basis, i.e. report all emissions from operations on which the DNO has full authority to introduce and implement its operating policy.

8.7. DNOs must also report on a subset of Scope 3 emissions (i.e. business travel and external contractors), to ensure that the reporting captures all the emissions arising from the development and operation of the licensee's distribution system, regardless of the legal entity carrying out each activity. We think it is important to capture contractors' emissions relating to the operational transport fleet and mobile power plant given the different business models adopted by DNOs.

8.8. DNOs will also provide a separate commentary describing the data sources and the processes used for recording, estimating and converting their emissions to $kgCO_2e$. We are allowing the DNOs to assess appropriate materiality thresholds – recognising that these will vary between companies (for example some DNOs use subcontractors extensively whereas others do not) and also expecting that this process will be developed and refined over DPCR5.

8.9. The template for BCF reporting and the associated guidance will be included in the Regulatory Instructions and Guidance which will be implemented with the changes to the licence.

League table

8.10. We propose to publish a league table compiled from DNOs' annual BCF reports, which will provide a further reputational incentive on DNOs. The league table will not include the emissions from losses as they are reported separately.

8.11. We propose to measure DNOs' performance in reducing their emissions over time compared to a baseline year of 2010-11.

8.12. To ensure that recent actions to reduce GHG emissions do not disadvantage a DNO by causing it to be measured against a lower baseline, we will consider making adjustments to a DNO's starting position provided the DNO can submit an objective demonstration that their actions resulted in a material reduction of emissions.

[26] We consider that different annual reporting periods between DNOs do not impair the value of the BCF reporting, which focuses on a DNO's ability to manage and reduce its own emissions over time.
[27] Scope 1 are direct GHG emissions that occur from sources that are owned or controlled by the company. Scope 2 accounts for indirect GHG emissions from the generation of purchased electricity consumed by the company. Scope 3 include other indirect GHG emissions that result from the activities of the company, but are not owned or controlled by the company. See the GHG Protocol guidance for further details http://www.ghgprotocol.org/standards/corporate-standard

9. Undergrounding in Areas of Outstanding Natural Beauty and National Parks mechanism

Chapter summary

This chapter sets out the details of the Undergrounding in Areas of Outstanding Natural Beauty (AONBs) and National Parks mechanism. It explains the developments around the scheme since Initial Proposals and sets out the DNOs' allowances for DPCR5.

Purpose of the mechanism

9.1. Under the Electricity Act 1989 Ofgem has a duty to have regard to the impact of distribution activities on the environment. During DPCR4, one of the schemes implemented to address this duty, as well as Ofgem's duty to the National Parks and Access to the Countryside Act 1949 (as amended by the Environment Act 1995), was the Undergrounding in Areas of Outstanding Natural Beauty (AONBs) and National Parks mechanism. The purpose of the scheme is to facilitate DNOs achieving their duty with regard to visual amenity in AONBs and National Parks and ensuring that an effective stakeholder engagement process is maintained.

Developments since Initial Proposals

9.2. We have considered the following proposals that were put forward by several respondents to our Initial Proposals.

Extension of the scheme to include areas around the boundaries of AONBs and National Parks

9.3. A number of respondents to Initial Proposals disagreed with our view that extending the scheme to cover areas around the boundaries of the designated areas would lead to confusion amongst stakeholders and make the scheme more difficult for DNOs to manage. The majority of these respondents argued that there are ingrained planning requirements that require consideration to be given to AONBs, which should allay Ofgem's concerns about this complicating the scheme and making it more difficult to manage.

9.4. We still think that the undergrounding mechanism will operate better with a mechanistic approach. We think the restriction of schemes to the defined areas still provides a range of viable schemes for stakeholders to consider. However, to provide a level of flexibility for stakeholders, we will allow up to ten per cent of the costs for schemes that qualify to relate to undergrounding work that takes place outside of the boundaries of the particular AONB or National Park.

Widening the scope of regional classifications that are eligible for the scheme

9.5. Scottish Power argued that the designated areas eligible for the scheme should be widened to address the regional variations in areas that are classed as eligible. Their concern stems from the fact that AONBs do not exist in Scotland. They believe that this unfairly limits their allowance for the SP Distribution area and subsequently impacts on the level and scope of work they are able to undertake.

9.6. As customer willingness to pay was derived from a question relating to the undergrounding of lines in AONBs and National Parks, and given that the scheme has worked well during DPCR4 by being based around that, we will not be changing this aspect of the scheme.

New overhead lines in National Parks and AONBs

9.7. A number of the consultation responses to the Initial Proposals from representative bodies for AONBs and National Parks, urged Ofgem to extend the scheme to include new lines in the designated areas. The respondents argued that DNOs should be able to use the allowance to fund the difference between the cost of a new overhead line and an underground alternative and prevent the responsibility from falling solely on the landowner.

9.8. Having considered this proposal further, we still think that the relevant environmental and planning regulation already entrenched in law, alongside stakeholder engagement requirements are sufficient to deal with the construction of new lines in National Parks and AONBs. In addition, as outlined in the March 2008 Initial Consultation document[28], this would not be compatible with a DNO's obligation to provide a connection customer with the least costly type of connection. This least costly connection option may involve an overhead line in an area designated as an AONB or National Park and any further complication to the funding of new connections would be problematic.

Details of the mechanism

9.9. For DPCR5 there will be an overall expenditure cap across all DNOs of £60.6m. This figure has been calculated from the national average level of customer willingness to pay for the undergrounding of 1.5 per cent of overhead lines in AONBs and National Parks.

[28] Electricity Distribution Price Control Review, Initial consultation document, 28 March 2008 Ref:32/08 www.ofgem.gov.uk

Table 9.1 - Proposed allowances per DNO for undergrounding in AONBs and National Parks during DPCR5

DNO	Number of customers	Total km of overhead lines in national parks and AONB	Allowance (£m)
CN West	2,435,566	2,339	4.7
CN East	2,591,542	699	3.5
ENW	2,356,612	3,232	5.4
CE NEDL	1,568,612	3,235	4.5
CE YEDL	2,247,727	1,047	3.4
WPD S Wales	1,088,889	2,350	3.2
WPD S West	1,520,440	6,547	7.2
EDFE SPN	2,229,279	4,922	6.6
EDFE EPN	3,496,181	1,900	5.6
SP Distribution	1,991,331	553	2.7
SP Manweb	1,482,550	3,626	4.7
SSE Hydro	729,290	3,109	3.4
SSE Southern	2,905,434	2,753	5.6
Total	**26,643,453**	**36,312**	**60.6**

9.10. The DNOs will continue to be allowed to recover this money from customers at the end of the five-year price control. The process followed for the logging up of these costs is set out in Chapter 2 of the Financial Methodologies document. The individual logging up of these costs is subject to each DNO being able to demonstrate that it has taken account of advice from local environmental groups and/ or planning bodies in determining how any expenditure on network undergrounding is prioritised.

9.11. Lines in areas that are given either AONB or National Park status during DPCR5 will become eligible for this scheme. However, an increase in eligible lines will not affect a DNO's allowance for DPCR5. As outlined in Initial Proposals, each DNO allowance has been calculated through a combination of relative customer numbers and length of lines within the borders of existing AONBs and National Parks. The total allowance for DPCR5 and its allocation across DNOs is fixed for the period based on the numbers available to Ofgem at the time of publication of Final Proposals.

10. Connections: overview

Chapter summary

DNOs' track record in the level of service provided to customers seeking a connection has generally been poor throughout DPCR4. This has been a significant cause for concern for customers. We have worked extensively with industry to develop a package of measures to require the DNOs to improve this performance significantly, through clear performance standards, with associated compensation payments to individual customers where these are not met. Our proposals also seek to encourage the development of competition as in the longer term we consider this is the best way to ensure that customers get good service tailored to their needs and value for money. This chapter provides a detailed explanation of our full range of proposals for connections in DPCR5.

Background

10.1. At the start of the DPCR5 consultation process we identified connections as being a key area of concern for customers. We have devoted a great deal of effort and resources in the review on developing the framework for connections in DPCR5 to ensure that there is a step change in performance levels across the industry.

10.2. We have sought to address connections in a number of ways and the details of these elements of our overall connections policy for DPCR5 are outlined in Chapters 11 and 12 of this document and in Chapter 2 of the Financial Methodologies document. This chapter brings together at a high level, the key components of our connections policy for DPCR5.

10.3. During the development of our proposals the DNOs have expressed concern over the potential for being penalised more than once for the same failure. Our overall package addresses this concern by having an overall cap on DNOs' shareholders' exposure to funding compensation under the new connections standards of performance and making clear our intention to consider compensation payments the DNO has already made to affected customers when setting a penalty for a licence breach.

Overview of connections policy for DPCR5

10.4. We propose to take measures to improve the connections service DNOs provide in return for allowing them to earn a regulated margin of four per cent on competitive connections activities. We think this regulated margin could be worth around £40m to DNOs over the first three years of DPCR5. In return they will be governed by new guaranteed standards on connections, requiring them to pay out to customers directly if the standards are not met. We will introduce a new licence condition that requires the DNOs to meet these standards in at least 90 per cent of each of the three specific segments set out in Chapter 11. DNOs will only be able to earn the regulated margin once they demonstrate, via an independent audit, that

they have all the relevant systems and processes to accurately record connections guaranteed standards of performance and connections-related price control data. We expect all DNOs to have these systems and processes in place by no later than October 2010. DNOs will not be able to earn unregulated margins if they fail to meet the new licence conditions and will see a reduction in their allowed revenues up to a cap of 100 return on regulatory equity (RoRE) basis points across DPCR5 if they do not meet the new guaranteed standards of performance on their connection services.

10.5. To encourage DNOs to do all they can to stimulate effective competition in connections, we will allow them to earn an unregulated margin on their competitive activities if they pass a competition test. We will judge whether a DNO has passed this test having looked at a range of indicators typically used by competition authorities (including Ofgem) when assessing whether competition is effective. These will include: market shares, price, service quality and barriers to entry. We will consult whenever assessing whether a DNO has passed the test before reaching our final decision. We will also conduct a full competition review of any outstanding market segments that have not been judged by the end of December 2013 in the third year of the price control review and may refer any matters of concern to the Competition Commission.

10.6. Through our work with industry on connections for DPCR5 we have developed the following:

- standards of performance covering all of the key milestones in the connections process,
- a route for DNOs to demonstrate that there is competition in their local connections markets, and
- allowances for connections expenditure funded through the price control, and new regulatory treatment of revenue from connections activities.

Connections: guaranteed standards of performance

10.7. We have listened to customers and industry participants and are introducing a new Statutory Instrument (SI) specifically aimed at connections. Under this SI we have, with a significant contribution from the steering sub-group dealing with this area, developed a comprehensive set of standards that cover the full lifespan of obtaining a connection. Where a standard is not met the DNO will need to make a compensation payment to the individual customer. Ofgem is not introducing caps on individual payments to customers. There will be an overall cap on DNO exposure to the new standards of 100 RoRE basis points across the entire DPCR5 period, with payments beyond this level being funded through distribution use of system charges.

10.8. We recognise that the new standards will require many, and potentially all, DNOs to introduce new systems and processes. We are, following discussion with industry, giving all DNOs until 1 October 2010 to be able to record and report against the new standards. Where DNOs are able to achieve this in advance of this date

they are encouraged to do so and, as stated above, until they are able to, they will not be permitted to levy the regulated margin. Where a DNO fails to meet the 1 October 2010 deadline we will impose a negative adjustment of five basis points of RoRE for each quarter where reporting for that entire quarter was not in accordance with the new guaranteed standards of performance reporting requirements.

10.9. This penalty reflects the seriousness with which we are treating connections and is framed with recent connections-related investigations in mind. Competition in connections is not a new concept. Indeed many customers have expressed frustration at the slow development of competition and good levels of service in electricity connections. DNOs have been heavily involved in the development of the new arrangements and, whilst demanding, we deem the timeframe we are giving for introducing new systems and reporting processes appropriate.

10.10. Once achieved the DNOs will need to ensure that, they maintain and enhance if directed to do so, all the relevant systems and processes for both connections guaranteed standards of performance and connections related price control data.

Connections: competition

10.11. The DNOs will have until December 2013 to demonstrate there is competition in those segments of their local connections markets that we deem to be potentially competitive and which are set out in Chapter 12. DNOs that have failed to demonstrate competition or to put forward a case by December 2013, will be reviewed by Ofgem and could subsequently be referred to the Competition Commission. To assist in the development of competition in these segments DNOs will be able to earn a regulated margin, of four per cent, on the contestable elements of fully funded connections.

10.12. It will be for DNOs to bring forward the evidence they think is relevant in demonstrating the development of competition. We do not propose to prescribe the content and format of information that the DNOs should provide, but DNOs should bear in mind the discussions and expectations that have arisen during the development of our proposals. This is set out in more detail in Chapter 12.

10.13. Where a DNO successfully demonstrates its case for a particular market segment, then Ofgem will not require them to levy a set margin. Instead the DNO will be able to set their own margin and in doing so the onus will be on the DNO to abide by competition law.

10.14. If a DNO breaches a relevant licence condition then our proposals may require the DNO to pay back money to customers. We will have regard to the extent of customer detriment when determining the potential penalty to impose. If the licence breach relates to the new connections guaranteed standards of performance it is likely that the DNO will have offset the customer detriment, to some extent, by making payments under the standards.

10.15. DNOs recover from customers the costs of delivering a range of services to customers - one of the most important is to quote and then where appropriate connect them quickly and efficiently. If a DNO is failing to comply with the licence condition in respect of connections guaranteed standards of performance, in assessing any financial penalty we would look at the harm to customers as a result of this failure. Recognising that it can be difficult to establish the extent of harm we will also look at the "regulatory contract" between customers and DNOs. RORE determines the reward to shareholders for the services the DNOs provide to customers and we may use this as the basis to determine any financial penalty by assessing the proportion of their activities and resources used to provide connection services. Where this situation arises we will adhere to our established principles in respect of setting penalties for a licence breach. This is to enable Ofgem to be proportionate in its treatment of the margins earned and future margins, taking into account the seriousness of the breach and any compensation already paid out to customers.

Regulatory treatment of connections expenditure and income

10.16. For DPCR5, connections that are fully funded by the connecting customer will sit outside of the price control and will be dealt with as an excluded service see Chapter 8 of the Financial Methodologies document. The remaining connections, i.e. those subject to the apportionment rule, will remain in the price control. These connections have been divided into the following categories:

- high-volume low-cost connections, and
- low-volume high-cost connections.

10.17. For the high-volume low-cost connections we have developed volume drivers for the three subcategories of:

- small scale LV connections,
- all other LV-only connections, and
- LV connections with HV work.

10.18. At DPCR6 we will make a true-up adjustment to future revenues to reflect the difference between the actual number of connections made and the number assumed as part of our ex ante allowance. This is set out in detail in Chapter 2 of the Financial Methodologies document.

10.19. At the end of DPCR5, DNOs can provide evidence for Ofgem to consider as part of the volume driver true-up if they can demonstrate that an increase in competition has led to their expenditure on these connections being significantly above the ex ante allowance. Further details are contained in Chapter 2 of the Financial Methodologies document.

11. Connections: guaranteed standards of performance

Chapter summary

This chapter sets out the details of our Final Proposals in relation to the introduction of new connections guaranteed standards. It explains the developments since Initial Proposals and sets out details on how the connections standards will operate.

11.1. Since the publication of Initial Proposals we have worked closely with industry stakeholders to develop further the connections guaranteed standards of performance that will apply to the metered and unmetered services provided by all DNOs. They will be implemented through a new Statutory Instrument (SI) called The Electricity (Connection Standards of Performance) Regulations 2010 (the "New Connections Standards").

11.2. We have consulted on a draft of the SI[29]. We will issue a further consultation on the SI shortly with a formal consultation due to take place in January 2010.

11.3. Through industry working groups we have developed the policy that underpins the New Connections Standards and finalised the supporting legal framework. In this chapter we set out:

- the purpose of the standards and what they are attempting to achieve for customers,
- how the standards have developed since Initial Proposals including detail on the changes that we have made,
- an overview of the supporting regulatory framework, and
- how the various legal instruments interact.

Purpose of the standards

11.4. The standards we have developed through the DPCR5 consultation process are designed to ensure that connections customers receive a good level of service from their DNO. The metered standards focus on the interactions that take place between customers and DNOs at each stage of the connections process. These stages were described in our Initial Proposals document. The unmetered standards[30] cover the range of unmetered services that DNOs provide such as fault repairs, provision of quotations and physical connection works.

11.5. In formulating the standards we have reviewed the types of connections that are implemented and considered carefully the key stages that take place during the

[29] Open letter on Ofgem's proposals to introduce new connections standards of performance and revise existing standards of performance for electricity distributors (137/09): http://www.ofgem.gov.uk/Networks/ElecDist/QualofServ/GuarStandds/Documents1/Consultation%20on%20the%20draft%20SIs%20final%20for%20publication.pdf

[30] The unmetered standards were previously provided through a voluntary service agreement and are being formalised through the New Connections Standards.

development of such connections. We have crafted the standards around these key types. For example, the provision of quotations has been segmented by voltage ranges and a range of timeframes has been proposed for these segments. We have also focussed specifically on introducing standards that provide customers with certainty around the development phases of a connection and in particular the commencement and completion (including energisation) of connections works.

11.6. We believe that the package of standards will go a long way to improving the level of service that metered and unmetered customers receive from their DNO. It will also ensure certainty around the post quotation acceptance phases (commencement and completion of their connection works) which customers have specifically identified as a problem area.

11.7. Where a DNO fails to meet the service under the standards it will make payments to the affected customer (subject to the exemptions that are set out in the supporting SI). An overview of the standards including the relevant payments that will apply is set out in the Table 11.1 below.

Table 11.1 - Metered connections guaranteed standards

Service	Performance level	Payment
Provision of a budget estimate <1MVA	Within 10 working days	£50 – one off payment
Provision of a budget estimate >1MVA	Within 20 working days	£50 – one off payment
Provision of a quotation for a single LV service connection	Within 5 working days	£10 for each working day after the end of the prescribed period up to and including the day on which the quotation is dispatched
Provision of a quotation for 2 to 4 services or for 1-4 premises extension to the existing LV network	Within 15 working days	£10 for each working day after the end of the prescribed period up to and including the day on which the quotation is dispatched
Provision of an LV demand quotation	Within 25 working days	£50 for each working day after the end of the prescribed period up to and including the day on which the quotation is dispatched
Provision of an LV generation quotation	Within 45 working days	£50 for each working day after the end of the prescribed period up to and including the day on which the quotation is dispatched
Provision of a HV demand quotation	Within 35 working days	£100 for each working day after the end of the prescribed period up to and including the day on which the quotation is

Service	Performance level	Payment
		dispatched
Provision of a HV generation quotation	Within 65 working days	£100 for each working day after the end of the prescribed period up to and including the day on which the quotation is dispatched
Provision of a EHV demand and generation quotation	Within 65 working days	£150 for each working day after the end of the prescribed period up to and including the day on which the quotation is dispatched
Price accuracy review scheme challenge – single service connection (three phase whole current metering)	Not applicable	£250 – one off payment
Price accuracy review scheme challenge – 1 to <5 service connections (three phase whole current metering)	Not applicable	£500 – one off payment
Post acceptance scheduling < 5 service connections	Within 7 working days	£10 for each working day after the end of the prescribed period up to and including the day on which contact occurs
Complete LV service connections works	In timescale agreed with the customer	£25 for each working day after the agreed date up to and including the day on which the works are completed
Post acceptance scheduling LV demand and LV generation connections	Within 7 working days	£50 for each working day after the end of the prescribed period up to and including the day on which contact occurs
Post acceptance scheduling – HV demand and HV generation connections	Within 10 working days	£100 for each working day after the end of the prescribed period up to and including the day on which contact occurs
Post acceptance scheduling – EHV demand and EHV generation connections	Within 15 working days	£150 for each working day after the end of the prescribed period up to and including the day on which contact occurs
Commence LV,HV & EHV demand and generation connections works on customer's site	In timescale agreed with the customer	£20 for each working day after the agreed date up to and including the day on which the works are commenced
Complete LV works (including phased works)	In timescale agreed with the customer	£100 for each working day after the agreed date up to

Service	Performance level	Payment
		and including the day on which the works are completed
Complete HV works (including phased works)	In timescale agreed with the customer	£150 for each working day after the agreed date up to and including the day on which the works are completed
Complete EHV works (including phased works)	In timescale agreed with the customer	£200 for each working day after the agreed date up to and including the day on which the works are completed
Complete LV energisation works (including phased works)	In timescale agreed with the customer	£100 for each working day after the agreed date up to and including the day on which energisation occurs
Complete HV energisation works (including phased works)	In timescale agreed with the customer	£150 for each working day after the agreed date up to and including the day on which energisation occurs
Complete EHV energisation works (including phased works)	In timescale agreed with the customer	£200 for each working day after the agreed date up to and including the day on which energisation occurs

Table 11.2 - Unmetered connections guaranteed standards

Service	Performance level	Payment
Emergency Fault Repair response	Attend site in 2 hours	£50 – one off payment
High Priority Fault Repair – Traffic Light Controlled	2 calendar days	£10 for each working day after the end of the prescribed period up to and including the day on which the fault rectification works are completed
High Priority fault repair – non Traffic Light Controlled	Within 10 working days	£10 for each working day after the end of the prescribed period up to and including the day on which the fault rectification works are completed
Multiple Unit Fault Repair	Within 20 working days	£10 for each working day after the end of the prescribed period up to and including the day on which the fault rectification works are completed

Service	Performance level	Payment
Single Unit Fault Repair	Within 25 working days	£10 for each working day after the end of the prescribed period up to and including the day on which the fault rectification works are completed
Provision of a quotation New Works order (1 to 100 units)	Within 25 working days	£10 for each working day after the end of the prescribed period up to and including the day the quotation is dispatched
New works order – new site	Commence and complete in timescales agreed with the customer	£10 for each working day after the agreed date up to and including the day on which the works are completed
New works order – existing adopted highway	Within 35 working days	£10 for each working day after the end of the prescribed period up to and including the day on which the works are completed
Where a DNO fails to make a payment under the regulations	Within 10 working days	£50 – one off payment

Developments since Initial Proposals

11.8. Since the publication of Initial Proposals the industry working groups have advised Ofgem on the detail of how the New Connection Standards will operate. Through these discussions and in light of responses we received to Initial Proposals from DNOs and customers, a number of amendments have been made to the standards. These are set out and discussed below. We also describe in this section our proposals for the development of a price accuracy review scheme and discuss implementation issues related to the standards.

Scope of the standards

11.9. We have considered concerns from DNOs about the complexity and range of the standards. DNOs suggested that the proposed standards would increase the complexity of the connection process and that this may impact on their ability to deliver the key services to customers. Whilst sympathetic to these concerns, customers suggested that the proposed scope of the standards should not be reduced. However, they did support consolidating and merging the standards where appropriate.

11.10. In general, the scope and range of standards for Final Proposals are the same as set out in Initial Proposals. We did not reduce or alter the range and scope of the standards as these were identified by customers as being critical to ensuring a good service, from requesting a connection through to the completion of works by a DNO. However, we have reviewed the overall package and a number of the metered standards have been consolidated and merged.

11.11. The following metered standards have been merged:

Quotations

- The standards for EHV demand and EHV generation schemes have been merged as they both have a 65 working day timescale.

Post acceptance s*cheduling*

- The standards for LV demand and LV generation have been merged as they both have a 7 working day timescale,
- The standards for HV demand and HV generation schemes have been merged as both have a 10 working day timescale, and
- The standards for EHV demand and EHV generation schemes have been merged as they both have a 15 day working timescale.

11.12. The unmetered standards have not been merged as the industry working groups have advised Ofgem that there was not scope to do this. Differences in the range of unmetered services mean those particular services did not lend themselves to further consolidation.

*Standards e*x*emptions*

11.13. The supporting SI includes exemptions that are specific to standards where a set date applies. The specific exemptions were set out in our consultation letter[31]. A number of metered and unmetered standards require DNOs to meet timescales agreed with a customer, rather than to meet a predefined timescale for providing the service. This concept generally applies to the delivery phases of connections works. It is often the case that agreed dates can vary during the build phase of a connection. For example, the customer may realise that the site will not be ready for the DNO to commence a phase of works. Where this is the case and customers and DNOs seek to revise an agreed date, this is not treated as an exemption from the standards. The onus would be on both parties to attempt to agree a revised date for the works or phase of works in question.

[31] Open letter on Ofgem's proposals to introduce new connections standards of performance and revise existing standards of performance for electricity distributors (137/09): http://www.ofgem.gov.uk/Networks/ElecDist/QualofServ/GuarStandds/Documents1/Consultation%20on%20the%20draft%20SIs%20final%20for%20publication.pdf

11.14. We have also reviewed the descriptions for the standards and responded to concerns from DNOs about whether the 'Post-acceptance scheduling' standards were achievable. In particular, concerns were expressed by DNOs that it may not be possible to agree dates for the commencement and completion of connections works within 7, 10 and 15 working days of a customer's acceptance of a quotation. The description of this standard has been amended to 'commence the process of agreeing a schedule of dates for commencement and completion and energisation of the works referenced in the accepted quotation'.

Price accuracy review scheme (the "Scheme")

11.15. In Initial Proposals we explained that we would develop further our proposals to implement a price accuracy review scheme (the "Scheme"). A number of DNOs questioned the need to introduce such a Scheme and sought clarity on how this would be applied, including details on the obligations that would be placed on them. Our rationale for introducing this measure is to ensure that customers, where necessary, are able to challenge the accuracy of a DNO's quotation through a simple and easy to understand process. The industry working group has developed further how the Scheme will operate and the key features that underpin the scheme. This is set out and discussed below.

Overview of the Scheme

11.16. The obligation for DNOs to develop a Scheme for the Authority's approval will be set out in proposed Standard Licence Condition 15A. Each DNO will be obliged to submit for the Authority's approval a Scheme and make this available to customers. The Scheme that the Authority will be asked to approve will set out the steps a customer must follow to raise a price accuracy challenge. Only customers with up to four small service connections will be eligible to challenge the accuracy of a quotation through the DNOs' published Scheme.

11.17. There are aspects that are still being developed and following the publication of Final Proposals we will continue to progress the details that underpin the Scheme. In particular, we have identified that DNOs will need to amend their charging schedules to facilitate the Scheme as the current schedules do not provide customers with sufficient information about how a DNO derives its charges. The development of a charging template that breaks down the components of DNOs' quotations, provided that the price ranges are set out in small ranges, will provide sufficient detail to enable a customer to challenge its quotation. The industry working group is currently developing the level of detail DNOs should provide in quotations. This is likely to include details of charges (including non-contestable charges) to enable small service connection customers as well as larger connection customers (those outside of the Scheme) to cross-reference their quotation against a DNO's charging template.

Standards implementation

Capping the standards

11.18. In their responses to Initial Proposals and in the industry working groups DNOs have argued strongly for caps to be placed on the payments that can be made through the connections standards. DNOs have argued that it is not reasonable for the individual standards to remain uncapped. Customers, on the other hand, have argued that achieving the standards is entirely within DNOs' control and that placing caps on individual standards will remove incentives to fix persistent or systemic issues.

11.19. In Initial Proposals we set out our position on caps and explained that the payment levels proposed for the standards were not designed to compensate customers for subsequent financial loss. We also added that delivery of the services is within the control of DNOs and the incentive should remain until the service has been provided. Ofgem does not propose to introduce caps on the individual standards. We believe that delivery of the services is within the control of DNOs and the exemptions detailed in the SI provide DNOs with sufficient protection. We have however given consideration to applying an overall cap on DNOs' liabilities under the standards. There will be an overall cap on exposure to the new standards of 100 basis points (see Table 11.3) across the entire period, with payments beyond this level being funded through distribution use of system charges.

Table 11.3 - Overall DPCR5 cap on RORE exposure to the connections guaranteed standards of performance

	DPCR5 RORE (pre tax) bps	DPCR5 revenue exposure £m
CN West	100	26.5
CN East	100	26.0
ENW	100	23.3
CE NEDL	100	15.9
CE YEDL	100	20.7
WPD S Wales	100	12.1
WPD S West	100	17.3
EDFE LPN	100	22.7
EDFE SPN	100	20.4
EDFE EPN	100	32.3
SP Distribution	100	22.9
SP Manweb	100	21.5
SSE Hydro	100	14.9
SSE Southern	100	30.8

Commencement date for standards

11.20. DNOs have explained that the introduction of the new connection standards will require significant IT systems to manage and administer the regime. DNOs have therefore proposed a 1 January 2011 commencement date. Customers in the working group recognise that a period of time will be required to develop the necessary supporting systems and consider that a 1 July 2010 commencement date is achievable. In our initial open letter on the draft SI we explained that we would consider this matter further and set out our position in Final Proposals.

11.21. We believe that 1 October 2010 is an achievable and realistic commencement date for DNOs. We have reached this conclusion on the basis that there are no outstanding matters that are crucial to the development and construction of IT systems to support the standards. Whilst a number of matters are still being developed by the working group, for example, the charging template that will support the Scheme, these do not impact on policy and have not been identified by DNOs as critical for the construction of IT systems that will support the standards.

Details of the standards

The supporting regulatory framework

Standard Licence Condition (*SLC*) *15A*

11.22. In Initial Proposals we explained that the connections guaranteed standards of performance would be supported by a licence condition and we proposed that an overall performance target (90 per cent) should apply in aggregate across the standards. We also suggested that we would seek to measure DNOs' performance against the 90 per cent performance target on a quarterly basis.

11.23. In their responses to Initial Proposals DNOs questioned the requirement for a licence condition and suggested that customers had sufficient protection through the introduction of connection guaranteed standards. DNOs also expressed concerns that the regulatory regime for connections created a significant risk of potential enforcement action as well as making payments under the standards. These themes have also been repeated by DNOs in the industry working group. Customers have welcomed the steps being taken to improve connections performance and suggest that Ofgem should take measures to ensure that DNOs provide a good level of service to customers.

11.24. We made the case for extending regulation in connections in the early stages of the DPCR5 consultation process. In the industry working group we have repeatedly explained that delivery against the package of standards is within the control of DNOs. We have received (and continue to receive) strong support from customers and customer groups who remain concerned about the poor level of service currently offered by DNOs. We continue to believe that in the absence of effective competition we should regulate the connections market closely.

11.25. We have discussed in the industry working group the application of the 90 per cent performance target and we are of the view that it is not appropriate to apply this in aggregate across the standards as this may mask poor performance in certain market segments or against specific services. Therefore, we propose that the 90 per cent performance target should be applied to each of the following standards and be measured on a quarterly basis:

- All metered standards related to budget estimates and quotations (in aggregate)
- The rest of the metered standards (in aggregate)
- All unmetered standards (in aggregate)

11.26. We expect this change to be reflected in a further draft of SLC15A along with drafting that introduces into the licence the requirement for DNOs to submit for the Authority's approval a Scheme.

11.27. It is noted that the existing SLC 12.6(c) - Requirement to offer terms for use of system and connection[32], will continue to provide a back stop with respect to the provision of quotations in a timely manner. This is particularly important given the poor performance by some DNOs in this area. Removing SLC 12.6(c) from the licence would mean that we are effectively taking a step backwards in terms of customer protection as this would mean moving from a 100 per cent performance standard to a 90 per cent standard. As we are introducing guaranteed standards there may be an expectation among the DNOs that we will be removing the SLC 12 three month backstop from the licence. The DNOs could view SLC 12 remaining in the licence as Ofgem imposing a "double (or even triple) jeopardy" situation where they stand to be 'penalised' once under the guaranteed standards (through the requirement to make a compensation payment) and then again by Ofgem enforcing the licence condition SLC 12. As noted elsewhere in this document, however, we intend to consider compensation payments the DNO has already made to affected customers when setting a penalty for a licence breach. As also noted earlier in section 10, our decision on penalties for licence breach will be aimed at ensuring a proportionate impact on shareholder returns.

11.28. We are also commencing with industry participants the drafting of a Regulatory Instructions and Guidance (RIGs) document for the new connections standards. The RIGs will provide greater detail and clarity on how the standards will operate. The document is yet to be fully scoped but it is likely to include matters such as reporting under the guaranteed standards, guidance on minimum information requirements, clock start/pause events and the application of exemptions/agreed dates. It will also include a more detailed description of the respective standards.

[32] SLC 12 obliges DNOs to provide quotations as soon as reasonably practicable, after the receipt of the request from the requester, and in any event not more than three months after the receipt by the licensee of all the information that it may reasonably require for the purpose of formulating the terms of the offer.

Statutory Instrument (SI)

11.29. As noted above, we have consulted on the New Connections Standards SI and responses are being considered to develop an updated version for further consultation.

12. Connections: competition

Chapter summary

This chapter sets out our policy proposals for competition in connections. There is a lack of effective competition in the connections market. Customers have persistently expressed concerns about the levels of service and prices offered in the absence of effective competition. We are proposing a number of measures to stimulate a more competitive connections market. These measures include allowing the DNOs to earn regulated margins and unregulated margins subject to meeting our competition test.

Purpose of the incentive

12.1. Ofgem has sought to promote competition in connections for a number of years. We are concerned that competition is yet to develop effectively in all parts of the electricity connections market and that in most DNO regions many customers do not have effective choice.[33] Recognising that competition may not be practicable in certain parts of the market, our proposals seek to remove barriers to competition and provide an incentive for DNOs to proactively facilitate competition where competition is viable. By December 2013 at the latest, DNOs must provide detailed evidence to Ofgem to demonstrate that competition in their regional markets is working well for customers and there are no barriers to competition imposed by the DNO.

Developments since Initial Proposals

12.2. Since we published Initial Proposals in August we have continued to develop connections policy in consultation with the steering sub-group reporting to Ofgem's Electricity Connections Steering Group (ECSG). We have taken on board consultation responses and the advice of the steering sub-group, resulting in a number of modifications and further development of our policy since Initial Proposals.

12.3. In Initial Proposals we consulted on what weighting we should apply to the market share element of the competition test and what weighting there should be on the price and service aspects. We received lots of feedback from respondents that market share on its own is not necessarily a good indicator of effective competition. We agree with this view. We have devised a process that will require DNOs to demonstrate effective competition with reference to a broader range of indicators. These indicators are typically used by Ofgem and other competition authorities when assessing the effectiveness of competition in a market.

12.4. We now propose that there will be some pre-conditions to a DNO earning a regulated margin. A number of respondents to Initial Proposals expressed concerns

[33] The average market penetration of new entrants in the electricity connections market stood at only eight per cent during 2007-08. (Source: Gas and Electricity Connections Industry Review 2007-08, 16 October 2008, ref: 143/08)

with the proposed allowance of regulated margins before DNOs have demonstrated effective competition. The main reason for allowing regulated margins upfront is to provide sufficient incentive and headroom to attract new entrants to the market to make competition more effective, raise the level of service and deliver competitive pricing. It is not intended to be a reward or incentive for DNOs. Nevertheless, we agree that customers should expect some benefit for the increase in charges that the margin will give rise to. In addition to the systems and processes pre-conditions outlined in Chapter 10, we will require a commitment from DNOs to make guaranteed standards payments to all types of customers including generators, independent connections providers (ICPs) and independent distribution network operators (IDNOs).

12.5. We propose to allow DNOs to earn a four per cent regulated margin on the contestable elements of their connections activities, provided they meet the conditions set out in Chapter 10. Following responses to Initial Proposals, we now propose to allow regulated margins on the indirect as well as the direct costs associated with the contestable element of connection charges. We recognise that there is a rationale for allowing the margin on indirect costs given that some elements (such as design fees) are contestable and can be carried out by third parties. Some respondents suggested that this approach is justified on the basis that the total margins earned would more accurately reflect market rates for electrical contractor margins. Our position has not changed on the proposed level of regulated margin (i.e. four per cent). Despite a range of views from respondents on the appropriate level of regulated margin to allow, very little tangible evidence was put forward, within a timescale to be considered by the Authority, to support a higher or lower margin.

12.6. In Initial Proposals we suggested an automatic clawback approach which disallows or recoups the difference between the unregulated and regulated margins in the given regulatory year(s). Following further development and discussion in the steering sub-group, we would like to retain some flexibility so that we can be proportionate in the treatment of past and future margins, depending on the circumstances of the individual case. We now propose to retain some discretion as to how the clawback mechanism will operate when a DNO breaches the legal requirements.

12.7. A number of industry respondents considered that Initial Proposals was not sufficiently clear as to whether the legal requirements for the competition test are competition specific or whether they included compliance with the performance standards. We propose that the legal requirements are competition and performance specific and will cover the requirements listed in 12.17.

12.8. We are proposing some small changes to the definitions for market segmentation. This is to ensure that for regulatory reporting purposes, connections activities can be broken down to align with the guaranteed standards reporting. These changes are:

- amending the definition of LV one-off industrial and commercial connections to refer to three phase whole current metering instead of 60 kVA,

- amending the market segmentation for unmetered connections to enable alignment with the guaranteed standards categories, and
- amending the definition of the HV and EHV segment to include LV connections with upstream EHV work.

Details of the incentive

12.9. The key elements of our competition in connections proposals are:

- segmenting the electricity connections market to identify those segments where competition is more likely to develop, which in turn would attract a connections margin,
- allowing regulated margins to all DNOs in market segments that are potentially competitive in order to provide more headroom for the development of competition, and
- allowing unregulated margins in competitive segments where DNOs can demonstrate that competition is effective by meeting a defined competition test.

Market segmentation

12.10. We think it is appropriate to segment the market so that we can clearly exclude those segments from earning a margin where competition is not viable now or in the foreseeable future. Also, the market segmentation that we have devised in consultation with industry will underpin the regulatory reporting requirement for connections during DPCR5.

12.11. The market segmentation is not intended to restrict the way in which a DNO presents its evidence case for unregulated margins. Although the entire market must be accounted for in the evidence case by December 2013, there will be flexibility for DNOs to define their market in the way they deem most appropriate.

12.12. The market segmentation we will be using for the purposes described in paragraph 12.10 is shown in Tables 12.1 and 12.2. The segments shaded in grey will be exempt from earning any margin.

Table 12.1 - Market segmentation for metered demand and generation connections

Demand connections	
Voltage	Market segmentation
LV	Small scale LV domestic connections- 1-4 premises

	One-off industrial & commercial single or three phase whole current metering
	Other LV with only LV work
HV	LV or HV end connections that involve HV work
HV & EHV	LV and/or HV connections involving EHV work
EHV and above	EHV and 132kV customer connections
Distributed Generation	
LV metered generators	Generation with works limited to LV
HV and EHV generators	Generation with works above LV

Table 12.2 - Market segmentation for unmetered connections

Unmetered connections
New local authority connections: 1-100 jobs
New connections work for Private Finance Initiatives (PFIs)
Other unmetered connections work (non-local authority or PFI)

Allowing regulated margins

12.13. A four per cent margin will be allowed on sole-use contestable connections activities subject to the preconditions described in paragraph 12.4 being met by the DNO. We anticipate that regulated margins will cease to apply from 1 January 2014 by which date we expect all DNOs to have demonstrated effective competition in their regions. DNOs do not have the discretion to vary the margin across segments and jobs and must decide whether to apply the four per cent margin to all relevant segments or not to apply a regulated margin at all. The licence will contain an on/off switch provision to enable this.

12.14. There will be a comprehensive reporting requirement for connections activities enabling Ofgem to have oversight of charges and cost recovery. DNOs will be incentivised to recover costs accurately as Ofgem can use its enforcement powers under section 25 of the Electricity Act 1989 or competition powers under section 43 of the Electricity Act 1989 as appropriate to deal with excessive or systematic over or under recovery. A minimum level of variance will be tolerated due to moving costs. Where there is work in progress spanning DPCR4 and DPCR5, costs incurred in DPCR4 will be subject to the DPCR4 rules[34] and costs incurred in DPCR5 will be subject to the DPCR5 rules. If the costs are phased they will be subject to the rules of the price control in which the majority of the costs of the job are incurred. DNOs should not be charging margins before they have met the preconditions described in 12.4

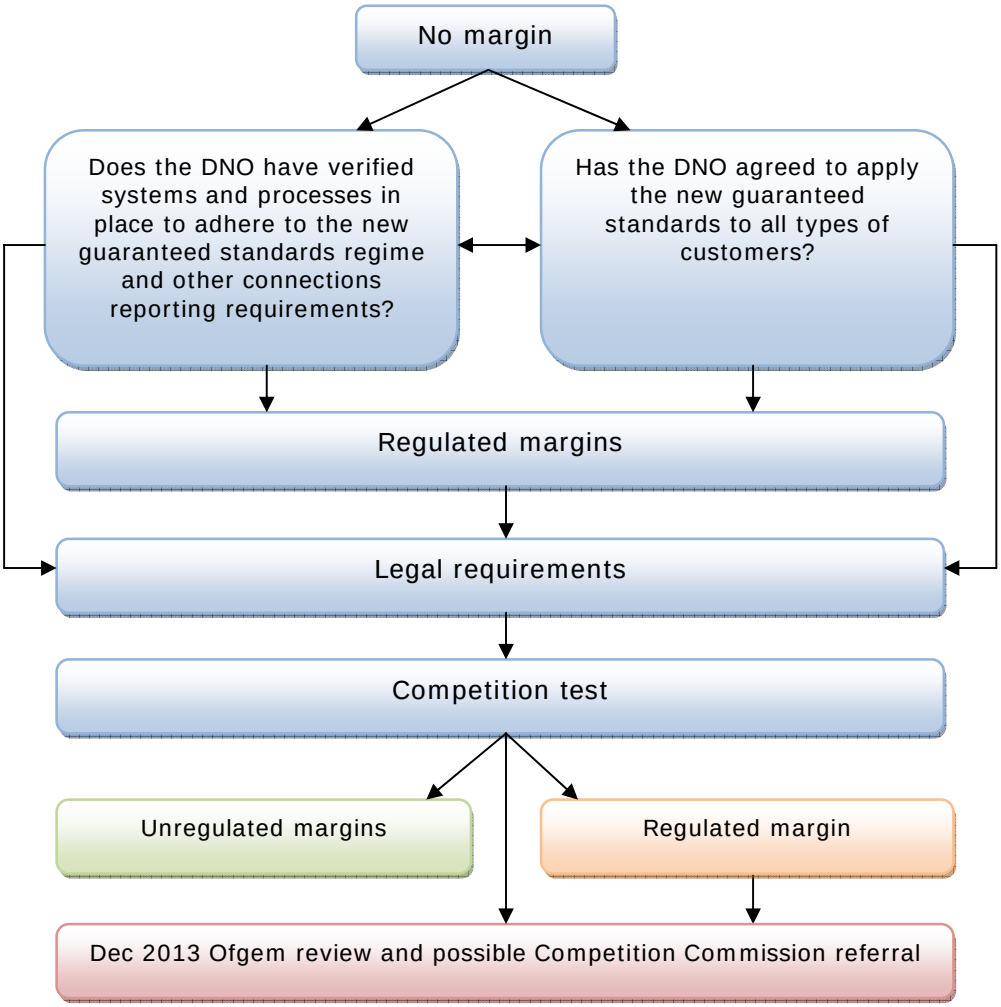
[34] In DPCR4 DNO margins on contestable connections are removed through the way the RAV is updated for actual connections costs and income, although DNOs retain a limited benefit through the capex rolling incentive.

Applying the competition test and unregulated margins

Process

12.15. Where DNOs can demonstrate effective competition in their regions by meeting our competition test, an unregulated margin constrained by competition will be allowed. DNOs that have failed to demonstrate competition or put forward a case by December 2013 will be reviewed by Ofgem and could subsequently be referred to the Competition Commission. The process for earning margins and assessment against the competition test is shown in Figure 12.1.

Figure 12.1 - Process for earning margins and assessment against the competition test



Scope of the competition test and legal requirements

12.16. The overriding objective of the competition test is to enable DNOs to demonstrate that the market is working effectively for their customers. The DNO's evidence should enable Ofgem to take a holistic view of the effectiveness of the market and prescribe an appropriate course of action (i.e. allow regulated or unregulated margins, or further work to remove barriers). Accepting that all markets are different, there will be a flexible approach to the format and scope of the DNO's evidence case subject to the legal requirements being met.

12.17. Compliance with the legal requirements is essential for passing the competition test. The legal requirements are for the DNO to have no enforced breaches in the given regulatory year of:

- standard licence condition 12.6(c): Requirement to offer terms for use of system and connection,
- amended standard licence condition 15: Standards for the provision of Non-Contestable Connections Services,
- new standard licence condition 15A: Connections policy and connection performance,
- standard licence condition 19: Prohibition of discrimination under Chapters 4 and 5, and
- the Competition Act 1998.

12.18. Overall, we will be looking to see whether we can rely on real competition or the threat of competition to protect consumer interests rather than regulation of the margin earned by the DNO. There are a number of key issues that DNOs should consider in making their evidence case. This is not intended to be an exhaustive list of requirements but provides guidance on aspects of the market that we will look at:

- barriers to competition, including parts of the market where competition is not feasible and the reasons why,
- actual and potential competition (this is intended to capture views on levels of competitive activity),
- price and transparency of pricing to customers,
- promoting awareness of competitive alternatives amongst connections customers,
- competition in connections procedures and processes, and
- efforts to open up non-contestable activities to competition.

12.19. We will assess each case and publically consult on our 'minded to' position before issuing a decision on the case. This will provide an opportunity for customers and industry players to put forward their views and experiences of the market and for Ofgem to take these into consideration. A DNO that fails either the competition test or legal requirements will be prevented from making a new case until a period of at least four months has elapsed. The Authority will make a decision on each case within four months of the date of submission, unless the DNO is under investigation for any of the legal requirements set out in 12.17 where the investigation relates to segments put forward in the evidence case.

Unregulated margins

12.20. DNOs that pass the competition test will be allowed to set their own margins which will be constrained by competitive activity in their regions. Ofgem will continue to monitor connection charges through the new annual reporting requirement. DNOs must ensure that their approach to setting margins is consistent with the requirements of their licences and competition law. This will include explanation in their connection charging statement that a margin is being applied.

Clawback mechanism

12.21. Where a DNO is earning regulated or unregulated margins and is subsequently found to be in breach of the legal requirements described in 12.17, Ofgem could claw back the margins and require the DNO to recompense customers directly where possible and disallow future unregulated margins. The licence will contain a clawback provision to enable this. The clawback provision will not be automatic but will be directed by Ofgem. This is to enable Ofgem to be proportionate in its treatment of the margins earned and future margins, taking into account the seriousness of the breach and any compensation already paid out to customers. This approach is consistent with Ofgem's published criteria for fixing the quantum of a financial penalty[35].

[35] Utilities Act: Statement of policy with respect to financial penalties, October 2003 http://www.ofgem.gov.uk/About%20us/Documents1/Utilities%20Act%20-%20Statement%20of%20policy%20with%20respect%20to%20financial%20penalties.pdf

13. Broad measure of customer satisfaction

Chapter summary

This chapter details the proposed scope of our new incentive on customer satisfaction. We will introduce a composite measure consisting of a customer satisfaction survey, a complaints metric and stakeholder engagement. It is designed to capture the views of all types of customers across a broad range of contact experiences.

Purpose of the incentive

13.1. The purpose of this new incentive is to drive improvements in the quality of the overall customer experience by capturing and measuring customers' experiences of contact with their DNO across the range of services and activities the DNOs provide. The broad measure is intended to replicate the sorts of measures typically used by consumer-facing businesses in competitive markets to monitor and improve the service they offer their customers. It builds on the existing DPCR4 telephony incentive scheme which focuses on the quality of DNOs' telephone call handling. Our concern is that the existing measure encourages DNOs to focus on one element of customer service. We intend the new measure to be broad in the sense that it captures many aspects of the customer experience and the views of all types of customers across the proposed components of the scheme. We are proposing a composite measure of customer experience consisting of three key elements:

- customer satisfaction survey,
- complaints metric, and
- DNO stakeholder engagement.

Developments since Initial Proposals

13.2. Since we published Initial Proposals in August we have continued to develop the broad measure in consultation with the Consumer Issues Working Group (CIWG). We have taken on board consultation responses and the advice of the CIWG resulting in a number of modifications and further development of our initial proposals.

13.3. First, we propose that the overall revenue exposure will be 14 pre-tax basis points of Return on Regulatory Equity (RORE) per year, equating to 42 RORE basis points in total for DPCR5, given that this incentive will only operate for the last three years of the period. This represents a small increase on proposed exposure in Initial Proposals because of the final packaging and balancing of incentives for DPCR5.

13.4. We also propose to rebalance the exposure of the individual components that make up the incentive. Essentially, exposure to the satisfaction survey component will be increased and the upside of the complaints metric will be removed entirely. Exposure to stakeholder engagement remains unchanged. A number of respondents to Initial Proposals considered that a greater proportion of revenue should be exposed to the survey component. This is to reflect the higher volumes of customers

exposed to the aspects of service covered by the survey. Following further discussion with the CIWG and the Consumer Challenge Group we consider that it is inappropriate for DNOs to be able to earn additional allowed revenues through outperforming on the complaints metric. In a commercial environment companies stand to lose customers and revenue by handling complaints badly but they would not necessarily gain customers and revenue by handling complaints well.

13.5. Table 13.1 summarises the differences between the exposure put forward in Initial Proposals and our final position on this.

Table 13.1 - Proposed changes in total DPCR5 RORE (pre-tax basis points) and annual revenue exposure (percentage)

Component	Initial Proposals		Final Proposals	
	DPCR5 RORE (pre tax) bps	Base demand revenue (%)	DPCR5 RORE (pre tax) bps	Base demand revenue (%)
Customer satisfaction survey	+15/-18	+0.4/-0.5	+33.3/-20.8	+0.8/-0.5
Complaints metric	+15/-18	+0.4/-0.5	-20.8	-0.5
Stakeholder engagement	+6	+0.2	+8.3	+0.2

13.6. Since the publication of Initial Proposals, further work has been ongoing in the CIWG on the calibration of the customer survey and complaints metric components of the incentive. For the customer survey we discussed a number of approaches to setting the reward/penalty thresholds including fixed thresholds, standard deviations from the industry mean and a combined option. Given that we have no previous data on performance at this stage it would be difficult to set fixed thresholds that provide a meaningful incentive for improvement. It may be possible to use pilot data to set the targets during the price control, but this would not provide the certainty required by DNOs at this stage. We propose that where a DNO scores above the mean they will be eligible for an increasing reward, with the maximum reward being determined by a range from the industry mean. This upper range will determine what the annual incentive rate is and the maximum annual penalty will be collared at seven RoRE basis points. The size of the upper range from the industry mean will be informed by the DPCR5 pilot and may take the form of a number of standard deviations from the mean. Further details of the workings of the satisfaction survey component are explained in 13.10 to 13.14.

13.7. Similarly, further work has been ongoing in the CIWG to develop the detail of the complaints metric. The group has discussed and debated the individual measures making up the metric and the relative weightings that could be applied to each. This process has been informed by the first year's complaints data that the companies reported to Ofgem in October. It is apparent that companies have taken

substantially different interpretations of the Complaint Handling Regulations[36] making any meaningful comparisons difficult at this stage. There is further work to be done in the coming months to develop Regulatory Instructions and Guidance (RIGs) that ensure companies are recording and reporting complaints on a consistent basis during DPCR5. Further details of the workings of the complaints metric are explained in 13.15 to 13.17.

13.8. Work has been ongoing with the CIWG and consumer challenge group to develop some criteria for measuring stakeholder engagement. Our proposals on this element are set out from 13.18 onwards.

Details of the incentive

13.9. We will use the first two years of DPCR5 to pilot the broad measure of customer satisfaction. The go-live date will be 1 April 2012. The proposed scope and revenue exposure in DPCR5 is summarised in Table 13.2.

Table 13.2 - Proposed scope of the broad measure

Component	Focus	Target customers	Total DPCR5 Pre-tax RORE bps	Industry annual average base demand revenue (%)
Customer satisfaction survey	Interruptions, connections and general enquiries	Domestic, non-domestic, IDNOs, ICPs, DG, developers and customers dealt with by messaging.	+33.3/-20.8	+0.8/-0.5
Complaints metric	Unresolved and repeated complaints, decisions made by the Ombudsman	All customer complaints (including domestic, non-domestic, DG, IDNOs, ICPs, developers)	-20.8	-0.5
Stakeholder engagement	Stakeholder views of the DNOs' approach to engagement and outcomes from the engagement	All relevant stakeholders including suppliers, IDNOs, ICPs, Local Authorities, developers, DG, environmental, planning and regional development organisations	+8.3	+0.2

[36] SI No.1898, The Gas and Electricity (Consumer Complaint Handling Standards) Regulation 2008 www.opsi.gov.uk

Customer satisfaction survey

13.10. The customer satisfaction survey is intended to capture the views of all types of customers that have had a contact experience with the DNO, including how the contact was handled and how the DNO performed in resolving the customer's issue. The survey will be designed to capture the customer journey from initial contact with the DNO to resolution of their issue. The survey will allow for comparisons between DNOs by using an overall advocacy indicator to generate a score. It will seek to gather customers' views on:

- the company's handling of their contact/service issue,
- the outcome of the contact/service issue,
- the level of satisfaction with the overall experience (using advocacy scoring), and
- the reasons for satisfaction/dissatisfaction.

13.11. The survey is likely to be conducted on a quarterly basis although performance will be measured and rewards and penalties determined annually. Quotas will be set on the types of contact to be covered in the survey subject to advice from the market research agency that is appointed to conduct the pilot. The following weightings will be applied to the categories of contact to make up the DNOs' overall scores:

- 40 per cent - planned and unplanned supply interruptions,
- 40 per cent - connections, and
- 20 per cent - general enquiries.

13.12. At this stage, we do not propose to set fixed targets and incentive rates for the customer satisfaction element of the broad measure. Given that this will be a broad measure of customer satisfaction, we intend to factor in performance both overall and against each of the three categories of contact. In principle, rewards and penalties will be based on an acceptable range of deviation from the industry mean level of performance that is revealed during the pilot. In determining the appropriate range of deviation from the industry mean we will consider what is reasonable from a customer's perspective in the scoring they provide as part of the survey. We will consult on this before April 2012 and will make the final determination to amend the special licence conditions so that the appropriate terms are defined. Chapter 12 in the Financial Methodologies document sets out further details of how we will anticipate this working in practice.

13.13. In setting the acceptable range of deviation from the industry mean, we will not consider:

- regional variations in customer perceptions,
- severe weather events,
- volumes of connections,
- customer interruption (CI) and customer minutes lost (CML) performance, and
- complaints.

13.14. The costs of conducting the survey will be shared across the industry. Ofgem will provide a proportion of funding towards the pilot and will run the pilot survey for the first two years of DPCR5. Following go-live in April 2012, we propose that DNOs will collectively fund and run the surveys subject to the survey design specified by Ofgem. DNOs will be required to report the results back to Ofgem in a format that we will specify. We propose that the funding provided in the overall price control package will be sufficient for DNOs to meet this obligation and other customer obligations.

Complaints metric

13.15. The complaints metric is intended to encourage DNOs to manage customer complaints effectively and resolve them promptly to the satisfaction of their customers. The complaints metric is built around the complaint handling standards and the information that companies are required to record and report in compliance with the standards. Notwithstanding this, for the purpose of the complaints metric DNOs will be required to report complaints from all types of customers including large businesses (which are exempt from the standards). The make-up of the complaints metric is as described in Table 13.3.

Table 13.3 - Composition of the complaints metric

Key measure	Weighting (%)
Percentage of complaints unresolved by the end of the first working day after which the complaint was first received (day +1)	10
Percentage of complaints unresolved after the end of 31 calendar days from the end of the first working day after which the complaint was first received (day +31)	20
Percentage of repeat complaints	50
Percentage of Ombudsman findings against the DNO	20

13.16. The complaints metric is a penalty only element of the broad measure. A combined score will be derived for each DNO based on their performance under each of the elements. Higher scores will indicate poorer performance. There will be a dead band where no penalty will be incurred. The dead band will not be fixed for DPCR5 but will be based on the upper quartile industry performance for the given year. It therefore has the potential to move every year. There will be a sliding scale of penalty whereby the maximum penalty will be set at a score of 70. The incentive rate will be determined annually by dividing total revenue exposed to the complaints metric by the difference between the maximum penalty score of 70 and the industry upper quartile. This detail will be hardwired into licence. Further details are set out in Chapter 12 of the Financial Methodologies document.

13.17. RIGs definitions will be developed to ensure robust and consistent recording and reporting of complaints data by DNOs going forward. An audit regime will be developed alongside the RIGs.

Stakeholder engagement

13.18. This element of the broad measure is designed to encourage DNOs to do more to understand what stakeholders want from the network companies and to reward them where they can demonstrate they have taken this into account in formulating their business plans, and in the design of internal processes and policies.

13.19. We consider stakeholders to include customers and interest groups that are impacted by the DNOs' activities but may not necessarily be the end customer of the DNO. This element of the broad measure is intended to incentivise DNOs to carry out a range of activities including to:

- try out different methods and identify and apply the best ways of eliciting and collecting stakeholder concerns and views,
- identify where a lack of understanding or information stands in the way of stakeholders contributing to the key debates on the strategic development of the networks, and finding ways to address these shortfalls in time for the next price control review,
- identify the top concerns of stakeholders about DNO performance and implementing plans targeted at addressing these concerns,
- identify and understand what types of customers will demand their connection and distribution services in the near future, and tailor the information they provide and their internal systems and processes to meet any specific needs of these customers,
- assess how key groups of consumers might be looking to change their use of the networks and the service they expect and trying out new arrangements, for example making use of the Low Carbon Network fund (LCN fund),
- obtain information from stakeholders to decide on how to target any expenditure under the new worst served customer mechanism, and
- produce robust business plans for DPCR6 that are informed by stakeholder engagement and feedback.

Measurement criteria

13.20. In assessing DNOs' performance under the stakeholder engagement component, Ofgem will focus on the outcomes achieved rather than the engagement process itself. There will be a number of minimum requirements that DNOs must meet before being considered for a reward. These are:

- the DNO has in place an up-to-date engagement strategy addressing how they inform and obtain feedback on the impacts of their business activities from a range of stakeholders,

- a range of stakeholders have been engaged and have commented on the DNO's approach to stakeholder engagement and on the changes the DNO is making in response to the views of stakeholders,

- the DNO has made use of a variety of mechanisms to inform and engage their stakeholders (and possibly demonstrated a year on year improvement), and

- the DNO is adapting its internal processes and policies in response to feedback from stakeholders.

13.21. DNOs that can demonstrate measurable customer service improvements as a result of feedback from their stakeholders could be eligible for a reward. DNOs would need to provide clear evidence of the changes resulting in measurable benefits for customers. This could be demonstrated by customer surveys, data relating to performance under the guaranteed standards and other relevant metrics.

Evaluation

13.22. Ofgem will evaluate performance against the minimum requirements. DNOs will be required to submit an annual summary of their engagement activities at the end of each regulatory year detailing how the minimum requirements have been met. We may seek further evidence as part of our annual audits. DNOs that have met the minimum requirements would be put forward for panel evaluation against the reward criteria described in 13.20. The evaluation would be conducted by an independent panel appointed by Ofgem and would require a presentation and/or submission from the DNO. During the first two years of the scheme, before the broad measure goes live, we intend to trial the stakeholder engagement evaluation process perhaps in parallel with the customer service reward scheme so that DNOs receive feedback on their stakeholder engagement.

14. Telephony incentive scheme

Chapter summary

This chapter details our proposed improvements to the existing telephony incentive scheme in the early part of DPCR5 before it is replaced with the broad measure of customer satisfaction.

Purpose of the incentive

14.1. This incentive is designed to encourage and incentivise good performance on DNOs' telephony responses to customers. DNOs are currently rewarded for average performance scores of 4.5 or above and penalised for average performance scores below 4.1. The telephony incentive scheme is narrow in scope as it only covers the quality of the DNOs' call handling.

Developments since Initial Proposals

14.2. In line with other incentives we have based the penalty and reward limits on RORE basis points although the licence will be expressed in terms of revenue. This revenue exposure will vary by DNO to a small extent as shown in Table 14.1 below.

Details of the incentive

14.3. We propose a number of improvements to the DPCR4 telephony scheme for the first two years of DPCR5, whilst developing the broad measure in parallel to go live in April 2012. The telephony incentive scheme will fall away on 1 April 2012. The design of the incentive will be the same as the DPCR4 scheme with the range of RORE bps exposed to the incentive set at +0.7 and –3.4 per year for the first two years of DPCR5, equating to 1.3 and 6.7 RORE basis points in total for DPCR5, given that this incentive will only operate for the first two years of the period. The DNOs' telephony performance will be based on the results of an ongoing customer survey[37], which will focus on politeness of staff, usefulness of information provided and satisfaction with the speed of response. The survey measures customer satisfaction on a scale of one to five. A minimum of 75 interviews per DNO per month will be undertaken and performance under the incentive will be based on the full regulatory year's performance.

[37] Reference to Accent annual report

Table 14.1 - DPCR5 total downside RORE and annual revenue exposure to telephony

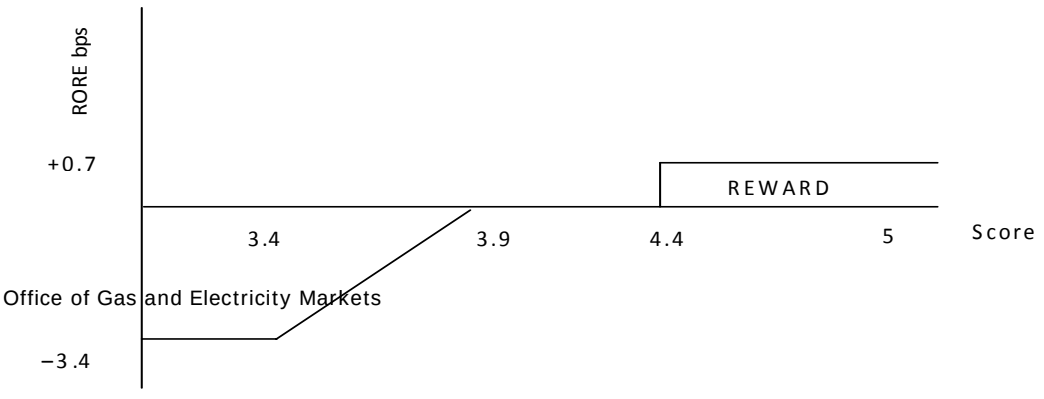
	Telephony upside		Telephony downside	
	Total DPCR5 RORE bps (pre tax)	Revenue exposure £m	Total DPCR5 RORE bps (pre tax)	Revenue exposure £m
CN West	1.3	0.2	6.7	0.9
CN East	1.3	0.2	6.7	0.9
ENW	1.3	0.2	6.7	0.8
CE NEDL	1.3	0.1	6.7	0.5
CE YEDL	1.3	0.1	6.7	0.7
WPD S Wales	1.3	0.1	6.7	0.4
WPD S West	1.3	0.1	6.7	0.6
EDFE LPN	1.3	0.2	6.7	0.8
EDFE SPN	1.3	0.1	6.7	0.7
EDFE EPN	1.3	0.2	6.7	1.1
SP Distribution	1.3	0.2	6.7	0.8
SP Manweb	1.3	0.1	6.7	0.7
SSE Hydro	1.3	0.1	6.7	0.5
SSE Southern	1.3	0.2	6.7	1.0

14.4. We will also include DNOs' unsuccessful calls within the incentive and apply a 75 per cent weighting on them to supplement the telephony survey results and to incentivise DNOs to keep all unsuccessful calls to a minimum. The formula below sets out how unsuccessful calls have been incorporated into the calculation of the telephony score:

Score = (politeness + usefulness + speed)/3 * (1 –(%unsuccessful * 0.75))

14.5. The views of customers dealt with by messaging will be included in the broad measure so that it can be fully piloted before implementation. The calibration of the DPCR5 scheme is shown in the Figure below. On an annual basis, where a DNO scores less than 3.9 they will be subject to a sliding scale penalty. Scores of 3.4 or less incur the maximum penalty of 3.4 basis points. Scores of 4.4 and above lead to a reward of 0.7 basis points. Scores of 3.9 up to but not including 4.4 attract neither a penalty nor a reward.

Figure 14.1 - Calibration of the DPCR5 telephony scheme



15. Worst served customers

Chapter summary

This chapter sets out the background to, and our proposals for, the mechanism to encourage DNOs to improve the service experienced by worst served customers.

Purpose of the incentive

15.1. We propose to introduce a new mechanism to improve performance for those customers experiencing large numbers of interruptions over a number of years. The main Interruptions Incentive Scheme (IIS) does not incentivise DNOs to target these customers, but instead focuses them on making interventions that improve the interruptions performance received by the largest number of customers for a given level of expenditure.

Developments since Initial Proposals

15.2. Following further discussions with DNOs we are proposing that where the 25 per cent reduction in the average number of higher voltage interruptions experienced by worst served customers is not achieved within three years, there should be scope for DNOs to present an evidence case for the investments they have made. The Financial Methodologies document sets out the mechanics for evaluating schemes in DPCR5.

Details of the incentive

15.3. The worst served customers mechanism enables DNOs to log up the costs of carrying out work to improve the reliability of supply for customers who currently receive a poor quality of service. It aims to cover schemes that under the IIS would not go ahead, but in terms of delivering a real tangible difference for customers do have merit. Table 15.1 below sets out the key elements of how this mechanism will operate in DPCR5.

Table 15.1 - Details of the worst served customers proposals

Issue	Proposal
Definition of worst served customer	Customer experiencing on average at least five higher voltage interruptions per year over a three year period, i.e. 15 or more over three years. Additional requirement for a minimum of three higher voltage interruptions in each year.
Required performance improvement	25 per cent reduction in the

Issue	Proposal
	average number of higher voltage interruptions for worst served customers - measured over full three full reporting years post expenditure If this is not achieved then scope for the DNO to provide evidence of the expected long-term benefit of the scheme
Total allowance pot	£42 million over DPCR5 provided on a use-it-or-lose-it basis
Distribution of allowance pot	Based on the number of worst served customers in each eligible DNO see Table 15.2
Cap per worst served customer	£1,000 per worst served customer
Funding arrangements	Logged up and funded ex-post on a net present value neutral basis (as set out in the Financial Methodologies document) provided that performance and eligibility criteria are met
Customer service reward scheme	Will look at communication with worst served customers, innovative schemes and best practice.

15.4. We propose to include communication with worst served customers in the customer service reward scheme and would expect to see greater DNO engagement with such customers.

Table 15.2 - DNO DPCR5 worst served customer allowances

DNO	Allowance £m
CN West	8.0
CN East	4.6
ENW	2.3
CE NEDL	1.3
CE YEDL	2.0
WPD S Wales	3.4
WPD S West	2.7
EDFE LPN	0.0
EDFE SPN	4.7
EDFE EPN	2.3
SP Distribution	2.6
SP Manweb	1.5
SSE Hydro	3.3
SSE Southern	3.2

16. Interruptions Incentive Scheme (IIS)

Chapter summary

This chapter sets out the background to and our proposals for the various elements of the interruptions incentive scheme (IIS) for DPCR5, including overall interruptions and duration targets and refinements to the exceptional events mechanism.

Purpose of the incentive

16.1. The current interruptions incentive scheme incentivises DNOs to deliver a good level of performance in respect of customer interruptions (CIs) and customer minutes lost (CMLs). This incentivises the DNOs to invest in and operate their networks to manage and reduce both the frequency and duration of power cuts experienced by customers. We have been considering the targets per DNO and the strength of the incentive for DPCR5.

Developments since Initial Proposals

Unplanned element of targets

16.2. We are no longer proposing that DNOs whose benchmark CI performance is worse than their current average performance need to close this gap during DPCR5. We are now proposing that the unplanned element of the CI targets for DPCR5 will be based on each DNO's own DPCR4 average performance. This change also has a consequential impact on the CML targets.

16.3. We have made the following refinements to the benchmarking analysis:

- we have combined the first four years of DPCR4 data and calculated a single benchmark, rather than running each year separately and then taking an average of the four sets of results, and
- we have corrected a number of errors in the benchmarking calculations, namely correcting the formula combining all the methodology changes that were indicated in Initial Proposals.

Incentive rates

16.4. In light of consultation responses and further analysis we have changed the CI and CML incentive rates for the following key reasons:

- In Initial Proposals we proposed to move halfway between the DPCR4 incentive rates and those generated from the DPCR5 willingness to pay (WTP) results. We are now moving 100 per cent of the way to WTP based incentive rates.

- Following feedback and additional information we have rescaled business bill sizes and the relative weighting of large business WTP in the calculation of overall WTP across all customers.

- In Initial Proposals we proposed a significant scaling back of the 2008 WTP figures given more recent qualitative customer research carried out in 2009. On reflection this reduction probably overstated the impact of the recession on long-term willingness to pay. We are now applying a smaller reduction, of ten per cent, to the 2008 WTP figures.

- Since Initial Proposals we have attempted to incorporate the proposed IQI rates in setting the final IIS incentive rates. For DPCR5 this has not proved to be feasible given the varying returns on a project depending on when it is undertaken in the period. This is an issue that merits further consideration for future price controls.

Revenue exposure

16.5. Consistent with our policy across all incentives we have set the collar on exposure to IIS in terms of a constant return on regulatory equity (RORE) rather than a constant percentage of base revenue. This collar has been set in light of the holistic RORE settlement. Given the maturity of the data with which we have been able to set targets we are no longer including a cap on the upside of IIS. In Initial Proposals we proposed to include a "true-up" of performance under the scheme across the whole of DPCR5, i.e. the caps and collars would apply to the entire period. We now propose to continue with the methodology used in DPCR4, whereby the penalties and rewards are settled on an annual basis.

Pre-arranged element of targets

16.6. We have made a number of amendments to how we have derived the pre-arranged allowances and how they will be treated in the scheme in DPCR5. We have taken the views of industry into account when determining which elements of forecast expenditure are likely to drive pre-arranged interruptions and minutes lost. We have also applied weights to the relevant expenditure groups to reflect that some activities have a closer relationship with pre-arranged interruptions than others. Given comments on the way in which forecasts were collated and types of activity allocated to the four categories of load, non-load, inspections and maintenance, and tree cutting we have benchmarked the expenditure and pre-arranged forecasts in two ways:

- three separate groups of expenditure and pre-arranged forecasts - load and non-load, inspections and maintenance and tree cutting, and

- the total expenditure and the total pre-arranged forecasts for interruptions and minutes lost.

16.7. We have given DNOs the higher allowance of the two methods.

16.8. Having listened to the views of DNOs, we are not pursuing a pre-arranged "pot" for DPCR5. Instead, we are allocating the pre-arranged allowances for CI and CML evenly across the five years of DPCR5.

Details of the incentive

Overview

16.9. The following tables set out the total RORE basis points downside exposure to the scheme, the equivalent annual collars and the interruptions included within the scheme and their respective weightings.

Table 16.1 - DPCR5 total downside RORE and annual revenue exposure to IIS

	Customer interruptions (CI)		Customer minutes lost (CML)	
	Total DPCR5 RORE bps (pre tax)	Annual revenue exposure £m	Total DPCR5 RORE bps (pre tax)	Annual revenue exposure £m
CN West	37	2.0	102	5.4
CN East	37	1.9	102	5.3
ENW	37	1.7	102	4.7
CE NEDL	37	1.2	102	3.2
CE YEDL	37	1.5	102	4.2
WPD S Wales	37	0.9	102	2.5
WPD S West	37	1.3	102	3.5
EDFE LPN	37	1.7	102	4.6
EDFE SPN	37	1.5	102	4.2
EDFE EPN	37	2.4	102	6.6
SP Distribution	37	1.7	102	4.7
SP Manweb	37	1.6	102	4.4
SSE Hydro	37	1.1	102	3.0
SSE Southern	37	2.3	102	6.3

Table 16.2 - Interruptions included in IIS and their respective weightings

Source of CI/CML	Weighting
Unplanned CI and CML arising on the distribution network	100 per cent for CI and CML
Pre-arranged CI and CML arising on the distribution network	50 per cent for CI and CML
CI and CML arising from distributed generators	100 per cent for CI and CML

Source of CI / CML	Weighting
CI and CML arising from transmission and other connected networks	0 per cent for CI and 10 per cent for CML[38]

Revenue exposure to IIS

16.10. We propose to only collar the downside RORE basis points exposed under the scheme at 7.4 for CI and 20.4 for CML per annum, equating to 139 RORE basis points in total for DPCR5, given that this incentive applies for the entire period. Given our further analysis on the RORE settlement and DNOs' potential scope for outperforming their IIS targets there will be no cap on DNOs' ability to earn upside RORE basis points during DPCR5. Performance against targets will be evaluated annually and penalties and rewards will be settled for each individual year. There will be no true-up at the end of the period.

Overall CI and CML targets

16.11. The IIS will have asymmetric annual rewards and penalties depending on each DNO's performance against their overall targets for the number of customers interrupted per 100 customers (CI) and the number of customer minutes lost per customer (CML). CI and CML performance against targets will be evaluated independently, i.e. a DNO may receive a penalty for CI but a reward for CML. Tables 16.3 and 16.4 set out the annual overall CI and CML targets for DPCR5. Appendix 5 sets out the underlying unplanned and pre-arranged elements of the annual targets.

Table 16.3 - Targets for Customer Interruptions (CIs)

DNO	2010-11	2011-12	2012-13	2013-14	2014-15
CN West	109.9	109.9	109.9	109.9	109.9
CN East	75.7	75.7	75.7	75.7	75.7
ENW	52.9	52.7	52.5	52.4	52.2
CE NEDL	68.3	68.2	68.2	68.1	68.1
CE YEDL	75.3	75.3	75.3	75.3	75.3
WPD S Wales	79.5	79.5	79.5	79.5	79.5
WPD S West	73.6	73.6	73.6	73.6	73.6
EDFE LPN	33.4	33.4	33.4	33.4	33.4
EDFE SPN	85.0	84.2	83.3	82.5	81.7
EDFE EPN	76.1	75.9	75.7	75.5	75.4
SP Distribution	60.1	60.1	60.1	60.1	60.1
SP Manweb	45.6	45.5	45.3	45.1	44.9

[38] Where CMLs are incurred due to upstream incidents in relation to either transmission or generation activities (such as low frequency) as a result of the DNO complying with statutory and/or licence requirements, then none of these CMLs will be included in the IIS.

DNO	2010-11	2011-12	2012-13	2013-14	2014-15
SSE Hydro	77.0	77.0	77.0	77.0	77.0
SSE Southern	73.8	73.2	72.6	72.0	71.4

Table 16.4 - Targets for Customer Minutes Lost (CMLs)

DNO	2010-11	2011-12	2012-13	2013-14	2014-15
CN West	97.0	96.3	95.6	94.9	94.2
CN East	69.0	68.6	68.2	67.8	67.4
ENW	55.6	55.6	55.6	55.6	55.6
CE NEDL	71.3	71.1	70.9	70.7	70.6
CE YEDL	76.0	76.0	76.0	76.0	76.0
WPD S Wales	44.6	44.6	44.6	44.6	44.6
WPD S West	51.0	51.0	51.0	51.0	51.0
EDFE LPN	41.0	41.0	41.0	41.0	41.0
EDFE SPN	87.6	82.9	78.1	73.3	68.5
EDFE EPN	71.1	69.7	68.3	66.8	65.4
SP Distribution	65.5	63.5	61.5	59.5	57.5
SP Manweb	61.1	60.6	60.1	59.6	59.1
SSE Hydro	75.1	75.1	75.1	75.1	75.1
SSE Southern	69.1	68.3	67.5	66.6	65.8

16.12. As explained in Initial Proposals, the CML target setting methodology sets targets for a number of DNOs at the level of their actual performance, which is more challenging than the 2025 benchmarks imply (the tables above show the proposed targets rather than the benchmarks). For consistency, these DNOs receive an additional allowance to ensure that they are not penalised for outperforming our benchmarks and have the same scope for outperformance as other DNOs. We have set this using the same information that has been used to set final targets. The revenue adjustments amount to £21.0 million for WPD S Wales, £27.2 million for WPD S West, £1.7 million for ENW, £1.8 million for CE YEDL and £11.3 million for SSE Hydro in 2007-08 prices.

CI and CML incentive rates for DPCR5

16.13. Incentive rates are based on the results of the DPCR5 customer WTP results, allowing for some scaling back due to the recession. The incentive rates take into account the views of all customer types, with consideration given to the average bill sizes of business customers and the weighting given to customers' WTP. The incentive rates will be uniform, in real terms, across the DPCR5 period.

Table 16.5 - Annual CI and CML incentive rates for DPCR5

DNO	CI incentive rate £m	CML incentive rate £m
CN West	0.11	0.40
CN East	0.12	0.42
ENW	0.11	0.56
CE NEDL	0.07	0.26
CE YEDL	0.10	0.37
WPD S Wales	0.05	0.18
WPD S West	0.07	0.25
EDFE LPN	0.30	0.34
EDFE SPN	0.10	0.36
EDFE EPN	0.16	0.57
SP Distribution	0.09	0.33
SP Manweb	0.07	0.21
SSE Hydro	0.03	0.15
SSE Southern	0.13	0.47

Audits

16.14. We will continue to conduct annual audits for all 14 DNOs using the current streamlined approach, although we will keep this under review during DPCR5 and our approach may change in the period. For each DNO we may also undertake an expanded audit in one of the years of DPCR5. The required accuracy thresholds for the audit will be as set out in Table 16.6.

Table 16.6 - Audit accuracy thresholds for DPCR5

Voltage	Overall accuracy	Initial stage accuracy (smaller sample)
EHV and 132kV	97 %	99 %
HV	95 %	97 %
LV	90 %	93 %

Severe weather exceptional events

16.15. We will evaluate severe weather exceptional events against thresholds based on eight times DNOs' daily average higher voltage fault rate for the last ten years (1999-00 to 2008-09). These thresholds will apply for the entire period and will not be updated on an annual basis.

Table 16.7 - Severe weather exceptional event thresholds for DPCR5

DNO	Threshold	
	Category 1 - Medium severe weather events	Category 2 - Large severe weather events
	8*mean HV and above daily average incident rate	13*mean HV and above daily average incident rate
CN West	65	105
CN East	68	110
ENW	49	80
CE NEDL	37	59
CE YEDL	37	60
WPD S Wales	45	73
WPD S West	59	97
EDFE LPN	19	31
EDFE SPN	48	78
EDFE EPN	85	139
SP Distribution	76	124
SP Manweb	68	110
SSE Hydro	56	91
SSE Southern	66	107

One-off exceptional events

16.16. We will expand the types of incidents eligible for evaluation under the one-off exceptional event mechanism so that asset failures could be considered. As in the current period there would be no automatic exclusion from the incentive scheme of claims meeting the thresholds of 25,000 customers interrupted and/or 2,000,000 customer minutes lost and it would only be the amount above the threshold that would be eligible for exclusion. We would anticipate a limited number of claims under the mechanism, particularly in relation to asset failures. One of the requirements of an evaluation of such claims would be the extent to which there had been similar events in the past. We will also look to how these events sit within the wider outputs framework.

Table 16.8 - Thresholds for one-off events in DPCR5

DNO	CI threshold	CML threshold
CN West	1.0	0.8
CN East	1.0	0.8
ENW	1.1	0.8
CE NEDL	1.6	1.3
CE YEDL	1.1	0.9
WPD S Wales	2.3	1.8
WPD S West	1.6	1.3
EDFE LPN	1.1	0.9
EDFE SPN	1.1	0.9

DNO	CI threshold	CML threshold
EDFE EPN	0.7	0.6
SP Distribution	1.3	1.0
SP Manweb	1.7	1.3
SSE Hydro	3.4	2.7
SSE Southern	0.9	0.7

Short interruptions

16.17. There will be a programme of work during DPCR5 to better record and report short interruptions and also to understand customers' experiences and attitudes to short versus long interruptions. For DPCR5, short interruptions will not be subject to incentives.

Non-domestic customers

16.18. Information provision to all customers including non-domestic customers will be picked up by the broad measure of customer satisfaction. There will be an associated work-stream during DPCR5 to develop, where feasible, more specific interruptions reporting by different classes of customer.

17. Guaranteed standards of performance

Chapter summary

This chapter sets out our proposals for the (non-connections related) guaranteed standards of performance and associated payment levels for DPCR5.

Purpose of the standards

17.1. The purpose of these standards is to provide signals to DNOs to meet certain expected levels of service and to provide payments to end customers in the event of individual standards not being met.

Developments since Initial Proposals

17.2. We have updated all payment levels to reflect inflation over the period April 2005 to November 2009.

17.3. In DPCR4 we introduced an individual payment cap per customer under the severe weather event standards alongside removing exemptions from making payments due to severe weather. This approach has worked well in DPCR4 and we propose to cap the individual GS2 (normal weather conditions standard) payment level for large scale events, where more than 5,000[39] customers are interrupted, at the same level as severe weather events. In conjunction with this we will remove the relevant exemption(s) from the regulations.

17.4. We have introduced an overall revenue exposure cap to payments under the normal weather conditions standard in addition to the overall revenue exposure cap that currently applies to severe weather payments.

17.5. Following discussion with industry, we propose that where a rota disconnection/reconnection policy is employed to share out available load, then customers off for 24 hours or longer, in aggregate, across the entire event should receive a single payment, of £54 for domestic customer and £109 for non-domestic customers. Where the customer is not off for this length of time but the aggregate duration of interruptions during the event are greater than or equal to three hours, then a count of one shall be recorded against this customer for the purposes of the multiple interruption standard.

Details of the standards

17.6. The proposed payment levels for DPCR5 are set out in Table 17.1 below and the DPCR4 levels are set out in brackets.

[39] This aligns with reporting under paragraph 1(c) of Regulation 32 of the Electricity, Safety Quality and Continuity Regulations 2002.

Table 17.1 - Guaranteed Standards of Performance

Reporting code	Service	Performance Level	Guaranteed standards Payments
GS1	Respond to failure of distributors fuse (Regulation 10)	All DNOs to respond within 3 hours on a working day (at least) 7 am to 7 pm, and within 4 hours on other days between (at least) 9 am to 5 pm , otherwise a payment must be made	£22 (£20) for domestic and non-domestic customers
GS2*	Supply restoration: normal conditions (Regulation 5)	Supply must be restored within 18 hours, otherwise a payment must be made. Where a large scale event occurs then supply must be restored within 24 hours, otherwise a payment must be made.	£54 (£50) for domestic customers and £109 (£100) for non-domestic customers, plus £27 (£25) for each further 12 hours up to a cap of £218 (£200) per customer where the interruption is part of a large scale event
GS2A*	Supply restoration: multiple interruptions (Regulation 9)	If four or more interruptions each lasting 3 or more hours occur in any single year (1 April – 31 March), a payment must be made	£54 (£50) for domestic and non-domestic customers
GS4*	Notice of planned interruption to supply (Regulation 12)	Customers must be given at least 2 days notice, otherwise a payment must be made	£22 (£20) for domestic and £44 (£40) for non-domestic customers
GS5	Investigation of voltage complaints (Regulation 13)	Visit customer's premises within 7 working days or dispatch an explanation of the probable reason for the complaint within 5 working days, otherwise a payment must be made	£22 (£20) for domestic and non-domestic customers
GS8	Making and keeping appointments (Regulation 17)	Companies must offer and keep a timed appointment, or offer and keep a timed appointment where requested by the customer, otherwise a payment must be made	£22 (£20) for domestic and non-domestic customers

Reporting code	Service	Performance Level	Guaranteed standards Payments
GS9	Payments owed under the standards (Regulation 19)	Payment to be made within 10 working days, otherwise a payment must be made	£22 (£20) for domestic and non-domestic customers
GS11*	Supply restoration: severe weather conditions (Regulation 6)	Depending on category of event supply must be restored within 24, 48 or a multiple of 48 hours (see Table 17.2 below), otherwise a payment must be made	£27 (£25) for domestic and non domestic customers, plus £27 (£25) for each further 12 hours up to a cap of £218 (£200) per customer
GS12*	Supply restoration: Highlands and Islands (Regulation 7)	Supply must be restored within 18 hours, otherwise a payment must be made	£54 (£50) for domestic customers and £109 (£100) for non-domestic customers, plus £27 (£25) for each further 12 hours

* Customers need to claim under these standards for the remaining standards payments are automatic.

17.7. The thresholds for normal and severe weather conditions are set out in Table 17.2 below.

Table 17.2 - Thresholds for normal and severe weather conditions

	Category 1 - Medium severe weather events	Category 2 - Large severe weather events	Category 3 - Very large severe weather events
DNO	**8* mean HV and above**	**13* mean HV and above**	**35% of exposed customers**
CN West	65	105	347,000
CN East	68	110	445,000
ENW	49	80	256,000
CE NEDL	37	59	218,000
CE YEDL	37	60	362,000
WPD S Wales	45	73	214,000
WPD S West	59	97	278,000
EDFE LPN	19	31	305,000
EDFE SPN	48	78	307,000
EDFE EPN	85	139	561,000
SP Distribution	76	124	228,000
SP Manweb	68	110	172,000
SSE Hydro	56	91	129,000
SSE Southern	66	107	412,000

17.8. We have converted the DPCR4 two per cent revenue cap exposure to the severe weather standard into RORE basis points and applied a constant RORE cap across DNOs such that no DNO has a greater revenue exposure than under the DPCR4 method. We have capped DNOs' exposure to the normal weather standard by translating a common one and half per cent annual revenue exposure into RORE and then applied the minimum RORE exposure to all DNOs. There is no cost pass-through up to these levels. There will be full cost pass-through of any payments that are made beyond the respective level. These caps operate separately, i.e. reaching the severe weather cap in a given year has no bearing on the normal weather cap and vice versa.

Table 17.3 - DPCR5 total downside RORE and annual exposure to the normal and severe weather standards

	Normal weather standard		Severe weather standards	
	Total DPCR5 RORE bps (pre tax)	**Annual revenue exposure £m**	**Total DPCR5 RORE bps (pre tax)**	**Annual revenue exposure £m**
CN West	97	5.1	129	6.8
CN East	97	5.0	129	6.7
ENW	97	4.5	129	6.0
CE NEDL	97	3.1	129	4.1
CE YEDL	97	4.0	129	5.3
WPD S Wales	97	2.3	129	3.1
WPD S West	97	3.4	129	4.5
EDFE LPN	97	4.4	129	5.9
EDFE SPN	97	4.0	129	5.3
EDFE EPN	97	6.2	129	8.3
SP Distribution	97	4.4	129	5.9
SP Manweb	97	4.2	129	5.5
SSE Hydro	97	2.9	129	3.8
SSE Southern	97	6.0	129	7.9

17.9. As with DPCR4 there will be an overall collar on downside exposure to the IIS[40], telephony and the severe weather standards. We have converted the DPCR4 four per cent overall revenue collar exposure to the IIS, telephony and severe weather standard into RORE basis points and applied a constant RORE collar across DNOs such that no DNO has a greater revenue exposure than under the DPCR4 method, this is shown in Table 17.4 below.

[40] Excluding other standards of performance and the broad measure of customer satisfaction

Table 17.4 - DPCR5 total downside RORE and annual exposure collar on the IIS and severe weather standards

	IIS and severe weather standards overall exposure collar	
	Total DPCR5 RORE bps (pre tax)	**Annual revenue exposure £m**
CN West	258	13.7
CN East	258	13.4
ENW	258	12.0
CE NEDL	258	8.2
CE YEDL	258	10.7
WPD S Wales	258	6.2
WPD S West	258	8.9
EDFE LPN	258	11.7
EDFE SPN	258	10.5
EDFE EPN	258	16.7
SP Distribution	258	11.8
SP Manweb	258	11.1
SSE Hydro	258	7.7
SSE Southern	258	15.9

18. Customer service reward scheme

Chapter summary

This chapter details our proposals for the future of the customer service reward scheme including how DPCR4 best practice should be embedded during DPCR5 and what the focus of the DPCR5 scheme will be.

Purpose of the incentive

18.1. We propose to retain the customer service reward scheme that was introduced at DPCR4. The purpose of the scheme is to reward companies that demonstrate best practice for consumers in service areas that cannot be easily measured or incentivised through more mechanistic regimes. We do not intend to penalise DNOs as part of this scheme.

18.2. An important objective of the DPCR5 scheme is to embed the best practice that was recognised during DPCR4 so that customers across the country can benefit from the good practices that have emerged from the scheme so far. We recognise that there will be some overlap between this scheme and the broad measure of customer satisfaction and so we propose that this scheme will be streamlined from April 2012 onwards.

Developments since Initial Proposals

18.3. In Initial Proposals, we consulted on our proposals for embedding DPCR4 best practice and rationalising the scheme once the broad measure of customer satisfaction goes live in April 2012. Most respondents agreed that the embedding of best practice would be best achieved by incorporating it into the minimum requirements of the scheme. We have updated the best practice log to incorporate examples from the 2008-09 scheme (see Appendix 6).

18.4. Most respondents agreed with the logic of rationalising the scheme once the broad measure goes live to focus on supporting vulnerable customers. Some respondents noted that there may be aspects of corporate social responsibility and wider communication that are not captured by the broad measure. We accept that this may be the case and will review the scope, value and viability of the scheme prior to rationalisation in April 2012. There is flexibility in the scheme to only reward a proportion of the available fund.

Details of the incentive

18.5. The total amount of reward available will be £1 million per annum across all DNOs, although as noted above we may reduce this amount from 2012 onwards. The scheme will continue to be voluntary and DNOs' entries will be reviewed by the multi-disciplinary panel appointed by Ofgem. The format of entries will be set out in

the guidance notes issued by Ofgem on an annual basis and are expected to be broadly consistent with the DPCR4 approach.

Scope of scheme

18.6. The first two years of the DPCR5 scheme will cover the established three categories: wider communication strategies, priority customer care initiatives and corporate social responsibility. Within these categories there will be particular emphasis on:

- communication with worst-served customers and innovative schemes,
- approach to understanding customers needs and responding to their needs, and
- assistance for other categories of customers such as vulnerable customers who only have an electricity supply and are not connected to the gas network

18.7. In the remaining years of DPCR5 the scheme will be rationalised. We will consult with industry on which areas should fall away in light of the development of the broad measure.

Embedding DPCR4 best practice

18.8. Adoption of best practice will not be mandatory through a licence condition but it will become a minimum requirement for entering the scheme. Each year, Ofgem will update the best practice log and companies will be required to implement a specified proportion of best practice to be eligible for a reward. Details will be specified in the guidance notes to be issued annually.

19. Network output measures

Chapter summary

This chapter provides our Final Proposals for network output measures. We provide a summary of the key developments since Initial Proposals, including details of our proposed methodology for a qualitative outputs performance assessment at the end of DPCR5, and for financial consequences for a DNO who we determine has not satisfactorily met its outputs and cannot show that its delivered outputs were in customers' interests.

Purpose

19.1. In this price control review we have placed a strong emphasis on the need for DNOs to develop and commit to delivering suitable network output measures in return for the revenues they receive from customers under the price control settlement. Observing performance against the agreed network output measures will allow us to distinguish between those companies that have innovated and found ways to deliver what customers need and expect more efficiently, and those that have deferred investment at the expense of network health and/or performance. These output measures will ensure that the DPCR5 settlement provides value for money to customers, and complements existing output measures on interruptions, network losses and customer satisfaction. The network output measures will encourage DNOs to improve the way they plan and operate their networks, by promoting:

- a focus on long-term asset stewardship, as investment will be driven by the needs (risk) of the network, and
- continued improvement and innovation in asset management and network planning techniques.

19.2. We anticipate that the network output measures developed as part of the DPCR5 settlement will be suitable not only for us to ensure that DNOs deliver the network improvements that customers are paying for, but also as a useful internal planning and management tool for the DNOs. In addition, the network output measures will be a useful tool at DPCR6 to inform the ex-ante assessment of network investment.

Developments since Initial Proposals

19.3. Our Initial Proposals contained the following on network outputs:

- a description of the agreed common methodology for a package of tier two (site/asset specific) network output measures related to asset replacement and general reinforcement expenditure,

- a set of MS Excel spreadsheets (published on the Ofgem website) containing the DNOs' proposed outputs developed in accordance with the common methodology,
- a high-level description of the role of outputs during DPCR5, including the commentary to be provided on changes affecting delivery of the agreed outputs, and
- some options for the nature and quantum of financial consequences for a DNO who we determine has not satisfactorily met its agreed outputs (or an equivalent).

19.4. The DNOs have updated their outputs data since Initial Proposals, in a two-step process. We undertook a detailed process with the DNOs to fully reconcile the outputs with their investment plans. Then the DNOs were asked to update their outputs to take into account the reduction in the network investment allowance due to volumes (not unit costs) that we applied based on our network investment assessment. We now have a set of outputs for all 14 DNOs that are fully consistent with our network investment allowance as published in these Final Proposals.

19.5. Since Initial Proposals we have also worked with the DNOs to develop a comprehensive set of RIGs for output measures, which contains details of:

- the scope and timing of reporting requirements, including definitions, instructions and guidance for completing the reporting templates,
- the scope and timing of our proposed qualitative outputs performance assessment process, which will take place at the end of DPCR5, and
- the methodology to determine financial consequences for a DNO who fails to deliver its agreed outputs (or equivalent).

19.6. We discuss these developments in more detail below.

19.7. In Initial Proposals we indicated that an Impact Assessment (IA) may be included with Final Proposals, pending the outcome of our consultation regarding the financial consequences for a DNO who is deemed not to have met its outputs.

19.8. After careful consideration we have concluded that an IA would not be necessary for the network outputs regime, as we do not consider its implementation meets the definition of 'important' under section 5A of the Utilities Act. The introduction of network outputs merely enhances the Authority's existing ability to assess the efficiency of network investment ex-post, and while there are new reporting obligations and potential financial consequences associated with the new framework we do not consider that it will involve significant additional costs for DNOs. Our objective in developing the methodology for financial consequences has been to maintain a positive incentive at the margin for DNOs to deliver the outputs paid for by customers and in the interests of the network. As such we consider that it

merely results in a more effective cost incentive which works as originally intended by only rewarding genuine efficiencies.

19.9. We have included a qualitative review of the factors we have considered in developing the network outputs regime, which concludes that there is a strong case for its introduction at DPCR5. Our qualitative review is contained at Appendix 7.

Details of the mechanism

Common methodology

19.10. The agreed common methodology for 'tier two' (i.e. site / asset specific) network output measures related to asset replacement and general reinforcement expenditure is unchanged from our Initial Proposals.

19.11. As discussed in further detail below, there are strong reasons for Ofgem and the DNOs to work together on the development of ‘tier one’ measures (i.e. high level system-wide risk metrics) during DPCR5, by building on or aggregating site or asset specific tier two measures. Once developed these measures will form an integral part of the common methodology.

Agreed Network Outputs

19.12. Applying the common methodology described in Initial Proposals, each of the DNOs has now provided us with a finalised set of outputs data. These outputs are fully reconciled with the DPCR5 network investment baselines for asset replacement and general reinforcement.

19.13. The DNOs' outputs are provided as a set of Excel spreadsheets on the Ofgem website with Final Proposals. These outputs form part of the overall DPCR5 package, and will become the agreed network outputs (i.e. the baseline, relevant for assessment purposes) once the package as a whole is accepted.

Reporting requirements and timetable

19.14. Since Initial Proposals, and in consultation with the DNOs, we have developed comprehensive RIGs covering network outputs. The RIGs contain a high level statement on the objectives of the regime, as well as requirements with respect to:

- the form and manner in which, and the frequency with which, outputs information must be provided to Ofgem,
- commentary to be provided by DNOs when providing outputs information, and

- the form and manner in which Ofgem's outputs performance assessment process is to take place, and a description of how the outcomes of that process are to be implemented.

19.15. Under the RIGs, the DNOs will be required to report their actual output performance on an annual basis, as well as provide commentary describing the changes that have impacted output performance relative to the baseline agreed outputs. In addition we will conduct a mid-period review (after year two of DPCR5) to assess performance and progress towards achieving the agreed outputs.

19.16. The RIGs also contain details on the scope and consequences of our qualitative outputs performance assessment process, which will take place at the end of DPCR5. This is discussed further below.

Qualitative outputs performance assessment process

19.17. Ofgem is to conduct an outputs performance assessment at the end of DPCR5 and consult on the outcome as part of the DPCR6 process. The purpose of the performance assessment is to determine whether or not a DNO has satisfactorily delivered a package of outputs consistent with the change in the level of risk funded by its customers through the DPCR5 settlement. At a high level, this requires DNOs to provide information to demonstrate that the programme of work actually delivered over DPCR5 was in customers' best interests, and for us to qualitatively determine whether or not this is the case.

19.18. If we qualitatively determine that a DNO has satisfactorily delivered its outputs (or equivalent) over DPCR5 there will be no further action taken under this framework - the IQI incentive rate is applied to any under or over spends in the normal way.[41] For those DNOs who satisfactorily deliver DPCR5 outputs we would expect to be more confident in the DNO's DPCR6 forecast network investment and the associated outputs. If however we qualitatively determine that a DNO has not satisfactorily met its outputs (or an equivalent), financial consequences will apply at DPCR6. This is explained in more detail below.

19.19. As part of the qualitative performance assessment process, accompanying the outputs data DNOs must provide evidence regarding each of the changes which have materially impacted outturn delivery during DPCR5, relative to the baseline agreed outputs. These changes can include:

- changes to input data underlying the outputs (e.g. asset condition data),
- changes to assessment techniques / calculation methodology used to assign rankings to assets / sites, and

[41] The final allowed capital expenditure may be subject to a review of the DNOs' structure of charging methodology.

- changes due to external factors (e.g. exceptional events, speed of economic recovery, planning / resource constraints).

19.20. DNOs must then explain the asset management decisions taken in response to these changes (i.e. reprioritisation of activities), and provide evidence of the impact on the delivered outputs. In doing so the onus will be on DNOs to justify that they have delivered a package of outputs consistent with the change in the level of network risk funded by their customers through the DPCR5 settlement.

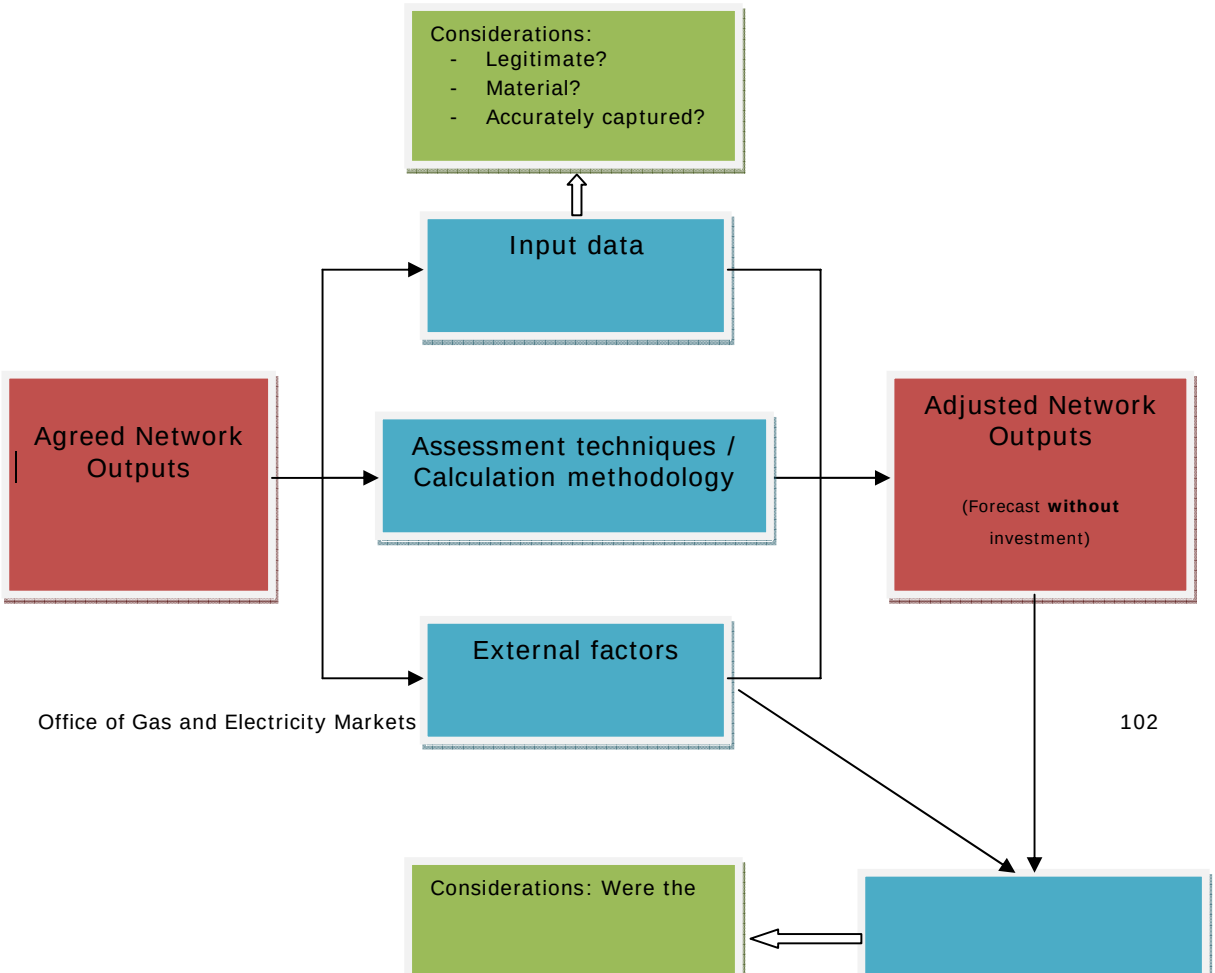
19.21. Taking all this information into account, we will qualitatively assess:

- whether the changes identified by the DNO are legitimate, material and accurately reflected in the updated outputs data, and
- the efficiency and efficacy of the asset management decisions taken by the DNO in response to each of the material changes identified.

19.22. We will then determine at a high level the outputs that should have been delivered (the 'adjusted network outputs'). In doing so the overriding objective is to ensure that the adjusted network outputs reflect the best network risk outcome for customers given: (a) the impact of all material changes identified; and (b) the change in the level of network risk funded by customers via the settlement.

19.23. The qualitative assessment process is summarised in Figure 19.1 below.

Figure 19.1 - Qualitative outputs performance assessment



19.24. We will apply a number of high-level principles in assessing the efficiency and efficacy of a DNO's asset management decisions, including:

- efficient reprioritisation of activities is expected and encouraged – DNOs must retain the flexibility to respond quickly to new information and will not be penalised for doing the right thing in the interests of the network,
- further improvement and innovation in asset management techniques should be encouraged not hindered by the performance assessment process, and
- significant issues with the outputs delivered need to be identified before it can be qualitatively determined that a DNO has not delivered (or is not expected to deliver) the adjusted network outputs.

19.25. We recognise that in the absence of holistic 'tier 1' network output measures, DNOs will need to demonstrate the efficiency of their reprioritisation decisions (i.e. trade-off of 'tier 2' network outputs) qualitatively. While a qualitative assessment is reasonable for DPCR5, we consider that the development of tier 1 network output measures over time represents a logical evolution of this process. Tier 1 measures will assist the DNOs in explaining the asset management decisions taken in response to new information, and Ofgem in assessing whether the outcome is in customers' best interests. For these reasons we are committed to working with the DNOs to develop tier 1 network output measures over DPCR5, by building on or aggregating the site and asset specific tier 2 measures which have been developed for the DPCR5 settlement.

Financial consequences for a failure to deliver outputs

19.26. As part of Initial Proposals we consulted on a number of options to impose financial consequences on a DNO deemed to have failed to deliver its agreed outputs. In general, while acknowledging the need to protect customers, most respondents were of the view that it is too early to impose financial consequences for DPCR5, given that the methodology is newly developed and untested.

19.27. After carefully considering these responses, we think that it is important to have financial consequences in place for DPCR5 for a DNO who fails to deliver the agreed outputs (or equivalent). Without consequences in place, customers are not adequately protected - DNOs would continue to retain around 50 per cent of any underspend achieved over the period (for example) even if they are deemed to have under-delivered on outputs. Providing a strong incentive to deliver a set of outputs consistent with what the network requires and what customers have paid for via the settlement represents a significant step forward in the regulatory framework. Our proposed methodology for calculating financial consequences results in a more effective cost incentive which works as originally intended by only rewarding genuine efficiencies.

19.28. We understand the views of interested parties on the risks associated with imposing financial consequences in a newly developed and untested area. Rather than an argument against imposing financial consequences for a failure to deliver, we see this as an argument for allowing sufficient flexibility and scope for DNOs to respond to new information and to further improve their asset management practices over DPCR5. The qualitative assessment process described above, which has been developed in close consultation with the DNOs, explicitly recognises the need to provide flexibility to DNOs and to not constrain further innovation. Provided a DNO is able to explain its investment decisions in terms of customers' interests, we believe this process provides ample protection.

19.29. We have developed a methodology for determining the financial consequences for a DNO who we qualitatively deem not to have met its outputs. In doing so we have given careful consideration to the issue of compatibility with the cost incentive. Our proposed methodology is as follows:

- value the difference between the DNO's delivered outputs and the adjusted network outputs (i.e. the 'network outputs gap'), and
- apply an incentive rate to the network outputs gap to calculate a revenue adjustment at DPCR6.

19.30. To value the network outputs gap, we will calculate the difference in volumes delivered compared to the volumes implicit in the adjusted network outputs, and then multiply this by the higher of the DNO's actual and our forecast unit costs. We will use the higher of these two unit cost assumptions to ensure that the incentive to deliver outputs is maintained for a DNO with higher unit costs than our benchmark (i.e. making our efficiency challenge on units costs effectively bind).

19.31. We propose to use a marginally (2.5 per cent) higher incentive rate than that to be applied to network-related costs for DPCR5. This is to ensure that, at the margin, DNOs will have a positive incentive to deliver outputs rather than fail outputs and accept a financial adjustment. The revenue adjustment applied for a failure to deliver outputs will be uncapped, consistent with the cost incentive.

19.32. We recognise that in practice the performance assessment process will take place on the basis of a one-year forecast (i.e. at the end of year four). Therefore in the event that we determine a DNO has not delivered its outputs and apply a revenue adjustment at DPCR6, there may be a need to 'true-up' the adjustment at the end of the first year of DPCR6, once the final year of DPCR5 outputs data is received.

High-value projects

19.33. DNOs are proposing to undertake a significant number of large investment projects each in excess of £15m ('high-value projects'), which together account for around £0.7 billion of network investment during DPCR5. There is some uncertainty over whether these projects will go ahead during DPCR5 or whether issues such as

planning consents or resourcing constraints will delay them. We are concerned that our output measures will not fully capture whether these specific projects have gone ahead, and we need to ensure that customers only pay where investment has been made.

19.34. In Initial Proposals we set out a number of options for the treatment of these costs, and after considering responses and undertaking further discussion with the DNOs, we propose that high-value projects be subject to the following treatment for DPCR5:

- an ex-ante allowance has been included in our baselines (subject to an efficiency adjustment where appropriate),
- the DNOs will be required to commit to project specific outputs, and
- if outputs are not delivered an adjustment will be made based on the 'outputs gap'.

19.35. Our assessment of output delivery for these high-value projects and calculation of any 'output gap' will be consistent with the approach outlined above for general reinforcement and asset replacement.

20. Innovation Funding Incentive (IFI)

Purpose of the incentive

20.1. We propose to retain the Innovation Funding Incentive (IFI) in DPCR5 to part-fund technical research and development (R&D) on the distribution networks.

Developments since Initial Proposals

20.2. The responses to Initial Proposals all supported our proposal to retain IFI, which is broadly considered to be working well.

20.3. IFI funding can currently be used to fund internal company expenditure (as opposed to commissioning third parties to undertake work) but this is capped at 15 per cent of the total IFI funding in each year, unless otherwise agreed with Ofgem (this was instigated to encourage third party involvement). Following our Initial Proposals we received questions on why we proposed to retain the 15 per cent cap when we also stated that we would allow companies to individually seek our consent to change the 15 per cent figure to 100 per cent. We have considered removing the 15 per cent cap, but have concluded that we still want the visibility and expect the cap to be removed by exception.

Details of the incentive

20.4. We propose that the pass-through rate will be flat throughout DPCR5, set at the average DPCR4 level of 80 per cent.

20.5. We will retain the existing IFI limit, where costs eligible for IFI can be passed through up to an annual total of 0.5 per cent of DNO combined (generation and demand) network revenue, which should amount to a total sum of around £20m per year under the new price control.

20.6. Funding will remain on a use it or lose it basis, but as for DPCR4, a company will be allowed to carry forward up to 50 per cent of the maximum allowable IFI funding for a given year. Cumulative carry forward will not be allowable.

20.7. We propose to allow IFI funding to be used to fund internal company expenditure (as opposed to commissioning third parties to undertake work) up to a limit of 15 per cent of the total IFI funding in each year, unless otherwise agreed with Ofgem.

20.8. It is our intention that the IFI will operate alongside the new low carbon networks fund (LCN fund). The IFI will fund technical R&D whilst the LCN fund will fund trials on the distribution network focussed on low carbon initiatives.

21. Equalising incentives and the information quality incentive

Chapter summary

This chapter sets out our decision to equalise incentives through an enlarged information quality incentive (IQI).

Purpose of the incentives

21.1. The incentives to manage different types of costs under the DPCR4 price control are not equal. These imbalances may distort the decisions that DNOs need to make between capex and opex solutions and create boundary issues. This is not in customers' interests as it may lead to DNOs seeking to outperform the settlement by favouring capex over opex (or vice versa). This may lead to inefficient network development and higher charges for customers in the short or long term.

21.2. These rules create two undesirable effects:

- Incentives are distorted towards adopting capex rather than opex solutions. This means that DNOs are not incentivised to minimise total lifetime costs as they are sometimes better off by adopting a capex solution rather than a cheaper opex solution due to the way that the different expenditures are treated.
- Boundary issues are created. There is an incentive to record expenditure in the areas with the highest rates of capitalisation even if the expenditure was not technically in that area. This requires significant policing of the cost reporting of DNOs.

21.3. Under our proposals all network-related expenditure would face the same incentives – the distortion of incentives between different network solutions would be removed and the boundary issues in this area would be eliminated. Given the need to reduce carbon emissions to tackle climate change, it is also important that the price control does not reduce the incentive on DNOs to adopt solutions that do not involve investment in network assets such as demand-side management or contracting with distributed generation to manage constraints.

21.4. Our approach to equalising the incentives for these network related costs is to apply the IQI to all of these network-related costs so that they are all subject to the resulting IQI incentive strength. The purpose of the IQI is to incentivise the provision of good quality information by the DNOs as part of their business plan submissions.

Developments since Initial Proposals

21.5. In the responses to Initial Proposals some DNOs raised concerns that the proposed speed of money for DPCR5 was inappropriate and did not represent a continuation of the DPCR4 speed of money. We have considered these arguments but have decided not to change our policy in this area. Chapter 2 of the Financial Issues document contains a more detailed discussion of the DNOs' arguments and the reasoning behind our decision on this point.

21.6. Since Initial Proposals, the following expenditure has been added to the IQI: flooding, BT21st Century, and traffic management administration costs. The reasons for these changes are set out below:

- Flooding was only excluded from the IQI at Initial Proposals due to an error. Table 19.1 of the Incentives and obligations document at Initial Proposals set out that we intended to include these costs within the IQI.
- We have now undertaken a cost assessment of BT21st Century costs and believe there is sufficient certainty surrounding these costs for them to be included within the IQI.
- Traffic management administration costs have been added to the regressions of Group II indirects. This was done for two reasons: some DNOs had not removed these costs from their historical engineering, management and clerical support (EMCS) figures and thus they were already included, and for the DNOs that did extract these costs there was a significant variation between them, suggesting that the same activities were not being reported.

21.7. There have been no changes to the preferred IQI matrix presented at Initial Proposals.

Details of the incentives

Costs in the equalised incentive

21.8. Table 21.1 below sets out a revised version of the table from Initial Proposals document with the costs to face the equalised incentive and the IQI. This table reflects the changes discussed in the Developments since Initial Proposals section above.

Table 21.1 - Costs to face the equalised incentive and the IQI

	Costs facing equalised incentives	Costs not facing equalised incentives
Costs within the IQI	Load-related investment (including shared-asset connections expenditure)	None
	Asset replacement investment	
	Technical losses and other environmental expenditure	
	Flooding expenditure	
	Quality of service expenditure (excluding worst served customers)	
	Network operating costs	
	Indirects driven by both network investment and network operating costs	
	Network investment driven indirects	
	Workforce renewal	
	Non-relevant DG expenditure	
	Substation electricity	
	Island generation	
	Wayleaves	
	Underwater cables	
	BT21st Century expenditure	
Costs outside the IQI	HILP investment	Relevant DG expenditure
	Critical national infrastructure expenditure	Business support costs
	Black start capability and emergency batteries	Non-operational capex
	Rising and lateral mains	Discretionary investment
		Traffic management costs (excluding admin)
		Sole-use connections expenditure
		Pensions
		Worst served customers expenditure
		Undergrounding expenditure

21.9. The definitions of some of the cost items in the table are as follows:

- Business support costs include the following elements: CEO costs, finance and regulation, HR, network policy, property, information systems (IS), and insurance.

- Indirects driven by network investment and network operating costs include the following activities: engineering management and clerical support (EMCS), traffic management admin costs, mapping, control centre, call centre, stores, health and safety.

- Network investment driven indirects include project management and network design.

21.10. There will be an exception for the treatment of workforce renewal costs. Funding for this activity will be provided on a use it or lose it basis. This means that the DNOs will retain none of the benefit of any under-spends (i.e. a zero per cent incentive strength) and will face the equalised incentive strength on any over-spends (the same treatment as costs facing the equalised incentive). Further details of our policy in this area can be found in Chapter 4 of the Cost Assessment document.

Speed of money

21.11. The speed of money will be the same as that proposed at Initial Proposals:

- 85 per cent of expenditure covered by the equalised incentive will be funded as slow money over 20 years through the RAV.

- The remaining 15 per cent of expenditure covered by the equalised incentive will be funded as fast money which is expensed and funded in the year of expenditure.

- Business support costs, non-operational capex, and traffic management costs (excluding administration costs) which all sit outside the equalised incentive will be 100 per cent funded as fast money.

IQI matrix

21.12. We have decided to retain the same IQI matrix that was presented at Initial Proposals. This is presented below in Figure 21.1.

Figure 21.1 - DPCR5 IQI matrix

Ratio of forecast to baseline	95	100	105	110	115	120	125	130	135	140
Incentive rate	0.53	0.50	0.48	0.45	0.43	0.40	0.38	0.35	0.33	0.30
Allowed expenditure	98.75	100.00	101.25	102.50	103.75	105.00	106.25	107.50	108.75	110.00
Additional income	3.09	2.50	1.84	1.13	0.34	-0.50	-1.41	-2.38	-3.41	-4.50
Actual expenditure										
90	7.69	7.50	7.19	6.75	6.19	5.50	4.69	3.75	2.69	1.50
95	5.06	5.00	4.81	4.50	4.06	3.50	2.81	2.00	1.06	0.00
100	2.44	2.50	2.44	2.25	1.94	1.50	0.94	0.25	-0.56	-1.50
105	-0.19	0.00	0.06	0.00	-0.19	-0.50	-0.94	-1.50	-2.19	-3.00
110	-2.81	-2.50	-2.31	-2.25	-2.31	-2.50	-2.81	-3.25	-3.81	-4.50
115	-5.44	-5.00	-4.69	-4.50	-4.44	-4.50	-4.69	-5.00	-5.44	-6.00
120	-8.06	-7.50	-7.06	-6.75	-6.56	-6.50	-6.56	-6.75	-7.06	-7.50
125	-10.69	-10.00	-9.44	-9.00	-8.69	-8.50	-8.44	-8.50	-8.69	-9.00
130	-13.31	-12.50	-11.81	-11.25	-10.81	-10.50	-10.31	-10.25	-10.31	-10.50
135	-15.94	-15.00	-14.19	-13.50	-12.94	-12.50	-12.19	-12.00	-11.94	-12.00
140	-18.56	-17.50	-16.56	-15.75	-15.06	-14.50	-14.06	-13.75	-13.56	-13.50
145	-21.19	-20.00	-18.94	-18.00	-17.19	-16.50	-15.94	-15.50	-15.19	-15.00

21.13. Chapter 8 of the cost assessment document presents the results from the application of this matrix to DPCR5.

How our proposals on equalised incentives and the IQI fit together

21.14. In this section we set out how our proposals in this area fit together. The steps below match up with the numbered boxes in Figure 21.2 which provides a worked example. The worked example makes a number of simplifications which are detailed below. The figures within the example have been generated for the purposes of the example only and do not represent a particular DNO or an average view of the DNOs.

1. For each of the cost elements subject to the IQI incentive given in Table 21.1 above, Ofgem has produced a baseline and the DNOs have submitted a forecast. These assessments will be in 2007-08 prices and will include any expected efficiency improvements but will not include assumptions for real price effects (RPEs). The Ofgem baselines and the DNO forecasts are aggregated across the DPCR5 period and a ratio of these two elements is taken to provide the DNO:Ofgem ratio.

2. The DNO:Ofgem ratio is then used as the input into the IQI matrix which provides: an IQI incentive strength, an expenditure allowance, and an additional income term.

3. For the given RAV additions percentage (85 per cent) the IQI outputs from step 2 are then split between the fast and slow pots. The fast pot receives a 100 per cent incentive rate, 15 per cent of the expenditure allowance, and all of the additional income. The slow pot receives an incentive strength such that the weighted average between the fast and slow pots is equal to the IQI incentive strength from step 2, and the remaining 85 per cent of the expenditure allowance.

4. The fast and slow expenditure allowances, along with the additional income, are then allocated between the DPCR5 years. This is done using the weights implied by the forecasts provided in the DNOs' business plans so that it matches their

planned profile of expenditure. The worked example divides the allocations equally across all years as a simplification. It is at this stage that we add our RPE assumptions to the allowances - these will reflect the additional expenditure required by applying the RPE assumptions to the Ofgem baseline. For simplification, the worked example does not include an adjustment for RPEs.

5. We then consider the expenditure outturn. In each year, the relevant IQI expenditure is aggregated and then split between the fast and slow pots using the RAV additions percentage. This allocates 15 per cent of the DNO's actual expenditure to the fast pot and the remaining 85 per cent to the slow pot. This allocation makes no distinction between opex and capex.

6. When we consider expenditure outturn in the fast pot, the DNOs are fully exposed to any under- or over-spends relative to the fast pot allowance. The DNOs receive the additional income through this fast pot.

7. In the slow pot, any deviations between actual expenditure and the allowance are subject to the slow pot incentive strength through the RAV rolling incentive. This is designed to function along the lines of the DPCR4 capex rolling incentive. Further details of the RAV rolling incentive can be found in Chapter 2 of the Financial Methodologies document.

8. The final consideration is the costs that lie outside the IQI but fall within the equalised incentive framework. These costs, such as HILP costs, are set out in the bottom left of Table 21.1 above. These costs are all treated as logged-up and/or reopener items. An allowance will either be set at the time of a reopener or at DPCR6 after an ex post efficiency review. This allowance is then split between a fast and slow pot using the RAV additions percentage. This allowance will include our assumptions for any efficiency improvements and RPEs. Actual expenditure is then split between the pots in the same way. Any deviations between the allowances and actual expenditure are treated in the same way as those in steps 6 and 7 - full exposure in the fast pot and the slow pot incentive strength applies in the slow pot through the RAV rolling incentive. Further details of our proposals for logging up and reopeners can be found in Chapter 2 of the Financial Methodologies document.

Figure 21.2 - Worked example of our proposals for IQI and equalising incentives

Green cells are inputs
Yellow cells are calculations

All figures have been rounded to 1 decimal place

(1) IQI matrix inputs (for entire DPCR5 period)

	Ofgem baselines:	DNO forecasts:
Network investment	65.0	70.0
Network operating costs	20.0	22.0
Closely associated indirects	15.0	18.0
Total	100.0	110.0
DNO:Ofgem ratio	110.0	

(2) IQI outputs using matrix with stronger incentive rates

IQI incentive strength	45.0%
Expenditure allowance	102.5
Additional income	1.1

(3) Split between fast and slow pots

RAV additions percentage	85.0%
FAST POT:	
Incentive strength	100.0%
Expenditure allowance	15.4
Additional income	1.1
SLOW POT:	
Incentive strength	35.3%
Expenditure allowance	87.1

(4) Annual allowances

	2010-11	2011-12	2012-13	2013-14	2014-15
Fast pot expenditure allowance	3.1	3.1	3.1	3.1	3.1
Fast pot additional income	0.2	0.2	0.2	0.2	0.2
Slow pot expenditure allowance	17.4	17.4	17.4	17.4	17.4

(Equal allocations assumed across all years in this example)

(5) Expenditure outturn

	2010-11	2011-12	2012-13	2013-14	2014-15
Network investment	13.1	13.6	13.5	13.3	13.7
Network operating costs	4.2	3.9	4.0	4.2	4.1
Closely associated indirects	3.0	2.9	3.2	3.1	3.3
Total	20.3	20.4	20.7	20.6	21.1
Fast pot expenditure	3.0	3.1	3.1	3.1	3.2
Slow pot expenditure	17.3	17.3	17.6	17.5	17.9

(6) Fast pot outturn

	2010-11	2011-12	2012-13	2013-14	2014-15
Additional income	0.2	0.2	0.2	0.2	0.2
Expenditure allowance	3.1	3.1	3.1	3.1	3.1
Actual expenditure	3.0	3.1	3.1	3.1	3.2

Additional income is added to allowed revenues in each year
The DNO is exposed to 100% of any difference between the allowance and expenditure

(7) Slow pot outturn

	2010-11	2011-12	2012-13	2013-14	2014-15
Expenditure allowance	17.4	17.4	17.4	17.4	17.4
Actual expenditure	17.3	17.3	17.6	17.5	17.9

Differences between the allowance and expenditure will face the incentive strength below
Slow pot incentive strength: 35.3%
This will be applied through the RAV rolling incentive

(8) The equalised incentive strength from the IQI is also applied to some other costs that are outside the IQI, e.g. HILP costs

	2010-11	2011-12	2012-13	2013-14	2014-15
Ofgem allowance (total)	10.0	10.0	10.0	10.0	10.0
Fast pot allowance	1.5	1.5	1.5	1.5	1.5
Slow pot allowance	8.5	8.5	8.5	8.5	8.5
Actual expenditure	9.6	9.7	10.3	10.0	9.7
Fast pot expenditure	1.4	1.5	1.5	1.5	1.5
Slow pot expenditure	8.2	8.2	8.8	8.5	8.2

DNOs have 100% exposure to any over- or under-spends in the fast pot
Differences between the slow allowance and expenditure will face the incentive below
Slow pot incentive strength: 35.3%
This will be applied through the RAV rolling incentive

Appendices

Index

Appendix 1 - Summary of responses to the Initial Proposals consultation document and September update letter

1.1. A summary of the responses received to the Initial Proposals documents and the September Update have been included as Supplementary Appendices to the Final Proposals - Core document (144a/09).

Appendix 2 – Update on legal drafting for DPCR5

1.1. This appendix is intended to provide an update on the progress of our legal drafting to implement Final Proposals. By legal drafting we refer to licence conditions, statutory instruments and regulatory instructions and guidance (RIGs).

1.2. In Initial Proposals we explained the process for modifying each of these legal instruments[1]. We also set out in our Initial Licence Drafting Consultation[2] the anticipated timetable for these processes, aimed at ensuring that all necessary changes are made in advance of 1 April 2010 when it is intended that our Final Proposals will take effect.

1.3. To date, we have sought and received views on our initial legal drafting as follows:

- On modifications to both standard and special licence conditions, and
- On a new and an amended statutory instrument, namely the Electricity (Connection Standards of Performance) Regulations 2010 and the Electricity (Standards of Performance) Regulations 2010 (which would replace the current Electricity (Standards of Performance) Regulations 2005)[3].

1.4. Throughout the legal drafting process, we have been greatly assisted by the peer review function of the DPCR5 legal drafting working group (LDWG) which comprises representatives from Ofgem and the DNOs[4]. We will continue to meet with the LDWG into next year until the legal drafting is finalised.

Next steps

Licence conditions

1.5. We intend to publish our second consultation document on the licence conditions on 18 December 2009. This document will include the licence conditions necessary to make our proposals for DPCR5 effective. It will also include any data or licence condition specific to any DNO where required. The deadline for responses will be 18 January 2010. This will be the final informal consultation on the licence conditions. A statutory licence consultation will then take place in February next year.

Statutory instruments

1.6. We intend on 11 December 2009 to publish a second open letter on the two statutory instruments mentioned above (one of which will introduce new regulations on connections guaranteed standards of performance and one of which will amend existing regulations on guaranteed standards of performance). We then intend to

hold a statutory consultation in relation to the statutory instruments (regulations) in January 2010.

RIGs

1.7. We intend to publish an open letter consultation on the RIGs on 14 December 2009, setting out the progress so far and the timescales for completing the RIGs. The RIGs accompany certain licence conditions that contain reporting requirements on the DNOs (e.g. business carbon footprint, network outputs), and include definitions and related instructions and guidance for collating the specified information set out in the relevant licence condition. We then plan to consult on the final RIGs, including the associated spreadsheets, setting out the reporting requirements in February 2010, alongside the statutory licence consultation. This will enable the DNOs to review their reporting obligations at the same time as reviewing the proposed licence drafting changes for DPCR5.

Appendix 3 - Return on regulatory equity exposure

1.1. A number of our incentives have an exposure which has a cap or a collar defined in terms of the return on regulatory equity (RORE) basis points (bps). This appendix provides further details on our approach in this area.

1.2. At DPCR4 the exposure to incentives was typically defined as a percentage of allowed revenue. This meant that the returns that different DNOs could earn from the incentives were related to the ratio of regulatory equity (i.e. the equity regulatory asset value) to allowed revenues. This ratio varied by DNO as did the potential returns.

1.3. For DPCR5 we have decided to use return on regulatory equity as a standard measure of exposure for the different incentives. This ensures that each incentive has the same potential impact on returns across all DNOs and should encourage the same managerial effort.

1.4. As part of our holistic approach to calibrating the DPCR5 settlement we assigned various RORE exposures to the different incentives. The following is a worked example of how we have converted these RORE exposures into revenue caps and collars. Consider an incentive with a pre-tax RORE cap of 100bps, and a DNO with an equity regulatory asset value (RAV) of £1 billion in each year of DPCR5. The incentive operates in each year of DPCR5. The total pre-tax exposure to the incentives is calculated as the RORE exposure multiplied by the five year total of the equity RAV over DPCR5 - i.e. 100bps * £5 billion = £50 million. This £50 million figure represents the total amount that the DNO can earn from the particular incentive as defined at DPCR5. For incentives with an annual cap (or collar) we have divided this total by the five years over which the incentive applies in DPCR5. In this example the annual cap for the DNO in question would be £10 million. In practice the annual cap will depend on the size of the regulatory equity of each DNO.

1.5. The charge restriction conditions of the DNOs' licences will refer to these caps and collars as appropriate so that they bind in the intended way.

1.6. Some of our incentives (such as telephony) do not operate for the full five years of DPCR5. In these cases we have used the sum of the equity RAV over whole DPCR5 period multiplied by the proportion of the period that the incentive is in operation (e.g. 3/5 if in operation for three of the five years) to determine the total revenue exposure for each DNO. We have calculated annual caps by dividing the total revenue exposure by the relevant number of years that the incentive operates.

Appendix 4 – Connections: Updated impact of regulated margin on connection costs and market size

Update on Impact Assessment - Connections Incentives and Obligations

1.1. Since Initial Proposals, there have been a number of developments in our connections policy which will have an overall financial impact on connection customers and DNOs. In terms of financial impact on customers, a key development since Initial Proposals has been our decision to now include some indirect costs associated with connections in the expenditure from which a DNO can earn the regulated margin. This policy is set out in Chapter 12.

1.2. Table 1 below is as an update of Table 2 from Appendix 8 (Impact Assessment: Connections Incentives and Obligations) of the Initial Proposals' Incentives and Obligations document. This table reflects the change in policy described above.

1.3. In order to forecast the impact of the 4 per cent margin associated with indirect costs, we apportioned the indirect connection expenditure provided by DNOs in their Forecast Business Plan Questionnaires (FBPQs) across the individual market segments of the sole use only and sole use element of shared categories of forecast expenditure. We did this by pro-rating the equivalent direct expenditures which were provided by DNOs in their FBPQs. We then calculated the contestable indirect costs based on the contestable/non-contestable split of work forecast by DNOs in each of the market segments. A four per cent margin was applied to each element to demonstrate the overall impact of the regulated margin on indirect costs and connection charges overall. Our policy towards the 4 per cent margin on direct costs has not changed since Initial Proposals. However, some DNOs have submitted revised forecasts in this area which has increased the anticipated direct margins for the industry from £29.87m to £30.22m. We estimate that the overall impact of our decision to include some indirect costs related to connections activity will lead to an overall increase in the size of margin earned across all DNOs by approximately £10m over the DPCR5 period.

1.4. An addition to the table since Initial Proposals is the inclusion of a new market segment in the FBPQ reporting template which covers LV connections involving an element of upstream EHV work.

Table 1 - Revised forecast impact of proposed regulated margin over the three year period of DPCR5 (2010-2013)

	Total Market (£m)		Contestable (£m)		Margin (£m)		Total Market W/ 4% margin in relevant segments (£m)
MARKET SEGMENT	**direct**	indirect	**direct**	indirect	**direct**	indirect	directs & indirects
Small scale LV domestic connections 1-4 premises & One-off industrial & commercial single or three phase whole current metering	229.9	89.6	152.7	60.4	-	-	319.4
All other LV (with only LV work)	241.8	95.4	192.2	74.4	7.7	3.0	347.9
LV end connections involving HV work	293.5	101.6	272.8	93.0	10.9	3.7	409.7
HV end connections involving only HV work	89.6	30.1	70.0	22.3	2.8	0.9	123.4
LV end connections involving EHV work	22.8	9.2	19.8	7.8	0.8	0.3	33.1
HV end connections involving EHV work	40.2	14.6	33.3	14.6	1.3	0.6	56.7
EHV end connections involving only EHV work	80.9	36.2	72.2	31.6	2.9	1.3	121.2
HV or EHV connections involving 132kV work	0.6	0.4	0.3	0.2	0.0	0.0	1.0
132kV end connections involving only 132kV work	4.4	1.7	3.7	1.5	0.1	0.1	6.3
New local authority connections: 1-100	117.7	0.0	81.1	0.0	3.2	0.0	120.9
New PFI connections	16.2	-	10.1	0.0	0.4	-	16.6
Other unmetered (non-local authority or PFI)	9.9	-	0.0	0.0	0.0	-	9.9
TOTAL	**1147.3**	**378.7**	**908.2**	**305.7**	**30.2**	**9.8**	**1566.1**

Appendix 5 – Interruption Incentive Scheme: targets and allowances

1.1. Chapter 16 sets out the annual targets for each DNO for customer interruptions (CIs) and customer minutes lost (CMLs) at an overall level. Performance in DPCR5 will be measured relative to these targets. These targets are the result of separate target setting methodologies applied to unplanned and pre-arranged interruptions, the results of which are contained in the tables below.

Table 1 - Unplanned element of overall Customer Interruptions (CIs) targets

DNO	2010-11	2011-12	2012-13	2013-14	2014-15
CN West	105.4	105.4	105.4	105.4	105.4
CN East	72.7	72.7	72.7	72.7	72.7
ENW	50.4	50.2	50.0	49.9	49.7
CE NEDL	64.0	63.9	63.9	63.8	63.8
CE YEDL	72.8	72.8	72.8	72.8	72.8
WPD S Wales	75.1	75.1	75.1	75.1	75.1
WPD S West	69.3	69.3	69.3	69.3	69.3
EDFE LPN	32.7	32.7	32.7	32.7	32.7
EDFE SPN	81.9	81.0	80.2	79.3	78.5
EDFE EPN	73.5	73.3	73.1	72.9	72.7
SP Distribution	58.1	58.1	58.1	58.1	58.1
SP Manweb	42.4	42.2	42.1	41.9	41.7
SSE Hydro	70.3	70.3	70.3	70.3	70.3
SSE Southern	71.3	70.7	70.0	69.4	68.8

Table 2 - Unplanned element of overall Customer Minutes Lost (CMLs) targets

DNO	2010-11	2011-12	2012-13	2013-14	2014-15
CN West	85.5	84.9	84.2	83.5	82.8
CN East	62.0	61.6	61.2	60.8	60.4
ENW	48.0	48.0	48.0	48.0	48.0
CE NEDL	60.3	60.1	59.9	59.7	59.6
CE YEDL	68.6	68.6	68.6	68.6	68.6
WPD S Wales	38.2	38.2	38.2	38.2	38.2
WPD S West	41.9	41.9	41.9	41.9	41.9
EDFE LPN	39.8	39.8	39.8	39.8	39.8
EDFE SPN	81.4	76.6	71.9	67.1	62.3

DNO	2010-11	2011-12	2012-13	2013-14	2014-15
EDFE EPN	65.3	63.8	62.4	61.0	59.5
SP Distribution	59.5	57.5	55.5	53.5	51.5
SP Manweb	52.3	51.8	51.3	50.8	50.3
SSE Hydro	60.6	60.6	60.6	60.6	60.6
SSE Southern	63.6	62.8	61.9	61.1	60.2

Table 3 - Pre-arranged element of overall CI and CML targets for entire DPCR5 period

DNO	Pre-arranged CIs		Pre-arranged CMLs	
	100 per cent weighting	50 per cent weighting	100 per cent weighting	50 per cent weighting
CN West	45.0	22.5	114.4	57.2
CN East	30.8	15.4	69.9	34.9
ENW	25.1	12.5	76.1	38.0
CE NEDL	42.6	21.3	110.1	55.0
CE YEDL	25.8	12.9	73.8	36.9
WPD S Wales	43.9	21.9	64.3	32.1
WPD S West	42.7	21.4	90.6	45.3
EDFE LPN	6.5	3.3	11.5	5.8
EDFE SPN	31.7	15.9	62.1	31.1
EDFE EPN	26.5	13.3	58.6	29.3
SP Distribution	20.1	10.0	60.7	30.3
SP Manweb	32.2	16.1	88.2	44.1
SSE Hydro	67.0	33.5	145.0	72.5
SSE Southern	25.6	12.8	55.4	27.7

1.2. The overall annual CI and CML targets are derived by taking the pre-arranged allowances, weighted by 50 per cent to reflect the fact that customers are less inconvenienced when given advance warning of an interruption, apportioning these evenly across the five years of DPCR5 and adding these to the respective unplanned CI and CML values in Tables 1 and 2 above. E.g. for CN West the overall CI target is given by: 22.5/5 = 4.5, plus 105.4 = 109.9.

Appendix 6 – Customer service reward scheme

1.1. Table 1 sets out the rewards made to DNOs during DPCR4 under the customer service reward scheme. Table 2 summarises the key areas of best practice that were identified and commended by the customer service reward panel during DPCR4. These examples of best practice will be incorporated into the minimum requirements of the scheme during DPCR5 as explained in Chapter 18.

Table 1 - Summary of rewards made under the customer service reward scheme to date

Rewards		
2005-06	Priority customer care	
	Shared by EDF Energy and WPD (£300,000 each)	▪ Work with suppliers and energywatch to improve Priority Service Register and raise awareness of available services. ▪ Support offered to priority customers during interruptions, such as regular updates and additional assistance. ▪ EDF Energy was also commended for its proactive customer research and for incorporating this into staff training to improve services.
	Corporate social responsibility (CSR)	
	WPD (£200,000)	▪ Breadth and depth of initiatives, good governance procedures and holistic approach. ▪ E.g. Staff participation in educational projects which relate to the industry and its work.
2006-07	Priority customer care	
	Shared by CE Electric and EDF Energy (£300,000 each)	▪ Demonstration of the impact of initiatives on customers. ▪ Recognition of the need to serve temporarily vulnerable customers. ▪ Work to update records and provide customers with additional services. ▪ Staff training from relevant organisations. ▪ CE Electric was also commended for its treatment of disabled customers and for senior management involvement in its priority customer care programme. ▪ EDF Energy was also praised for its work with a disability charity to build knowledge of customer needs and for its contact with vulnerable groups through talking newspapers and hospital radio.
	Wider communication strategies	
	CE Electric (£400,000)	▪ Language line providing translation into over 100 languages. ▪ Distribution of update newsletters to parish councils. ▪ Work with community groups, MPs and media to raise customer awareness.
2007-08	Corporate social responsibility	
	Central Networks and EDF Energy (£350,000	▪ Exceeding obligations within local communities to mitigate the environmental and social impacts of electricity networks. ▪ Wider business commitment to CSR, senior level engagement and innovative initiatives demonstrated.

Rewards		
	each)	
	Wider communication strategies	
	Central Networks and WPD (£150,000 each)	▪ Responding to the specific communication needs in their communities, in particular hard to reach customers. ▪ Wider business commitment to communicating with hard to reach customers and senior management engagement with the cause.
2008-09	▪ Corporate social responsibility	
	SSE (£200,000), Central Networks and WPD (£50,000 flagship award each)	▪ Demonstration of enduring and long term commitment to CSR, particularly partnership works to tackle youth unemployment. ▪ Support for a local radio station (Isle FM) to serve customers in isolated communities ▪ Outstanding CSR initiatives designed to minimise safety risk to visually impaired people ▪ Empathy training project which encourages staff engagement with vulnerable customers and delivers benefits for the wider community as well as the company.
	▪ Priority customer care	
	WPD (300,000), EDF (£50,000)	▪ Demonstration of a wider business commitment in reaching and supporting vulnerable customers during outages. ▪ Positive approach to working with suppliers to overcome data protection issues. ▪ Creative and valuable partnership work initiative with British Red Cross to support vulnerable customers during power cuts.

Table 2 - Summary of best practice examples from the customer service reward scheme to date

Best practice
Corporate social responsibility (CSR)
▪ Staff induction programmes to improve the local community.
▪ Active participation in the community and establishment of links with other agencies/stakeholders.
▪ A strategic approach to CSR with active senior management involvement and commitment above and beyond reporting responsibility.
▪ A range of initiatives related to the business such as addressing potential skill shortages, mitigating environmental impacts, safety awareness campaigns and initiatives to prevent doorstep crime.
▪ Inclusion of contractor performance within the company's CSR programme and active encouragement of staff involvement.
▪ Partnership work with local organisations to provide training and development opportunities for disadvantaged young people.
Priority customer care

Best practice
▪ Partnerships with voluntary groups or parish councils to offer support during power interruptions.
▪ Customer support vehicles and winter packs to provide assistance during interruptions.
▪ Customer research to better identify the needs of priority customers.
▪ Initiatives to ensure priority customers are kept informed of progress or offered assistance during unplanned interruptions.
▪ Partnership with a home oxygen equipment provider to raise awareness of the Priority Service Register among oxygen dependent customers and co-ordinate emergency care.
▪ Work with community partners to expand the Priority Service Register and initiatives to ensure information is accurate and up to date.
▪ Active promotion of the Priority Service Register.
▪ Work with relevant organisations to ensure that staffs are properly trained to help vulnerable customers.
▪ Commitment and involvement of senior staff.
▪ Providing practical and innovative solutions to enable vulnerable customers to cope with power cuts (i.e. analogue phones and UPS solutions).
Wider communication strategies
▪ Work with local radio to reinforce and extend coverage, enabling radio updates during storms and power interruptions.
▪ Other partnership work with parts of the community, such as Post Offices, MPs and media.
▪ Proactive use of materials and communication techniques such as easy-to-read, audio and Braille formats.
▪ Proactive use of customer complaints and customer research.
▪ Provision of live network information during interruptions enabling customers to check estimated restoration times.
▪ Media training for key staff members.
▪ Initiatives that recognise the specific communication needs of the company's particular communities including hard to reach customers.
▪ Use of employee feedback in targeting communication strategies.
▪ Sharing established partnerships with other DNOs to facilitate the sharing of best practice.
▪ Bespoke customer service training initiatives to empower staff to respond to the needs of customers with learning difficulties.

Appendix 7 - Qualitative review - Network Outputs Regime

Summary

1.1. This document sets out all the factors we have considered in developing the framework for network outputs, building on the extensive consultation we have undertaken throughout the DPCR5 review, both formally and informally.

1.2. Coming out of TPCR4, and through the DPCR5 consultation process, the consistent message we have communicated and received through consultation has been that a well-defined and consistent set of network outputs is a key missing ingredient of the existing RPI-X framework[42]. In our early DPCR5 consultation documents we highlighted that we have few measures of what DNOs deliver in return for the revenues they collect from consumers. While the existing framework includes output measures in areas such as quality of supply (QoS), network losses and customer satisfaction, we identified that there is no direct measure of what consumers gain from investment in network assets, which can account for a high proportion of network costs.

1.3. The existing QoS measures can provide an indication of the impact of network investment by a DNO over the long run. However to the extent there is under-investment in the network, the impacts on QoS performance may not be visible for some time. In the absence of a DNO commitment to output measures that lead the investment decision, the existing RPI-X framework could encourage the deferral of essential network investment at the expense of both current and future consumers. Current consumers may partially fund investment that is not carried out over the period (and may in fact fund some of the same investment in the following period), while future consumers may be faced with a less reliable network down the track as a result of under-investment today.

1.4. The lack of leading output measures makes it difficult for us to exercise our duty to protect consumers. Without outputs, where DNOs undertake less investment expenditure than expected at the time the price control was set, it is difficult to determine whether this is because the company found genuine efficiencies, or because they have deferred expenditure at the expense of network health and/or loading.

1.5. Throughout the DPCR5 process we have consulted both formally and informally on the development of the network outputs regime. A common framework has been developed over the course of the price control review, with productive and proactive input from all the DNOs as part of the Network Outputs Working Group (NOWG), as well as from other parties in response to our formal DPCR5 consultation documents. Our Initial Proposals document presented the common methodology for 'tier 2' (i.e. site / asset specific) network output measures, and consulted on a range of options

[42] The development and implementation of clearly defined outputs going forward is also a key consideration for the RPI-X@20 review.

available to impose financial consequences on a DNO who is deemed at the end of DPCR5 not to have met its agreed outputs (or an equivalent).

1.6. Our Final Proposals builds on the common methodology developed with the DNOs and described in Initial Proposals. It sets out in detail our proposed qualitative outputs performance assessment process to take place at the end of DPCR5, as well as our proposed methodology for determining the financial consequences for a DNO who does not meet its agreed outputs (or equivalent).

An improved RPI-X framework with outputs

1.7. The primary objective of the network outputs regime is to ensure that DNOs undertake the investment required on the network and deliver what consumers have paid for via the DPCR5 settlement. This ensures that the cost incentives effectively bind on the DNOs.

1.8. As DNOs will only be rewarded for 'true' efficiency gains we expect that an RPI-X framework with network outputs is likely to bring clear benefits to consumers relative to a framework without outputs. Under the network outputs regime consumers receive value for money today, and are protected from inefficient deferral which could lead to a significant 'backlog' of network investment in future periods.

1.9. There are also other important benefits from the introduction of network outputs in the RPI-X framework, including:

- By promoting long term asset stewardship and ensuring that DNOs are only rewarded for undertaking efficient network investment, the introduction of network output measures at DPCR5 will help promote a reliable and secure electricity supply.
- Our proposed framework will enhance health and safety for DNOs and their employees, by promoting more efficient asset management and an improved understanding of the health and loading of the network.[43]

1.10. While acknowledging the need to protect consumers, most respondents to Initial Proposals were of the view that it is too early to impose financial consequences for DPCR5, given that the methodology is newly developed and untested. After considering responses to Initial Proposals we are of the view that the methodology developed for DPCR5 is sufficiently robust, and further improvement and refinement is expected over the period. Moreover, we consider it imperative to have financial consequences in place for DPCR5 for a DNO who fails to deliver the agreed outputs (or an equivalent). On this basis, and after further consultation with the DNOs, we have developed a methodology for determining financial consequences for under-delivery, which is a variant on one of the options put forward in Initial Proposals.

[43] It is important to note that the DNO commitment at settlement to delivery of a package of network outputs does not override any existing compliance obligations.

1.11. In developing a methodology for assessing output performance and determining the financial consequences for under-delivery, we have given careful consideration to the balance between:

- providing strong incentives to deliver outputs in the interests of consumers and the network, and
- the need to avoid encouraging inappropriate goal-oriented behaviour by DNOs.

1.12. This is a delicate balance. On the one hand, consumers are entitled to expect the framework to provide DNOs with strong incentives to deliver the outputs identified as needed on the network and as paid for via the settlement. However if the framework does not allow DNOs to flexibly and efficiently respond to changing circumstances on their networks over the period, the investment delivered may not serve the interests of the network, consumers or the DNOs. We believe our proposed methodology achieves an appropriate balance.

1.13. Firstly, our proposed end-of-period qualitative outputs performance assessment allows for the 'baseline' agreed outputs to change with new information received over the period. That is, the outputs delivered by a DNO will not be mechanistically judged against the outputs forecast at the time of settlement, but against an equivalent level of outputs taking into account all of the changes that have materially impacted output performance over the period. We will apply a number of high-level principles in making this assessment, including:

- efficient reprioritisation of activities is expected and encouraged – DNOs must retain the flexibility to respond quickly to new information and will not be penalised for doing the right thing in the interests of the network.
- further improvement and innovation in asset management techniques should be encouraged not hindered by the performance assessment process.
- there needs to be significant and material issues identified with the outputs delivered at a holistic level before it can be qualitatively determined that a DNO has not satisfactorily delivered the equivalent of its agreed outputs.

1.14. While DNOs retain the flexibility to make efficient asset management decisions, this qualitative process also provides sufficient protection to consumers. At a high level the purpose of the performance assessment is to determine whether or not a DNO has satisfactorily delivered a package of outputs consistent with the change in the level of network risk funded by its consumers through the DPCR5 settlement. This requires DNOs to provide information to demonstrate that the programme of work actually delivered over DPCR5 was in customers' best interests given the changes to the baseline, and for us to qualitatively determine whether or not this is the case.

1.15. Secondly, for a DNO who we qualitatively determine has not met its outputs, ex post we propose to apply financial consequences which are sufficient to encourage

DNOs to deliver outputs when making their investment decisions. That is, the level of the financial consequences that will be applied under our proposed methodology is high enough such that, at the margin, DNOs will have an incentive to deliver outputs rather than failing outputs and accepting those consequences. Our proposed methodology is as follows:

- value the difference between the DNO's delivered outputs and the baseline outputs adjusted for new information (i.e. the 'network outputs gap'), and
- apply an incentive rate to the network outputs gap to calculate a revenue adjustment to apply at DPCR6.

1.16. To value the network outputs gap, we will calculate the difference in volumes delivered compared to the volumes implicit in the adjusted baseline, and then multiply this by a unit cost assumption that maintains the incentive to deliver outputs. To calculate the revenue adjustment we propose to use a marginally (2.5 per cent) higher incentive rate than that to be applied to network costs for DPCR5. This is to ensure that, at the margin, DNOs will have a positive incentive to deliver outputs rather than fail outputs and accept the financial consequences.

1.17. We understand the views of some interested parties on the risks associated with imposing financial consequences in a newly developed and untested area. However rather than an argument against imposing financial consequences for a failure to deliver, we see this as an argument for allowing sufficient flexibility and scope for DNOs to respond to new information and to further improve their asset management practices over DPCR5. Provided a DNO is able to explain its investment decisions in terms of consumers' interests, we believe the qualitative assessment process provides ample protection to both consumers and the DNOs.

1.18. Providing a strong incentive to deliver a set of outputs consistent with what the network requires and what consumers have paid for via the settlement represents a significant step forward in the RPI-X framework. Our proposed methodology for calculating financial consequences results in a more effective cost incentive which works as originally intended by only rewarding genuine efficiencies.

Other impacts to consider

1.19. Given that the methodology is relatively new there is a potential that the data underpinning the DPCR5 network output measures is found to be less reliable than first thought. For example, at settlement a DNO may have committed to delivering a Health Index (HI) profile for a particular asset class on the basis of its degradation model suggesting a 40 year life assumption. However, further work on asset-specific condition-monitoring and degradation modelling throughout the period identifies these assets as having various life expectancies ranging between 30 and 50 years. This new information will impact upon the DNO's decision to undertake replacement of these assets over the period, and therefore the agreed network outputs may not be delivered exactly as forecast.

1.20. We accept that DNOs are at various stages of HI data collection for different asset classes, and further improvement and innovation is encouraged over DPCR5. It is critical to the integrity of the process that DNOs are not constrained in making efficient asset management decisions in response to the new information received over the period. However there is a risk that DNOs treat the outputs as 'hard targets' and fail to adapt their investment to the real-time needs of the network, which would not serve the interests of the network, consumers or the DNOs themselves. As discussed above, our proposed annual reporting and qualitative assessment processes allow for new information to be fully taken into account in adjusting the baseline outputs - we will not mechanistically hold DNOs to delivery of the network outputs agreed as part of the settlement.

1.21. There will be a number of new data collection and reporting requirements imposed upon DNOs as part of our proposed network outputs regime. These include:

- setting up the appropriate systems and processes for capturing outputs data,
- populating the outputs reporting templates and providing the relevant commentary on an annual basis, and
- engaging with us on outputs as part of the annual cost visits, the mid-period review and the performance assessment process.

1.22. Even though these are new regulatory requirements, we consider that the processes required to collect and report data under the network outputs regime are an integral part of the DNOs' day-to-day asset management practices. We have developed the common methodology with DNOs so that it allows for their internal processes to be retained as far as possible (particularly for the HI), therefore the incremental 'once-off' system setup costs should be minimal. Further, to the extent that improvements in asset management practices over the period lead to more efficient long term investment by DNOs, we believe that the benefits to consumers significantly outweigh any additional costs incurred.

1.23. The annual reporting and performance assessment processes are central to the network outputs regime. The information received from DNOs will allow us to understand the impact of new information and track progress against the agreed outputs over the period. The end-of-period performance assessment is essential to ensuring that DNOs have delivered value for money in return for the revenues provided by consumers as part of the DPCR5 settlement. On this basis we consider that the benefits to consumers from these reporting and assessment processes are likely to significantly outweigh the ongoing compliance costs incurred by DNOs.

1.24. DNOs are exposed to financial consequences in the event that we conclude from our qualitative assessment process that the agreed (or equivalent) outputs have not been delivered. The level of exposure is uncapped, consistent with the cost incentive. As discussed above, a number of DNOs have expressed the view that there are significant risks associated with imposing financial consequences in a newly developed and untested area. We acknowledge these concerns, however we consider that without financial consequences in place consumers are not adequately protected

- DNOs would continue to retain the benefit from the cost incentive even if we deem qualitatively that they have not delivered on outputs.

1.25. Finally, to the extent that a DNO satisfactorily meets its outputs, the assessment process will legitimise any cost efficiencies made, and future investment plans may be looked upon more favourably[44].

Conclusion

1.26. Based on our considerations above, we have concluded that, as DNOs will only be rewarded for 'true' efficiency gains, an RPI-X framework with network outputs is likely to bring clear benefits to consumers relative to a framework without outputs. In addition, we anticipate that a common framework for network output measures will encourage further improvement and innovation in DNO asset management practices and therefore result in more efficient long-term network investment. Although there are new reporting obligations and potential financial consequences associated with the new framework for DNOs, we conclude that the potential value from the introduction of network output measures is likely to considerably exceed the costs. As such we consider there is a strong case for the introduction of our proposed network outputs regime in DPCR5.

1.27. We will continually review the success of the network outputs regime at future price control reviews. The annual reporting and mid-period review processes might also provide an opportunity to examine some of the impacts of the policy.

[44] The final allowed capital expenditure may be subject to a review of the DNOs' structure of charging methodology.

Appendix 8 – The Authority's Powers and Duties

1.1. Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority ("the Authority"), the regulator of the gas and electricity industries in Great Britain. This Appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).

1.2. The Authority's powers and duties are largely provided for in statute, principally the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Act 2004, as well as arising from directly effective European Community legislation. References to the Gas Act and the Electricity Act in this Appendix are to Part 1 of each of those Acts.[45]

1.3. Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This Appendix must be read accordingly[46].

1.4. The Authority's principal objective when carrying out certain of its functions under each of the Gas Act and the Electricity Act is to protect the interests of existing and future consumers, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas conveyed through pipes, and the generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors.

1.5. The Authority must when carrying out those functions have regard to:

- the need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- the need to secure that all reasonable demands for electricity are met;
- the need to secure that licence holders are able to finance the activities which are the subject of obligations on them[47];
- the need to contribute to the achievement of sustainable development; and
- the interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.[48]

[45] entitled "Gas Supply" and "Electricity Supply" respectively.
[46] However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.
[47] under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Act in the case of Electricity Act functions.
[48] The Authority may have regard to other descriptions of consumers.

1.6. Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:

- promote efficiency and economy on the part of those licensed[49] under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
- protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity; and
- secure a diverse and viable long-term energy supply.

1.7. In carrying out the functions referred to, the Authority must also have regard, to:

- the effect on the environment of activities connected with the conveyance of gas through pipes or with the generation, transmission, distribution or supply of electricity;
- the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice; and
- certain statutory guidance on social and environmental matters issued by the Secretary of State.

1.8. The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation[50] and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

[49] or persons authorised by exemptions to carry on any activity.
[50] Council Regulation (EC) 1/2003

Appendix 9 - Glossary

123

132 kV

Only covers assets at the 132 kV voltage level.

A

Allowed Loss Percentage (ALP)

The target level of losses for any given DNO is determined by:
Allowed Loss Percentage *Units Distributed.

A DNO's losses position relative to this target will be subject to a reward/penalty.

Areas of Outstanding Natural Beauty (AONB)

An AONB is an area of countryside with significant landscape value that has been designated by the Countryside Agency. The purpose of the designation is to conserve and enhance the natural beauty of the landscape; ANOBs rely on planning controls and practical countryside management.

Asset replacement expenditure

Investment made to replace assets on the network where the asset has reached a condition that it is no longer fit for purpose and replacement is the most economic solution. Also includes replacement of major plant items that have failed.

B

Business Carbon Footprint (BCF)

Total set of GHG emissions caused directly and indirectly by the operation of a business.

Benchmarking methodology for CI and CML

1.1. In order to take into account inherent and inherited factors when comparing quality of supply, Ofgem jointly with the Quality of Service Working Group, has developed a method for calculating benchmarks for CIs and CMLs. In essence this method involves grouping physically similar parts of networks together and then comparing performance at this more disaggregated level. Overall benchmarks are then calculated for each DNO based on the number of circuits it has in each group.

Balancing Mechanism Unit (BMU)

The smallest unit for considering system inputs and outputs.

Basis points (bps)

One hundredth of a percentage point

Business Support Costs (BSCs)

Consists of the following activities: IT & Telecoms, Property Management, HR & Non-Operational Training, Finance and regulation and CEO etc. The definitions of these activities can be found within the DPCR5 August Forecast Business Plan Questionnaire Rules.

BT 21st century networks (BT21CN)

Proposed changes to BT's commutation network which may impact on circuits leased by the DNOs for protection signalling and substation commutation.

C

Capital Expenditure (Capex)

Expenditure on investment in long-lived distribution assets, such as underground cables, overhead electricity lines and substations.

Customer interruptions (CIs)

The number of customers whose supplies have been interrupted per 100 customers per year over all incidents, where an interruption of supply lasts for three minutes or longer, excluding re-interruptions to the supply of customers previously interrupted during the same incident. It is calculated as:

$$\frac{\text{The sum of the number of customers interrupted for all incidents} * 100}{\text{The total number of customers}}$$

Consumer Issues Working Group (CIWG)

Customer minutes lost (CMLs)

The duration of interruptions to supply per year – average customer minutes lost per customer per year, where an interruption of supply to customer(s) lasts for three minutes or longer, calculated as:

$$\frac{\text{The sum of the customer minutes lost for all restoration stages for all incidents}}{\text{The total number of customers}}$$

Corporate Social Responsibility (CSR)

D

Distribution and Connection Use of System Agreement (DCUSA)

The DCUSA provides a single centralised document which relates to the connection to and use of the distribution networks.

Department of Energy and Climate Change (DECC)

Department for Environment, Food and Rural Affairs (DEFRA)

Distributed Generation (DG)

Any generation which is connected directly into the local distribution network, as opposed to the transmissions network, as well as combined heat and power schemes of any scale. The electricity generated by such schemes is typically used in the local system rather than being transported for use across the UK.

Distributed Generation Incentive (DGI)

The DG incentive is a 'hybrid' incentive scheme that provides for partial pass-through treatment of reinforcement costs incurred in providing network access to DG and a £/kW revenue driver to incentivise connection of DG. The 'hybrid' incentive sought to combine incentives for efficiency (via the incentive rate) with protection against cost uncertainty (via the cost pass through). An additional element to the incentive was created to provide ongoing network access (availability). The allowances were set based on the DNOs' expectations of likely DG connections and the costs associated with those connections.

Distribution Network Operators (DNOs)

A DNO is a company which operates the electricity distribution network which includes all parts of the network from 132kV down to 230V in England and Wales. In Scotland 132kV is considered to be a part of transmission rather than distribution so their operation is not included in the DNOs' activities.

There are 14 DNOs in the UK which are owned by seven different groups.

Distribution Price Control Review 4 (DPCR4)

Distribution price control review 4. This price control runs from 1 April 2005 until 31 March 2010.

Distribution Price Control Review 5 (DPCR5)

Distribution price control review 5. This price control is expected to run from 1 April 2010 until 31 March 2015.

Distribution Price Control Review 6 (DPCR6)

Distribution price control review 6. This price control is expected to run from 1 April 2015 until 31 March 2020.

Demand side management (DSM)

Demand Side Management (aka Load Management) is any mechanism that allows a customer's demand to be intelligently controlled in response to events on the power system. Such events would include lack of network capacity or insufficient generation.

Distribution Use of System (DUoS) charges

Charges which are paid by electricity supply companies to the distribution companies to cover the cost of distributing electricity to their customers.

E

European Commission (EC)

Electricity Connections Steering Group (ECSG)

Extra High Voltage (EHV)

Includes all voltage levels above 20kV up to but excluding 132kV.

Engineering, Management & Clerical Support (EMCS)

Energy Networks Association (ENA)

ENA is the industry body funded by UK gas and electricity transmission and distribution licence holders. It lobbies on common issues in the operating environment, both at domestic and European levels, and provides technical services for the benefit of members.

Electricity Networks Strategy Group (ENSG)

Energy Service Company (ESCO)

An Energy Service Company is a business that focusses on projects designed to improve energy efficiency, usually featuring renewable energy sources.

Electricity, Safety, Quality and Continuity Regulations 2002 (ESQCR)

The ESQCR specify safety standards, which are aimed at protecting the general public and consumers from danger. In addition, the regulations specify power quality and supply continuity requirements to ensure an efficient and economic electricity supply service to consumers.

European Union Emissions Trading Scheme (EU ETS)

This is the EU-wide greenhouse gas emissions trading scheme, under which governments must set emission limits for all large emitters of carbon dioxide in their country. Each installation is then allocated an allowance for the particular phase in question, with the first phase running from 2005 – 2007 and the second from 2008 –

2012. Installations may meet their cap by either reducing emissions below the cap and selling the surplus, or letting their emissions remain higher than the cap and buying allowances from other participants in the EU emissions market.

F

Fast money

Fast money is the revenue that is matched to the year of expenditure.

Forecast business plan questionnaire (FBPQ)

A major information request by Ofgem in the form of excel spreadsheets and associated narrative guidance. This captures key historical information and forecast information for the remainder of DPCR4 and DPCR5. We also obtained detailed explanatory narratives from each DNO.

G

General reinforcement expenditure

Investment to reinforce the network due to changes in general demand or generation background that is not directly attributable to a specific demand or generation connection.

Great Britain System Operator (GBSO)

The current Great System Operator is National Grid Electricity Transmission plc.

Generator Distribution Use of System (GDUoS) charges

See UoS below.

Greenhouse Gas (GHG)

A collection of gases which absorb infrared radiation and trap its heat in the atmosphere.

Grid Supply Point (GSP)

Point of connection between the GB transmission system and a distribution network, large power station or other non-embedded customers where National Grid delivers electricity.

Gigawatt (GW)

A measure of energy equal to one thousand megawatts.

H

Half-Hourly (HH)

Health Index (HI)

High Impact Low Probability (HILP)

Electricity distribution networks are designed and built to ensure supply continuity for most customers during planned outages and faults that are considered to be credible events. There is a small risk that a more extreme event occurs that has a very high impact on the ability of the distribution system to provide supply continuity. Such an event could result in extended periods of supply interruption for a significant number of customers and is referred to as HILP.

High Voltage (HV)

Includes all voltage levels above 1kV up to and including 20kV.

I

Impact Assessment (IA)

Ofgem has a statutory duty to carry out IAs in certain circumstances concerning decisions that it considers to be "important". This is set out in section 5A of the Utilities Act 2000. If we decide that it is not necessary to publish an IA then we must publish a statement explaining the reasons for our decision.

Independent Connection Provider (ICP)

An independent provider who relies on extensions to a DNO's network.

Independent distribution network operators (IDNOs)

Any electricity distributor whose licences were granted after 1 October 2001. IDNOs do not have distribution services areas.

Innovation Funding Incentive (IFI)

The IFI is intended to encourage DNOs to invest in appropriate research and development activities that are designed to enhance the technical development of distribution networks (up to and including 132 kV) and to deliver value (i.e. financial, supply quality, environmental, safety) to end consumers.

Interruptions Incentive Scheme (IIS)

On 1 April 2005 Ofgem introduced a revised interruptions incentive scheme which provides financial incentives to DNOs with respect to the average quality of service they provide in terms of:

- the number of interruptions to supply, and
- the duration of interruptions to supply.

DNOs may be rewarded or penalised by up to 3 per cent of revenue, depending on performance relative to their interruptions targets in each year of the scheme.

Intellectual Property Rights (IPR)

Information Quality Incentive (IQI)

The IQI is a mechanism for setting price control allowances that provides ex ante incentives for DNOs to submit accurate forecasts of their expected expenditure and provides incentives for efficiency improvements once the price control has been set.

Information Systems (IS)

K

KiloVolt-Ampere (KVA)

One thousand volt-amps, which is calculated as: voltage * current

Kilowatt (KW)

A measure of energy equal to one thousand watts.

L

Low carbon networks fund (LCN fund)

Funding to encourage the DNOs to innovate to deliver the networks we will need for a low carbon economy.

Load Index (LI)

Proposed output metric for substation loading similar to the health index (HI) but instead of capturing asset health the LI captures the loading risk on a substation taking account of load (MVA) over firm, duration over firm and forecast load growth.

Losses Rolling Retention Mechanism (LRRM)

The losses incentive scheme is characterised by a rolling retention mechanism, such that rewards/penalties from incremental outperformance are retained for a five year period.

Long Term Development Statement (LTDS)

LTDS' provide information about a DNO's network that allows qualified parties to make initial assessments of connection opportunities. In 2002, Ofgem introduced a license change that required all DNOs to produce them annually.

Low Voltage (LV)

All voltage levels up to and including 1kV.

M

Mega Volt Ampere (MVA)

One million Volt Amps, which is calculated as: voltage*current.

Megawatt (MW)

A measure of energy equal to one thousand Kilowatts.

N

Non-Half-Hourly (NHH)

Network Operating Costs (NOCs)

Consists of the activities of Faults, Inspections and Maintenance and Tree Cutting. The definitions of these activities can be found within the DPCR5 August Forecast Business Plan Questionnaire Rules.

Network Outputs Working Group (NOWG)

Non-operational IT

Activities as defined in the RRP guidelines i.e. excludes IT equipment used exclusively in the real time management of network assets such as RTU units and communication equipment receivers at the control centre. Non-operational property - As defined in the RRP guidelines includes offices and depots. Substations and other operational premises are not included.

Net Present Value (NPV)

Net present value is the discounted sum of future cash flows, whether positive or negative, minus any initial investment.

O

Ongoing efficiency improvements

Efficiency improvements in an industry can be separated into two components: a catch-up element which captures the effect of firms implementing practices already adopted by the more efficient firms, and ongoing efficiency improvements that will be made by the industry as a whole. These ongoing efficiency improvements reflect the improvements that would be expected of the most efficient firms in the industry. Ongoing efficiency improvements are sometimes known as frontier shift.

Operational IT and telecoms (excluding BT 21st century networks)

Investment in Operational IT and telecoms, such as, substation RTUs, marshalling kiosks, communications for switching & monitoring, and control centre hardware & software.

P

Private Finance Initiatives (PFI)

A Private Finance Initiative is a mechanism for the private sector to invest in projects focussed on the delivery of public sector services over a long time horizon.

R

Regulatory asset value (RAV)

The value ascribed by Ofgem to the capital employed in the licensee's regulated distribution or (as the case may be) transmission business (the 'regulated asset base'). The RAV is calculated by summing an estimate of the initial market value of each licensee's regulated asset base at privatisation and all subsequent allowed additions to it at historical cost, and deducting annual depreciation amounts calculated in accordance with established regulatory methods. These vary between classes of licensee. A deduction is also made in certain cases to reflect the value realised from the disposal of assets comprised in the regulatory asset base. The RAV is indexed to RPI in order to allow for the effects of inflation on the licensee's capital stock. The revenues licensees are allowed to earn under their price controls include allowances for the regulatory depreciation and also for the return investors are estimated to require to provide the capital.

Research & Development (R&D)

Reporting Instructions and Guidance (RIG)

A document that is published as part of the price control settlement which sets out further detail on how the price control is to be implemented and how compliance with it will be monitored.

Return on regulatory equity (RORE)

Return on Regulatory Equity is a regulatory metric that we have developed to understand the returns available to shareholders in regulated networks from our price control packages. We include the effects of all material incentives, drivers and true-ups, even where adjustments take place in a subsequent price control period. We maintain our notional gearing assumption, though, which may lead our results to differ from what companies achieve in practice.

Real Price Effects (RPE)

Increase in prices over and above increases in the Retail Price Index (RPI). For example, increases in the cost of copper, steel, direct or contract labour over and above increases in RPI.

RPI-X

The form of price control currently applied to network monopolies. Each company is given a revenue allowance in the first year of each control period. The price control then specifies that in each subsequent year the allowance will move by 'X' per cent in real terms.

RPI-X@20

RPI-X@20 is our root and branch review of regulation following 20 years of regulation under the RPI-X approach whereby allowances are pegged to a certain amount below RPI inflation.

Registered Power Zone (RPZ)

This mechanism is being discontinued, as it is being superseded by the Low Carbon Network fund. RPZ was a mechanism to encourage DNOs to develop and demonstrate new and more cost effective technologies for connecting and operating generation on their distribution systems. Where a DG connection met the requirements and was registered as a RPZ the DNO received an additional incentive over and above the main DG incentive.

S

Slow money

Slow money is where cost costs are added to the RAV and revenues allow recovery of the costs over time (currently 20 years) together with the cost of financing this expenditure in the interim.

Statutory Instrument (SI)

UK Government legislation.

Shadow Price of Carbon (SPC)

Economic measure of the damage costs of climate change caused by each additional tonne of greenhouse gas emitted based on a stabilisation trajectory and in line with the marginal abatement costs of reaching the stabilisation goal (taking uncertainty into account).

T

Transmission Owner (TO)

The companies which own and operate the gas and electricity transmission networks in Great Britain.

Transmission Price Control Review 4 (TPCR4)

U

Use of System charges (UoS)

Charges paid by generators and demand customers, usually via suppliers, for the use of the distribution network.

Use of system network reinforcement cost

Expenditure on the network that is required to connect DG but where the reinforcement will also be utilised by other users of the network and therefore the cost is included in the generation use of system charges rather than being borne solely by the connecting DG.

W

Weighted Average Cost of Capital (WACC)

This is the weighted average of the expected cost of equity and the expected cost of debt.

Willingness to Pay (WTP)

Willingness to pay is an economic concept. It refers to the maximum monetary amount that consumers would be willing to pay to receive a good or a service.

Worst served customer (WSC)

Customer experiencing greater than or equal to five higher voltage interruptions on average over a three year period i.e. 15 or more over three years. Additional caveat of a minimum of three higher voltage interruptions in each year.

Appendix 10 - Feedback Questionnaire

1.1. Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:

- Does the report adequately reflect your views? If not, why not?
- Does the report offer a clear explanation as to why not all the views offered had been taken forward?
- Did the report offer a clear explanation and justification for the decision? If not, how could this information have been better presented?
- Do you have any comments about the overall tone and content of the report?
- Was the report easy to read and understand, could it have been better written?
- Please add any further comments?

1.2. Please send your comments to:

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