

## Electricity Distribution Annual Report for 2010-11

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### Overview

Ofgem regulates Great Britain's electricity distribution network companies, which have regional monopolies, in order to protect consumers. Ofgem sets the revenues DNOs can collect from network users. In return for these revenues, the companies are required to provide customers with a safe, secure and reliable network and a range of other services, such as timely connections and effective complaint handling.

DNOs provide Ofgem with information each year to help us monitor performance against their price control incentives and obligations. This report reviews DNO performance in 2010-11. It covers key areas such as customer service, connections, the environment and providing network reliability in a cost effective manner.

We have put new requirements on the DNOs to engage more effectively with their stakeholders and to use stakeholder views in making business decisions. This report aims to give stakeholders key information on the performance of their electricity distribution network. We seek feedback from stakeholders on the content and format of this report.

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## Context

Electricity distribution network operators (DNOs) are responsible for providing the network which transports electricity from the transmission system to consumers. Each of the 14 DNOs has a monopoly in its designated area. We therefore regulate the DNOs to protect consumers, ensuring they receive high-quality network services at value for money. We do this by setting the allowed revenues which DNOs can collect from customers. In return for this revenue they must provide the services and meet the standards set out in their licences. Customers and other stakeholders play an important part in ensuring that they receive a good service by raising a complaint when they do not get the service they are due or by contacting the companies to set out where they think they could be performing better.

In October 2010, we introduced RIIO<sup>1</sup>, our new approach to network regulation. RIIO aims to promote smarter gas and electricity networks for a low carbon future and puts sustainability alongside consumers at the heart of what network companies do. RIIO will be introduced in 2015 for electricity distribution. The network companies are now required to engage with stakeholders when developing their long-term business plans and demonstrate how they have responded to stakeholder views. This report aims to give stakeholders important information on the performance of their electricity distribution networks.

DNOs provide information each year to Ofgem to help us monitor performance against their price control incentives and obligations. This report brings together and summarises a number of key indicators of DNOs' performance in 2010-11, including a number of new indicators introduced in our fifth electricity distribution price control (DPCR5) which runs from April 2010 to March 2015. This is the second consolidated electricity distribution report of its kind to be published by Ofgem. We seek feedback on the content and presentation of this report so that we can continue to improve the accessibility of the information we publish.

## Associated Documents

- [Electricity Distribution Annual Report for 2008-09 and 2009-10 \(Reference 50/11\)](#)
- [Electricity Distribution Price Control Review Final Proposals \(Reference 144/09\)](#)
- [Distributed Generation \(DG\) Forum 2011](#)
- [2008-09 Quality of Service Report \(Reference 162/09\)](#)
- [2007-08 Quality of Service Report \(Reference 166/08\)](#)
- [2006-07 Quality of Service Report \(Reference 268/07\)](#)
- [2005-06 Quality of Service Report \(Reference 204/06\)](#)
- [Electricity Distribution Cost Review 2007-2008 \(Reference 165/08\)](#)
- [Electricity Distribution Cost Review 2006-2007 \(Reference 289/07\)](#)
- [Electricity Distribution Cost Review 2005-2006 \(Reference 18/07\)](#)
- [Connections Industry Review 2009-10 \(Reference 20/11\)](#)
- [Connections Industry Review 2008-09 \(Reference 15/10\)](#)
- [Connections Industry Review 2007-08 \(Reference 143/08\)](#)
- [Connections Industry Review 2006-07 \(Reference 215/07\)](#)

<sup>1</sup> RIIO is a new performance based model for setting price controls and stands for Revenue = Incentives + Innovation + Outputs. More information about RIIO-ED1 is available on our website at: <http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/riio-ed1/Pages/index.aspx>

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## Summary

### Electricity distribution price control overview

Ofgem regulates each of Great Britain's 14 electricity distribution network operators (DNOs) to protect the interests of current and future consumers. We do this by putting in place a price control, which sets the total revenues that each DNO may recover from customers at a level that allows an efficient operator to finance its activities. In return for these revenues, DNOs must provide the services and the standards set out in their licences. We also place incentives on DNOs to innovate and identify more efficient ways to deliver for consumers. Distribution Price Control Review Five (DPCR5) is the current price control which runs from April 2010 to March 2015.

### DNO performance

This report provides a review of the performance of each DNO in the first year of DPCR5 in the following areas: reliability and availability; customer satisfaction; connections; environment; and social responsibility. Some of these performance indicators, which are presented in Chapter 2, are still being refined.

Disappointingly, we are not publishing the secondary network deliverables indicator in this report as we are not confident in the robustness of the data. A number of DNOs have resubmitted data, which in places considerably revised their 2011 formal submissions under the licence. We expect all DNOs to provide robust data across all metrics, both as part of DPCR5 and, importantly, in their submissions for the next price control RII0-ED1. Where we do not have confidence in a company's data, their plans will be subject to greater regulatory scrutiny and, if required, may take enforcement action.

DNOs generally are showing improving performance against reliability and availability measures and are engaging well in the environmental arena through the Low Carbon Networks Fund. However, we have concerns about performance in the areas of customer service and connections for some companies. We will continue to monitor progress in these areas across the price control and have measures under the price control to penalise poor performance. Key aspects of performance in 2010-11 are reported below.

#### Reliability and availability

In 2010-11 the trend of improving network reliability and availability continued. This is monitored through customer interruptions (CI) and customer minutes lost (CML). On average, DNOs beat their CI and CML targets by 9 per cent and 11 per cent respectively. Over the period 2002-03 to 2010-11, CI and CML performance improved by 17 per cent and 25 per cent respectively. This is positive progress in an area which directly affects customers.

#### Environment

The Low Carbon Networks (LCN) Fund allows up to £500m over DPCR5 to support projects sponsored by the DNOs to try out new technology, operating and commercial arrangements. Ofgem facilitates an annual competition under the LCN Fund for an allocation of up to £64million to help fund a small number of flagship projects. In 2010-11, the Fund allocated £61.7m to four DNO projects. The panel

were impressed with the overall quality and ambition of the 11 submissions received. They were particularly pleased to see the partnerships the DNOs had formed with parties in other parts of the energy sector.

For 2011-12 we have refined the Regulatory Instructions and Guidance on the reporting of environmental data we collect to be able to report in future on areas such as business carbon footprint, oil and sulphur hexafluoride losses.

### **Secondary network deliverables**

Secondary network deliverables are important leading indicators, which we use to determine if DNOs have delivered the network improvements that customers have funded. The deliverables are measured through a network health index, network load index and fault rates. DNOs have committed to deliver specific deliverables against these measures by the end of DPCR5. Although there are no annual network deliverables commitments to measure performance against, we will be reviewing companies' progress as part of the mid-period review. As noted above, due to the actions of some companies, we have not published a performance indicator on secondary network deliverables in this report.

Low expenditure on network investment (NI) potentially suggests slow delivery by a number of companies. On average across the DNOs, expenditure on NI was 73 per cent of 2010-11 allowances. Whilst this was only the first year of DPCR5, and DNOs can recover their position in subsequent years, we have concerns over the extent of underspends in this area and will continue to monitor DNO performance closely. The aforementioned mid-period review is a key opportunity for licensees to allay such concerns. As set out in DPCR5 Final Proposals, in the event that a DNO fails to achieve its secondary network deliverables, a penalty greater than any gains from underspending will be applied.

### **Customer satisfaction and social responsibility**

The current price control places significant emphasis on the DNOs' social and customer service performance. The discretionary reward scheme (DRS) is designed to acknowledge outstanding customer service and can award up to £1m annually. By now DNOs are expected to have identified their stakeholders' priorities, used these to shape their company strategy and measured the impact of their initiatives on stakeholders and the environment. In 2010-11, the panel did not award the full amount of the DRS in recognition that DNOs are not meeting these expectations. Furthermore DNOs have been slow to make use of funding mechanisms to address the needs of worst served customers and improving visual amenity by undergrounding lines in national parks and areas of outstanding natural beauty.

### **Connections**

We have concerns regarding DNO performance on connections. Despite there being no licence infringements recorded for connections and performance against the Connections Standards of Performance Regulations being adequate, there is potential for improvement, particularly in the level of service for distributed generation (DG) customers. We held a series of discussion fora to explore stakeholder feedback on the experience of getting DG connected to a distribution network. Stakeholders requested better and more timely information from DNOs and also greater transparency with regard to the scope and cost of works to provide a connection. We want to be sure that these issues are addressed and service levels will be monitored through a second round of DG fora.

## 1. Background and introduction

### Electricity distribution in Great Britain

1.1. Electricity distribution systems are networks of overhead wires and underground cables that transport electricity across Great Britain. The transmission system conveys electricity from large power plants to local distribution networks for transportation to customers.

1.2. Ofgem sets price controls which define the revenues that each electricity distribution network operator (DNO) may recover from its customers. The price control also puts incentives in place to promote innovation, efficiency, and the provision of adequate network capacity, security, reliability and quality of service. The current price control which runs from April 2010 to March 2015 is known as DPCR5.

1.3. Electricity customers currently pay an average of £4.4 billion annually for electricity distribution.<sup>2</sup> This amounts to approximately 17 per cent of an average domestic customer's bill or about £72 per year, based on consumption of 3300kWh of electricity.<sup>3</sup>

1.4. There are 14 DNOs in Great Britain. Each is granted a distribution licence to operate<sup>4</sup>. In 2010-11 the 14 licences were owned by one of seven companies. Figure 1.1 shows the name and location of each licence owner and distribution system in 2010-11.

1.5. The most recent names and abbreviations of the 14 individual DNOs are used in this report to facilitate comparison with subsequent reports.

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<sup>2</sup> Electricity Distribution Price Control Review, Final Proposals, December 2009, 144/09, pp. 1.

<sup>3</sup> Updated Household Energy Bills Explained Factsheet. Number 97. 18 January 2011. Ofgem.

<sup>4</sup> The Standard Conditions of the Electricity Distribution Licence are available on our website at: [http://epr.ofgem.gov.uk/document\\_fetch.php?documentid=15992](http://epr.ofgem.gov.uk/document_fetch.php?documentid=15992)

**Figure 1.1 Map of DNOs in Great Britain**

1. Central Networks<sup>5</sup>: West (CN West), now Western Power Distribution: West Midlands (WMID)
2. Central Networks<sup>5</sup>: East (CN East), now Western Power Distribution: East Midlands (EMID)
3. Electricity North West Limited (ENWL)
4. CE Electric UK<sup>6</sup>: Northern Electric Distribution Limited (NEDL), now Northern Powergrid: Northeast Ltd (NPGN)
5. CE Electric UK<sup>6</sup>: Yorkshire Electricity Distribution plc (YEDL), now Northern Powergrid: Yorkshire Plc (NPGY)
6. Western Power Distribution: South Wales (SWALES)
7. Western Power Distribution: South West (SWEST)
8. UK Power Networks<sup>7</sup>: London Power Networks (LPN)
9. UK Power Networks: South East Power Networks (SPN)
10. UK Power Networks: Eastern Power Networks (EPN)
11. Scottish Power: Distribution (SPD)
12. Scottish Power: Manweb (SPMW)
13. Scottish & Southern Energy: Hydro (SSEH)
14. Scottish & Southern Energy: Southern Electric Power Distribution (SSES).

## Ofgem and stakeholder role in driving performance improvements

1.6. Each DNO is required to report to us each year on various aspects of their performance. We review this data to ensure that companies adhere to the price control revenue restrictions and that they comply with their licence conditions. We also use this information when we review the price control arrangements and look to enhance incentives for the companies to continue to improve. We think stakeholders, including customers, also play an important role in encouraging the companies to continue to improve their performance. Access to good information on how the companies are performing is critical if they are to play this role.

1.7. In the past we have published separate comprehensive and technical documents on areas such as quality of service (customer service), connections and costs. This is the second condensed report that brings together and summarises a number of key indicators of the DNOs performance. This report

<sup>5</sup> In April 2011, Western Power Distribution (WPD) acquired the two distribution businesses and licences owned by Central Networks (CN). This means that from April 2011 the 14 distribution licences are owned by one of six companies.

<sup>6</sup> In November 2011, CE Electric UK (CE) was renamed Northern Powergrid (NPG).

<sup>7</sup> In October 2010 UKPN acquired three distribution businesses and licences previously owned by Electricité de France (EDF).



covers performance in 2010-11, the first year of the fifth electricity distribution price control (DPCR5) which runs from 1 April 2010 to 31 March 2015.

1.8. Network users and other stakeholders (such as local authorities and energy retailers) can encourage the DNOs to improve their performance by engaging with the DNOs to help them understand what their needs are and what improvements they are prepared to pay for. The broad measure of customer satisfaction, which will be active from 2012-13, provides DNOs with an opportunity to earn rewards if they are particularly successful in understanding and responding to stakeholder requirements. The companies should be actively seeking stakeholders' input, particularly as they begin engagement exercises for the next price control.

### **Changes from previous annual report**

1.9. This report aims to present information in a format that is easy to understand, allowing stakeholders to compare and track the DNOs' overall performance. We have endeavoured to integrate the comments and suggestions received on the 2008-09 and 2009-10 joint report and the new measures introduced in DPCR5. As a result this document has the following structure:

- Chapter 2 – Overview of performance in 2010-11
- Chapter 3 – Network investment, expenditure and outputs
- Chapter 4 – Safety, reliability and availability
- Chapter 5 – Customer satisfaction
- Chapter 6 – Connections
- Chapter 7 – Environment
- Chapter 8 – Financial issues
- Chapter 9 – Compliance.

1.10. Summary tables of the DNOs' performance in 2010-11 are included in this report. More detailed specific and historical information is available on our website and in the associated documents published with this report.

1.11. We have refined the selection and composition of the traffic light indicators specified in the 2008-09 and 2009-10 report which covered the final two years of the previous price control. We will continue to evaluate refinements in future reports and again seek comments on the content and format of this report.

## 2. Overview of performance in 2010-11

This chapter provides a snapshot of the distribution network operators' (DNOs) performance against six key indicators in 2010-11. This is the first year of the fifth electricity distribution price control (DPCR5), which runs from 1 April 2010 to 31 March 2015.

2.1. In October 2010, Ofgem introduced a new framework for network regulation. The RIIO model (revenue = incentives + innovation + outputs) was designed to promote smarter gas and electricity networks for a low carbon future. The sixth electricity price control will be set using the RIIO model. The RIIO model categorises the outputs DNOs will be expected to deliver into six primary output categories:

1. Reliability and availability
2. Customer satisfaction
3. Safety
4. Connections
5. Environment
6. Social obligations.

2.2. The performance snapshot for 2010-11 is set out similar to the RIIO model's six primary output categories. The DPCR5 requirements were not designed to fit into these categories. Nevertheless, specifically presenting performance against these output areas starts to provide an indication of DNOs' performance relative to the RIIO categories.

2.3. For 2010-11 we have created the four traffic light performance indicators shown in Table 2.1: reliability and availability; customer satisfaction; connections; and social responsibility.

2.4. There is no traffic light performance indicator on each DNO's overall safety performance in this report. All DNOs are subject to industry safety legislation and standards and are monitored by the Health and Safety Executive (HSE) independently of Ofgem.

2.5. Although we monitor the DNOs' environmental performance, as shown in Chapter 6, the format of the data did not lend itself to presentation as a traffic light indicator. We are looking to collect data in a more comparable form to produce an environmental traffic light indicator in future reports.

### **DNO performance snapshot for 2010-11**

2.6. A performance snapshot for 2010-11 against the five key indicators is set out in Table 2.1. The composition of the traffic light indicators is described below. A comprehensive description of the scoring methodology for each indicator is provided in Appendix 7.

**Table 2.1 DNO performance snapshot for 2010-11**

Performance indicator	Reliability and availability	Customer satisfaction	Connections	Social responsibility	Secondary network deliverables	Environment
WPD West Midlands					Data not sufficiently robust to report.	Data in 2010-11 not amenable to design of a traffic light indicator.
WPD East Midlands						
Electricity North West						
NPG Northeast						
NPG Yorkshire						
WPD South Wales						
WPD South West						
UKPN London Power						
UKPN South East Power						
UKPN Eastern Power						
Scottish Power Distribution						
Scottish Power Manweb						
SSE Hydro						
SSE Southern						

Notes: A small traffic light indicator represents partial or specific performance and is a narrow representation of overall performance in that area.  
An environmental performance traffic light is not used this year as the data currently collected is not easily comparable. We intend to produce an environmental traffic light in future reports.

### Performance summary

2.7. Due to concerns about the robustness of data from the majority of the DNOs, we have not reported the secondary network deliverables indicator. The environmental performance data we collected in 2010-11 does not lend itself to producing a traffic light indicator. We will look to address both of these concerns and to include the two abovementioned indicators in future reports.

### Reliability and availability

2.8. Customer Interruptions (CI) and Customer Minutes Lost (CML) form the basis of the reliability and availability indicator. CI and CML are lagging indicators of network investment. A network which is kept in good condition will have fewer and shorter interruptions. A network which is inadequately maintained will

degrade and, after a time, have more frequent and lengthy faults which will be reflected in CI and CML performance.

2.9. The traffic light indicator is a measure of the DNOs' actual performance against their respective individual targets. CI is the average number of interruptions experienced (per 100 customers). CML is the number of minutes of lost supply (per customer). We set targets for both measures for each DNO at the start of the price control. In each instance, performance better than the target results in a reward and performance worse than the target results in a penalty.

2.10. The reliability and availability indicator shows green for DNOs which beat both their CI and their CML target, amber for DNOs which beat one of their targets and red for DNOs which beat neither of their targets.

2.11. On average in 2010-11, DNOs beat their CI and CML targets by nine per cent and 11 per cent respectively. Over the period 2002-03 to 2010-11, CI and CML performance under the Interruptions Incentive Scheme (IIS) improved by 17 per cent and 25 per cent respectively<sup>8</sup>. This reflects a strong improvement in quality of service and customers' experience.

### **Customer satisfaction**

2.12. The indicator for customer satisfaction is based on the quality of telephone performance measure. This measure is derived from monthly customer satisfaction surveys. DNOs were rewarded or penalised based on their overall annual score.

2.13. As telephony performance is a limited measure of customer satisfaction and has low materiality in the price control, we have used a small traffic light in Table 2.1. The traffic light shows green for DNOs which gained a reward and amber for DNOs which did not receive a reward.

2.14. Four of the 14 DNOs received a reward under the telephony incentive scheme for performance in 2010-11. The telephony incentive scheme has continued to be applied in 2011-12 but from 2012-13 it will be replaced by the broad measure of customer satisfaction which covers three customer satisfaction measures: telephony via a customer survey; a complaints metric; and an assessment of stakeholder engagement.

### **Connections**

2.15. The indicator for connections performance is based on performance against the competition tests; Connections and Distributed Generation (DG)<sup>9</sup> Standards of Performance; and stakeholder feedback from the DG fora.

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<sup>8</sup> CI and CML numbers have been weighted by type of interruption and exclude storms and other exceptional events as further explained in Chapter 4.

<sup>9</sup> Distributed generation is any electricity generation which is connected directly to the distribution network, as opposed to the transmission network, as well as combined heat and power schemes of any scale.

2.16. The Electricity (Connections Standards of Performance) Regulations<sup>10</sup>; and the Distributed Generation (DG) Standards of Performance Direction<sup>11</sup> set out minimum service levels for DNOs in respect of individual customers and the payments that must be made to customers should the DNO fail to meet these standards. These Standards of Performance came into force in October 2010.

2.17. DNOs have a key role in supporting the integration of DG into their networks. A series of discussion fora were held to explore stakeholder feedback on the experience of getting DG connected to a distribution network. Strong concerns were raised by DG and other stakeholders regarding the level of service experienced across the industry.<sup>12</sup> For this, we have assigned all DNOs an amber component rating. DNOs have put new processes in place to improve how they address the needs of this important customer group and service levels will be monitored through a second round of DG fora.

2.18. For 2010-11, the first year of the DPCR5 price control, no DNO had come forward for the competition test. This means that in 2010-11, no DNO had any market segments that passed the competition tests. All companies were therefore assigned an amber component rating.

2.19. The connections guaranteed standards of performance were only in place for six months of the year therefore for this year all DNOs were assigned an amber component rating.

2.20. For future years we envisage refining the connections traffic light to reflect each DNO's competition test outcomes, performance under the broad measure, full year performance across the range of guaranteed and DG standards and potentially the outcome of connections related determinations.

### **Social responsibility**

2.21. The social obligations performance indicator is based on investment to improve the network for worst served customers (WSCs)<sup>13</sup>, use of the undergrounding funding mechanism and awards from the electricity discretionary reward scheme (DRS).

2.22. The current price control introduced a new WSC funding mechanism to improve service to customers experiencing large numbers of interruptions over a number of years. Costs incurred by DNOs in improving service to WSCs can be recovered following the end of the DPCR5 period, up to a limit defined for each DNO according to the number of WSCs on its network.

2.23. At the end of the price control each DNO may recover expenditure on the undergrounding of network cables in areas of outstanding natural beauty (AONBs)

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<sup>10</sup> Electricity (Connections Standards of Performance) Regulations 2010. Statutory Instrument 2088.

<sup>11</sup> Direction under paragraph 15a.16 Of Standard Condition 15a (Connection Policy And Connection Performance) of the Electricity Distribution Licence

<sup>12</sup> Further information on the feedback from DG stakeholders is available on our website at: <http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=220&refer=NETWORKS/ELECDIST/POLICY/DISTGEN>

<sup>13</sup> A Worst Served Customer is defined as a network user who has had 15 or more interruptions to supply over three years and at least three interruptions in each of those three years.

and National Parks, up to a certain limit. This funding limit was based on a survey of Great Britain customer willingness to pay. DNOs are expected to consult with local stakeholders on where and how best to use the allowance.

2.24. Frontier and innovative performance by DNOs in the field of customer service is recognised through the DRS Scheme. The scheme provides a £1 million fund to reward best practice in customer service areas which cannot be easily measured or incentivised through more mechanistic regimes, such as corporate social responsibility and supporting vulnerable customers. As the scheme has been in place since 2006, we expect DNOs to have identified their stakeholders' priorities, used these to shape their company strategy and measured the impact of their initiatives on stakeholders and the environment. In recent years the panel has not awarded the full amount of the DRS in recognition that DNOs are not meeting these expectations.

2.25. The traffic light shows green for DNOs which took advantage of two or more of these mechanisms, amber for DNOs which took advantage of one of these mechanisms and red for DNOs which took advantage of none of these mechanisms. A small traffic light was used to reflect that some of these initiatives are new or modified and others are available for use at any time during the price control. In 2010-11 not all DNOs used these schemes but we anticipate that 2010-11 performance may not be representative of long term performance in these areas.

2.26. The use of expenditure as an indicator of performance on these aspects of social responsibility may be reviewed in subsequent reports. We will look to include the stakeholder engagement component of the broad measure from 2012-13.

### **Network health index**

2.27. Secondary network deliverables are new measures introduced in DPCR5 to help us determine if DNOs have effectively delivered the network investment programmes that customers have funded. These measures incorporate leading indicators which reflect present activity to sustain the network for the future.

2.28. Secondary network deliverables are assessed using three measures:

- health indices (HI), measuring the condition of the network
- load indices (LI), measuring the capacity and loading at substations
- asset fault rates.

2.29. The DNOs provide data on these areas in a common framework, which reflects the individual asset management practices of each company.

2.30. The DNOs have committed to deliver the agreed secondary network deliverables in respect of asset loading, health and fault rates by March 2015, the end of the DPCR5 period. The agreed measures fully reconcile with each DNO's respective network investment allowances for asset replacement and

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reinforcement up to the end of the price control period and there are financial consequences for under delivery.<sup>14</sup>

2.31. Disappointingly, we are not publishing the secondary network deliverables indicator in this report as we are not confident in the robustness of the data. A number of DNOs have resubmitted data, which in places considerably revised their 2011 formal submissions under the licence.

2.32. We expect all DNOs to provide robust data across all metrics, both as part of DPCR5 and, importantly, in their submissions for the next price control RII0-ED1. Where we do not have confidence in a company's data, their plans will be subject to greater regulatory scrutiny and, if required, may take enforcement action.

## **Environment**

2.33. Under the current price control, we monitor several aspects of the DNOs' environmental performance. We continued the application of the distribution losses incentive scheme and monitored business carbon footprint, oil leakage and sulphur hexafluoride<sup>15</sup> leakage.

2.34. We also introduced further initiatives to encourage environmental innovation through the Low Carbon Networks Fund (LCNF). In 2010-11, the LCNF allocated £63.6m of the annual funding limit of £64m. The panel were impressed with the overall quality and ambition of the 11 submissions received.

2.35. The environmental performance data we currently collect does not lend itself to a traffic light indicator. We have refined the Regulatory Instructions and Guidance<sup>16</sup> on the reporting of environmental data we collect to be able to report in future on areas such as business carbon footprint, oil losses and sulphur hexafluoride losses. There is an environmental indicator placeholder in the table to represent this.

2.36. In future, we will look to use improvements in business carbon footprint, oil leakage and SF<sub>6</sub> leakage as comparative measures to represent each DNO's environmental performance. We would potentially also look to use electrical losses.

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<sup>14</sup> Electricity Distribution Price Control Review, Final Proposals, Incentives and Obligations, December 2009, 145/09, pp. 98-105.

<sup>15</sup> Sulphur Hexafluoride (SF<sub>6</sub>) is a greenhouse gas used by DNOs as an insulator in electrical switchgear.

<sup>16</sup> DPCR5 Regulatory Instructions and Guidance (RIGs) v.3 March 2012. Ref: 36/12.

### 3. Network investment, expenditure and outputs

This chapter sets out key figures for DNO expenditure against allowances; composition of expenditure; and expenditure on workforce renewal.

3.1. In the fifth electricity distribution price control (DPCR5) we set each electricity distribution network operator (DNO) an allowance for capital expenditure (capex)<sup>17</sup> and operating expenditure (opex)<sup>18</sup> for the period. This chapter reports each DNO's capex and opex compared to their allowances.

3.2. The Information Quality Incentive (IQI) mechanism is designed so that underspends against the allowances are shared between DNOs' shareholders and customers, and overspends present an additional expense shared between DNOs' shareholders and customers. Not all areas of expenditure are subject to the IQI. See DPCR5 Final Proposals document for further details.<sup>19</sup>

3.3. Expenditure on network investment was significantly lower in 2010-11 than forecast. On average across the DNOs, capex (also referred to as network investment) was 73 per cent of 2010-11 allowances. We will continue to monitor DNO delivery of the outputs associated with network investment closely, notably in the forthcoming mid-period review of secondary network deliverables progress.

3.4. This chapter further provides information of the composition of each DNO's in-year expenditure. DNO expenditure on workforce renewal is also outlined in this chapter. This allowance was provided to facilitate the investment required to build and maintain the skilled workforce needed to operate the networks in future.

#### Reported expenditure in 2010-11 against DPCR5 allowances

3.5. Figures 3.1 and 3.2 set out the capex and opex for 2010-11 compared to the allowance.<sup>20,21,22,23</sup> These figures and statistics quoted in the following text exclude all pension costs and are on a 2010-11 price basis. The information presented in the below figures is also available in the excel file published with this report.

<sup>17</sup> Capital expenditure (capex) is expenditure on investment in long-lived distribution assets, such as underground cables, overhead electricity lines and substations.

<sup>18</sup> Operating expenditure (opex) is the expenditure incurred by DNOs as a result of performing their business operations and maintaining their network.

<sup>19</sup> Electricity Distribution Price Control Review, Final Proposals, Incentives and Obligations, December 2009, 145/09, pp. 107-113. Available at:

<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/DPCR5/Pages/DPCR5.aspx>

<sup>20</sup> For the purposes of this report, expenditure relating to connection projects has been excluded from both capex and the capex allowance.

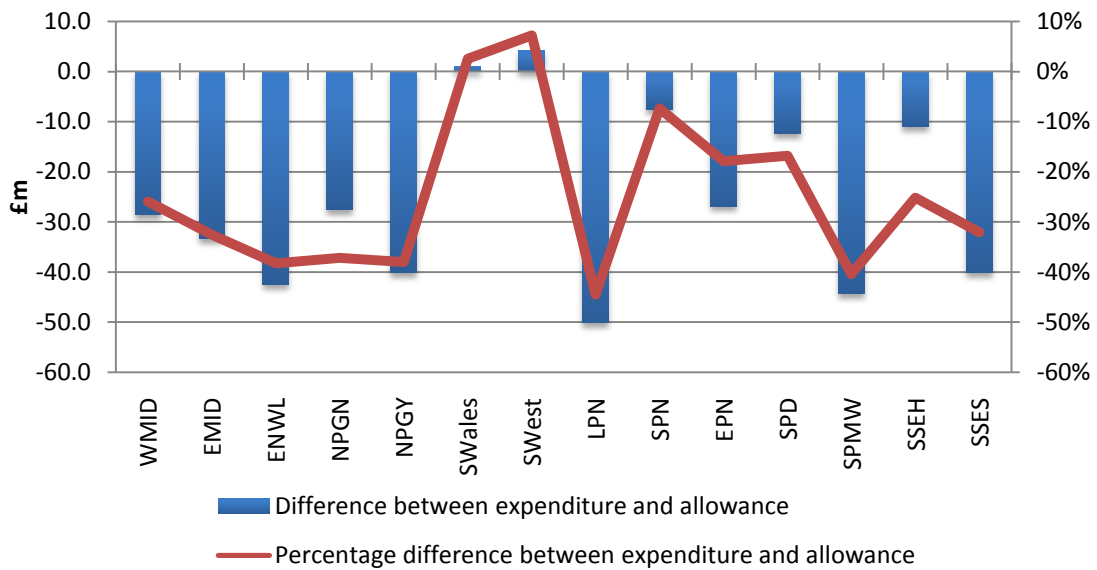
<sup>21</sup> Top-up, stand-by and enhanced system security (ES4) costs incurred outside of the price control have all been removed from capex, although a portion of these would have been incurred under Closely Associated Indirects. ES4 costs amounted to £15.1m in 2010-11.

<sup>22</sup> Expenditure on Undergrounding in designated areas and Worst Served Customer schemes (described in Chapter 5) is included in capex but, since these costs are recovered at the end of the price control, no specific allowance is included in the capex allowance.

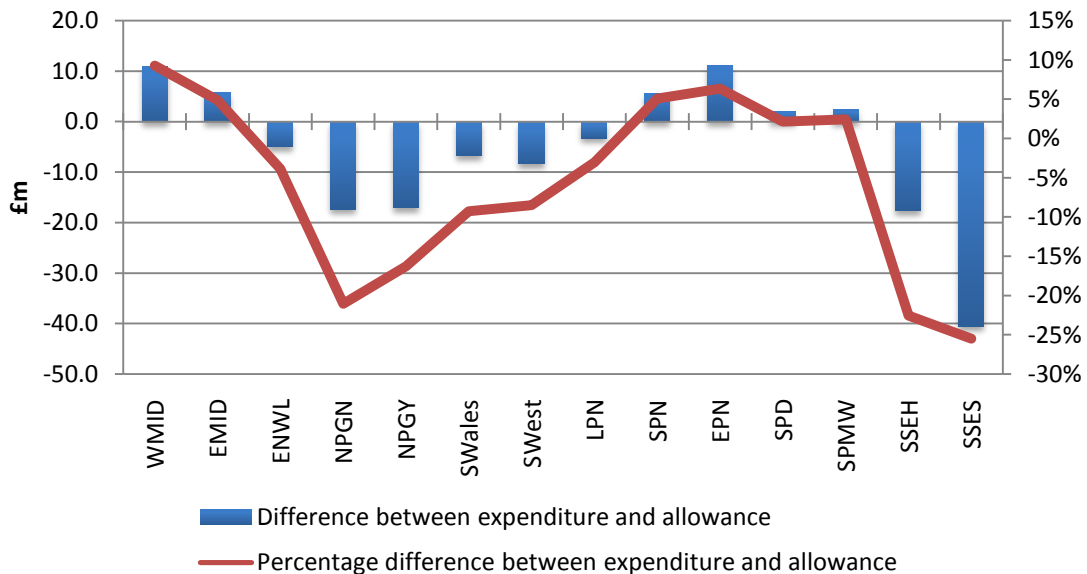
<sup>23</sup> Income from connection projects which relates to Closely Associated Indirects (a sub category of opex) has been subtracted from Closely Associated Indirects expenditure.



**Figure 3.1 Capital expenditure against allowance in 2010-11 (£2010-11 price basis)**



**Figure 3.2 Operating expenditure against allowance in 2010-11 (2010-11 price basis)**

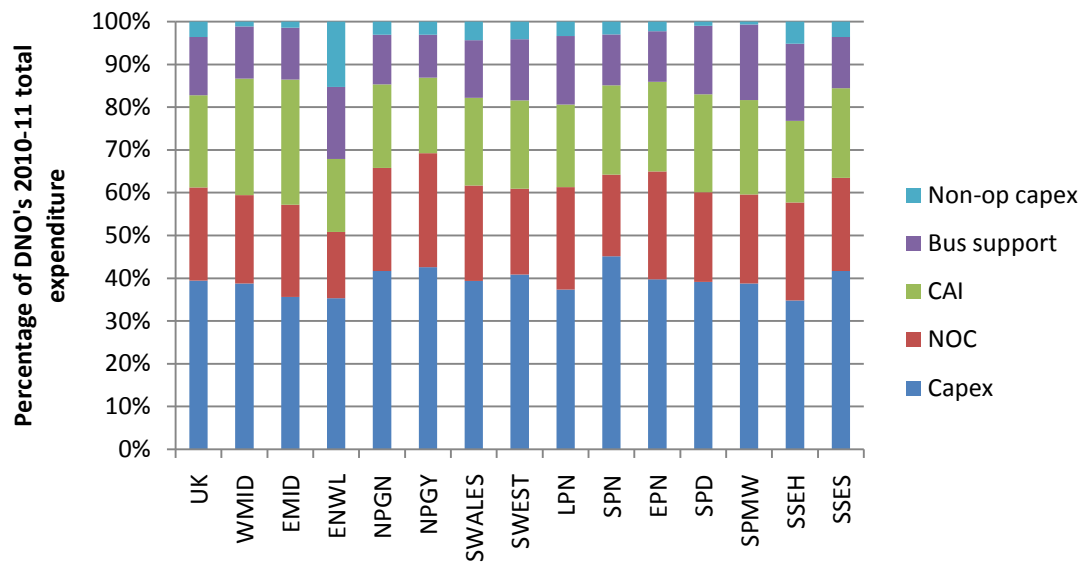


3.6. In 2010-11, DNOs underspent against the capex allowance by a total of £359.0 million (equivalent to 27 per cent) and underspent against the opex allowance by £77.6 million (equivalent to five per cent). Underspensing against the allowance is not an issue provided that the DNO meets its statutory obligations and delivers the outputs it agreed to by the end of the price control period.

## Breakdown of expenditure

3.7. Figure 3.3 shows the breakdown of expenditure for each DNO in 2010-11. The expenditure categories shown are for capex and opex which is the sum of: network operating costs (NOC)<sup>24</sup>, closely associated indirects (CAI)<sup>25</sup>, business support costs<sup>26</sup> and non-op capex<sup>27</sup>.

**Figure 3.3 Breakdown of each DNO's expenditure in 2010-11**



## Secondary network deliverables

3.8. During the DPCR5 consultation process, we identified the need for a leading measure which maps network investment spend to the delivery of results. The existing interruptions measures provide an indication of the impact of network investment on network performance by a DNO over the long run. However, if there is underinvestment in the network, the impacts on interruptions performance may not be visible for some time.

3.9. To address this, we introduced new measures of DNO network stewardship in DPCR5 in the form of the network load index (LI) and health index (HI). These indices monitor the capacity and condition of network assets as indicated by each DNO's assessment of their own assets. The DNOs provide data in a common framework, which reflects the individual asset management practices of each company.

<sup>24</sup> Network Operating Costs consist of the costs incurred in the day to day running of the network. This includes the following activities: dealing with faults; network inspections and maintenance; tree cutting.

<sup>25</sup> CAI collectively includes the costs of the following network specific support activities: Network Design and Engineering; Project Management; Engineering Management and Clerical Support; System Mapping; Control Centre; Call Centre; Stores; Operational Training; Vehicles and Transport.

<sup>26</sup> Business Support Costs consist of the costs incurred from the following support activities: IT & Telecoms, Property Management, HR & Non-Operational Training, Finance and Regulation and CEO costs.

<sup>27</sup> Non-op Capex is expenditure on new and replacement assets which are not system assets.

3.10. In agreeing the HI outputs at the time of the price control, each DNO provided us with forecasts of what the health of the assets on their networks would be at the end of the price control period in 2015<sup>28</sup> based on two scenarios – one assuming the DNO makes no investment on the network and one assuming that the DNO makes the investments set out in its plans. For the LI outputs, the DNOs provided similar forecasts looking at the capacity and loading of the substations on their networks.

3.11. The difference between the abovementioned 'no investment' and 'with investment' forecast scenarios represent what the DNO has agreed to deliver during the price control.

3.12. Each year, the DNOs provide data on capacity and loading at substations, on asset health and on fault rates.

3.13. The DNOs have committed to deliver the agreed outputs in respect of asset loading, health and fault rates over the DPCR5 period. The agreed outputs data fully reconciles with each DNO's respective network investment allowances for asset replacement and reinforcement up to the end of the price control period. There are financial consequences for under delivery.<sup>29</sup>

3.14. There are no agreed network outputs set for individual years of the price control. As such, DNOs can meet their DPCR5 agreed outputs by increasing network investment activity in the remaining years of price control.

3.15. Although a DNO may appear to benefit financially in the short term from underspending against the agreed network investment allowance, there is a penalty for not achieving secondary network deliverables by the end of the period.

### **Secondary network deliverables performance indicator**

3.16. We have been working with the DNOs to develop an objective assessment methodology to generate an interim indicator of progress towards the health index deliverable. There are no secondary network deliverables agreed for individual years of the price control so this was based on 2010-11 progress towards the end of period deliverable.

3.17. Disappointingly, we are not publishing the secondary network deliverables indicator in this report as we are not confident in the robustness of the data. A number of DNOs have resubmitted data, which in places considerably revised their 2011 formal submissions under the licence. We will be reviewing companies' progress as part of the mid-period review.

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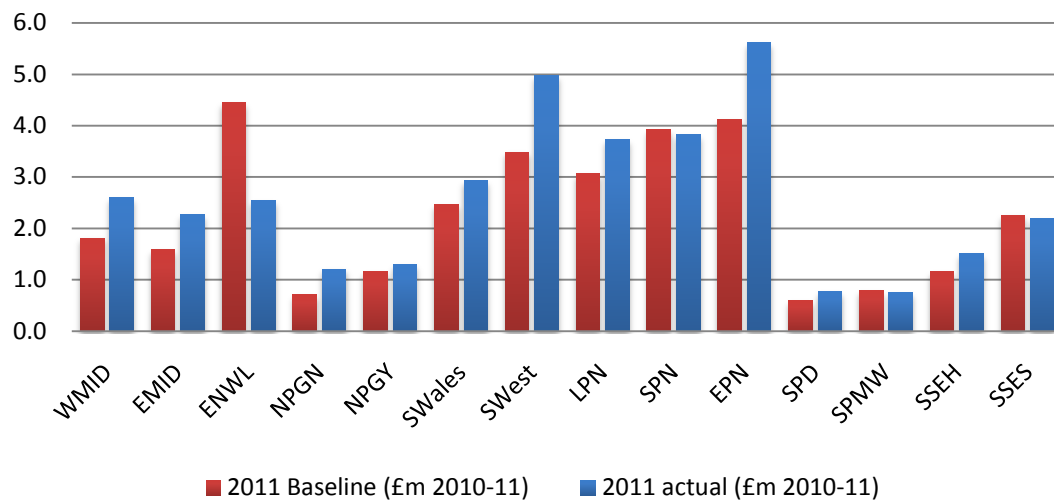
<sup>28</sup> For example, the number of assets that would be in need of replacement.

<sup>29</sup> Electricity Distribution Price Control Review, Final Proposals, Incentives and Obligations, December 2009, 145/09, pp. 98-105.

## Workforce renewal

3.18. Sustainability of the operational workforce is essential to the long term operation of distribution networks. To ensure sustainability and renewal of the necessary skill sets, DNOs were provided with funding under the Closely Associated Indirects Allowance specifically for operational workforce renewal, including training of staff. Figure 3.4 shows each DNO's expenditure in 2010-11 against the DPCR5 allowance for workforce renewal. Each DNO's allowance may be used at any point over the DPCR5 period.

**Figure 3.4 Workforce renewal expenditure**



3.19. Figure 3.4 shows what each DNO spent under the workforce renewal mechanism in 2010-11. This is a 'use it or lose it' allowance which is available over the DPCR5 period.

## 4. Safety, reliability and availability

This chapter sets out the electricity distribution companies' performance in 2010-11 against the interruptions incentive scheme; the Electricity Standards of Performance Regulations; tree-cutting for line clearance; and flood defence.

4.1. Network reliability is one of the key priorities for network regulation. Customers expect electricity distribution network operators (DNOs) to minimise interruptions and to restore supply as quickly as possible. We place financial incentives on DNOs to deliver an appropriate level of service, based on a number of key performance metrics.

4.2. The Interruptions Incentive Scheme (IIS) is the main reliability and availability mechanism in the current price control. It uses two key performance metrics to assess reliability and availability across the 14 DNOs: the number of customer interruptions per 100 customers (CI) and the duration of these interruptions to supply per customer known as customer minutes lost (CML). 2010-11 continued the trend of improving network reliability and availability. Over the period 2002-03 to 2010-11, CI and CML performance improved by 17 per cent and 25 per cent respectively.<sup>30</sup>

4.3. Furthermore, this chapter shows DNO performance against the Electricity Standards of Performance Regulations<sup>31</sup>. These Standards set out minimum service levels for DNOs and payments due to customers should the DNO fail to meet these standards.

4.4. All DNOs are subject to industry safety legislation and standards and are monitored by the Health and Safety Executive (HSE) independently of Ofgem. We collected data on each DNO's tree cutting and flood defence activity in 2010-11 and have outlined this below.

### Quality of service metrics

4.5. CI and CML metrics are used to evaluate DNO performance and the rewards or penalties under the IIS scheme. CI is the number of customers whose supplies have been interrupted per 100 customers each year, where an interruption to supply lasts for three minutes or longer, excluding re-interruptions. CMLs are the duration of interruptions to supply each year, measured by the average customer minutes lost per customer, where an interruption of supply to the customer lasts three minutes or longer.

4.6. Ofgem sets CI and CML targets for the DNOs' performance on an annual basis over the price control. An interruption to the supply of one customer for one hour costs the DNO approximately £15, based on an averaged incentive rate across all DNOs. Further information on the CI and CML metrics may be found in the Special Conditions of the Electricity Distribution Licence.

<sup>30</sup> CI and CML numbers have been weighted by type of interruption and exclude storms and other exceptional events.















































































<sup>31</sup> Electricity (Standards of Performance) Regulations 2010. Statutory Instrument 698.

4.7. Table 4.1 provides an overview of performance against quality of service metrics. CI and CML performance is shown against several different target pairs. The IIS indicators show performance against the IIS targets. These form the basis for the IIS penalty or reward. The unplanned interruptions indicator shows unplanned interruptions relative to that portion of the indicator and pre-arranged components in the third and fourth indicators. The benchmark indicator shows DNO performance against a benchmarked target.

4.8. The benchmark target is derived from the average performance of similar types of high voltage circuit and the number of these which each DNO operates. The IIS targets are derived from the benchmark but are also adjusted for historical performance. Each aspect of performance shown in Table 4.1 is explained in more detail in this chapter.

4.9. The interruptions over 12 hours indicator is based on the number of customers off supply for over 12 hours per 1000 connected customers in 2010-11. The red, amber and green performance bands are defined by thirds of the range from zero to the maximum reported value of this measure.

**Table 4.1 Quality of service indicators for 2010-11**

DNO	IIS (Incentivised)		Unplanned interruptions	Pre-arranged interruptions	HV Benchmark	Interruptions over 12 hours
	CI	CML				
WMID						
EMID						
ENWL						
NPGN						
NPGY						
SWales						
SWest						
LPN						
SPN						
EPN						
SPD						
SPMW						
SSEH						

SSSES						
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Note: A red traffic light denotes failure to meet both the CI target and the CML target. An amber traffic light denotes failure to meet one of these two targets. Green indicates that the DNO has met or performed better than the CI and the CML target. A hashed traffic light indicates that performance is within 10% of the target.

## Performance against interruption targets in 2010-11

4.10. For DPCR5 we set targets for each DNO for CI and CML. Performance against these targets is linked to financial rewards and penalties under the IIS.

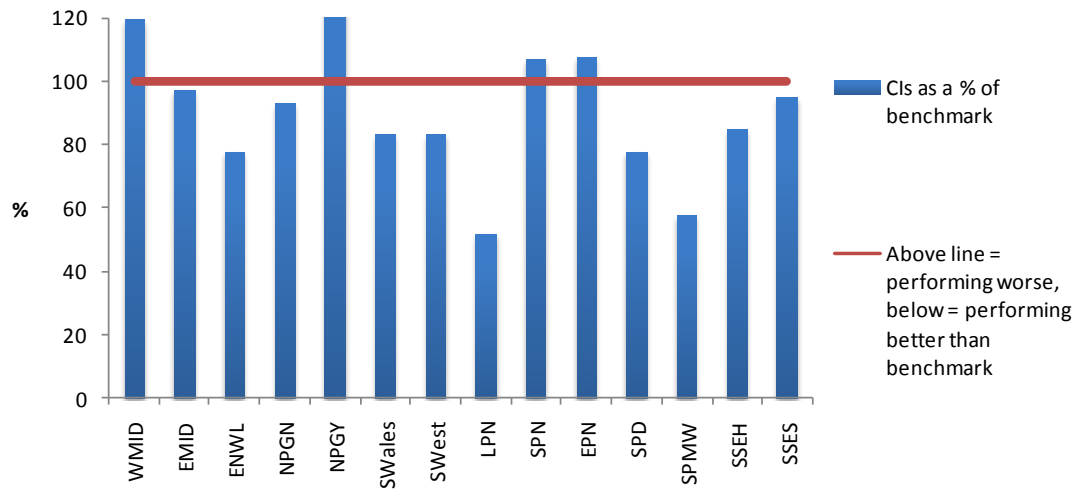
4.11. Under the IIS there are various weightings depending on the source of the interruption, a weighting of 50 per cent is applied to pre-arranged interruptions in the DNO's CI and CML count as customers are given a minimum of two days of advance notice and can make necessary arrangements to deal with the interruption. Approximately eight per cent of customer interruptions are pre-arranged.

4.12. Interruptions due to problems on the transmission network are weighted at zero per cent for CI but ten per cent for CML, acknowledging that DNOs can take steps during an incident to mitigate the duration of interruptions. A ten per cent weighting also applies for incidents caused by other connected systems.

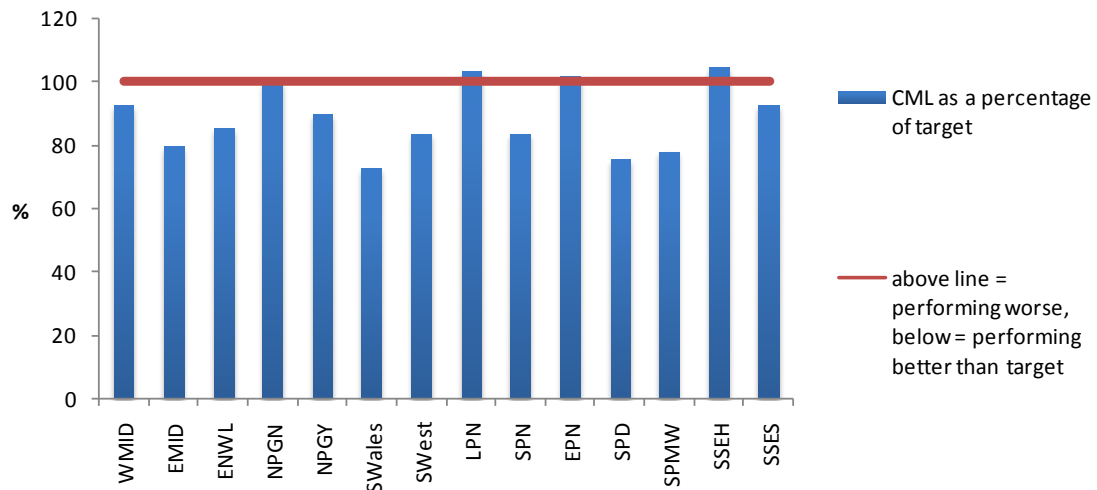
4.13. DNOs may also claim an adjustment to their CI and CML annual performance for exceptional events outside the DNO's control which had a significant impact on their performance. Ofgem will only make such an adjustment if the effects of the event exceed threshold levels set out in the licence. In 2010-11 we recorded seven severe weather exceptional events (eg storms and gales) and eight one-off exceptional events (eg vandalism, unforeseeable asset failure, etc.).

4.14. IIS targets are set taking into account DNOs' historical performance and other network factors which vary for each DNO. Figures 4.1 and 4.2 show the DNOs' 2010-11 performance relative to their IIS targets for the year. To provide an additional perspective, interruptions performance against the pure benchmark target for each DNO is shown in figure 4.3 and 4.4. DNOs that outperformed their targets are below the line and those that did not are above.

**Figure 4.1 CI – 2010-11 performance relative to IIS targets**



**Figure 4.2 CML – 2010-11 performance relative to IIS targets**



4.15. Figure 4.1 shows that in 2010-11, 13 of the 14 DNOs outperformed their CI targets and will receive a financial reward under the incentive scheme while the remaining DNO (EPN) incurred a financial penalty.

4.16. Figure 4.2 shows that 11 DNOs beat their CML targets over the same period and will receive a financial reward. The remaining three DNOs (LPN, EPN and SSEH) incurred a financial penalty.

4.17. The DNOs’ individual performance and resulting rewards and penalties for 2010-11 are set out in Table 4.2 below. The CI and CML values used here are weighted as described in paragraphs 4.11 and 4.12.



**Table 4.2 2010-11 Rewards and penalties for CI and CML**

DNO	Customer interruptions 2010-11			Customer minutes lost 2010-11		
	Target	Performance	Penalty/ reward (£ million)	Target	Performance	Penalty/ reward (£ million)
WMID	109.9	102.2	0.8	97.0	89.5	3.0
EMID	75.7	61.7	1.7	69.0	54.9	5.9
ENWL	52.9	47.8	0.6	55.6	47.3	4.6
NPGN	68.3	65.2	0.2	71.3	71.1	0.0
NPGY	75.3	69.9	0.5	76.0	68.2	2.9
SWales	79.5	58.4	1.1	44.6	32.4	2.2
SWest	73.6	61.5	0.8	51.0	42.6	2.1
LPN	33.4	24.4	2.7	41.0	42.4	-0.5
SPN	85.0	76.9	0.8	87.6	73.2	5.2
EPN	76.1	86.0	-1.6	71.1	72.4	-0.8
SPD	60.1	50.7	0.8	65.5	49.4	5.3
SPMW	45.6	39.3	0.4	61.1	47.5	2.8
SSEH	77.0	74.0	0.1	75.1	78.4	-0.5
SSES	73.8	63.6	1.3	69.1	64.1	2.4
GB total			10.3			34.6
GB average			0.7			2.5

4.18. Thirteen DNOs received a reward and one DNO received a penalty for CI performance. Eleven DNOs received a reward and three DNOs received a penalty for CML performance. On average, DNOs were awarded £740,000 for CI performance and £2.5 million for CML performance. In total, DNOs earned £45m in 2010-11 under the IIS scheme.

4.19. The underlying average number of interruptions per 100 customers has fallen (improved) by 17 per cent and the number of customer minutes lost has decreased (improved) by 25 per cent from 2002-03 to 2010-11. Over the 2010-11 reporting year, average CI was 9.2 per cent lower (better) than the average target and average CML was 10.5 per cent lower (better) than the average target. These values are weighted as described in paragraphs 4.11 and 4.12 and exclude severe weather and other one-off exceptional events.

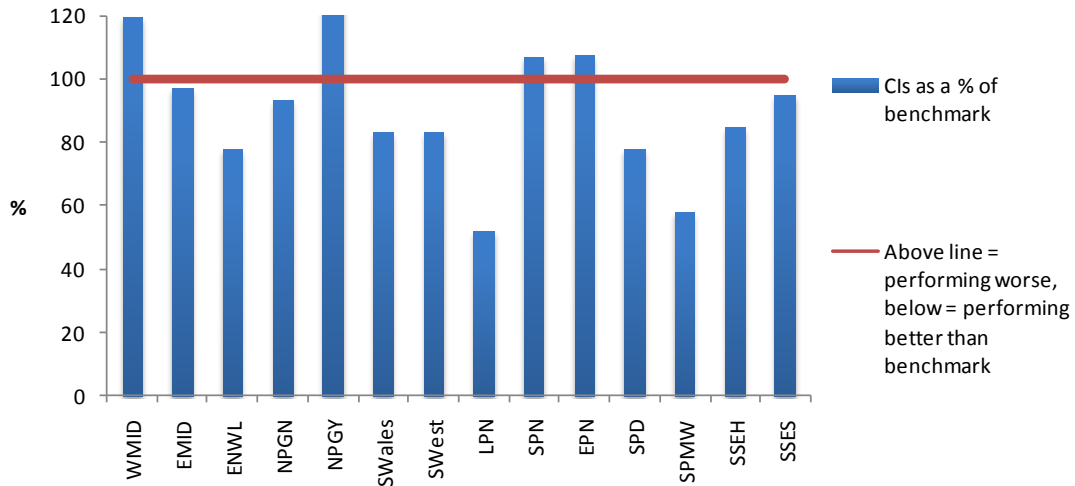
### Performance against interruption benchmark in 2010-11

4.20. DNO networks have inherited differences, including network design, configuration, and topographical factors such as length of network, customer location and customer density. In order to take these factors into account when comparing quality of supply, Ofgem, jointly with the Quality of Service Working Group, has developed a method for calculating benchmark targets for CI and CML (excluding exceptional events).

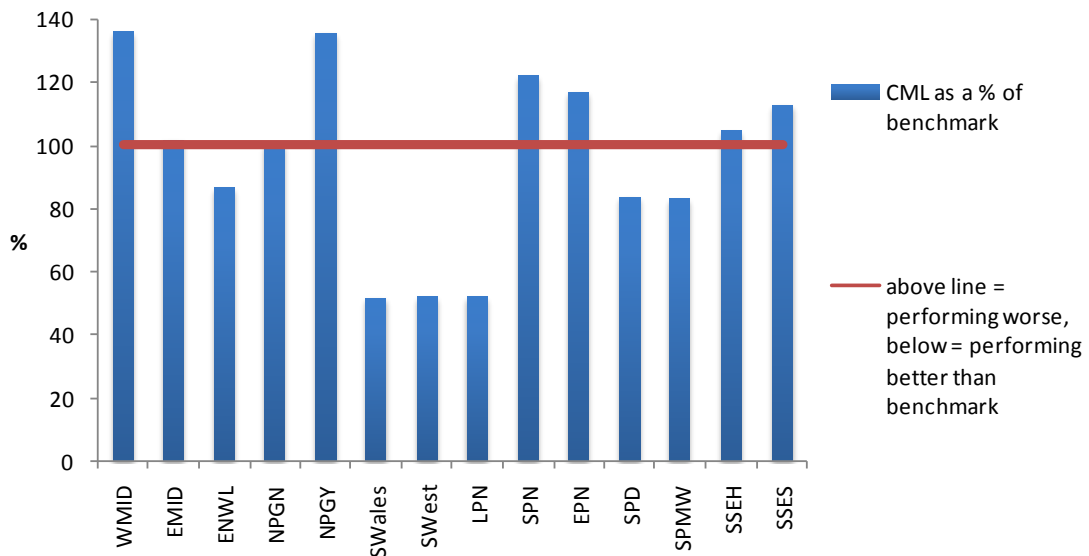
4.21. This method involves grouping physically similar parts of networks together and then comparing performance at a disaggregated level. Overall benchmarks are then calculated for each company based on the number of circuits it has in

each group, DNO customer numbers per circuit and average circuit length. DNO performance against their benchmark CI and CML targets are shown in Figures 4.3 and 4.4.

**Figure 4.3 CI – 2010-11 high voltage circuit performance against benchmarks**



**Figure 4.4 CML – 2010-11 high voltage circuit performance against benchmarks**



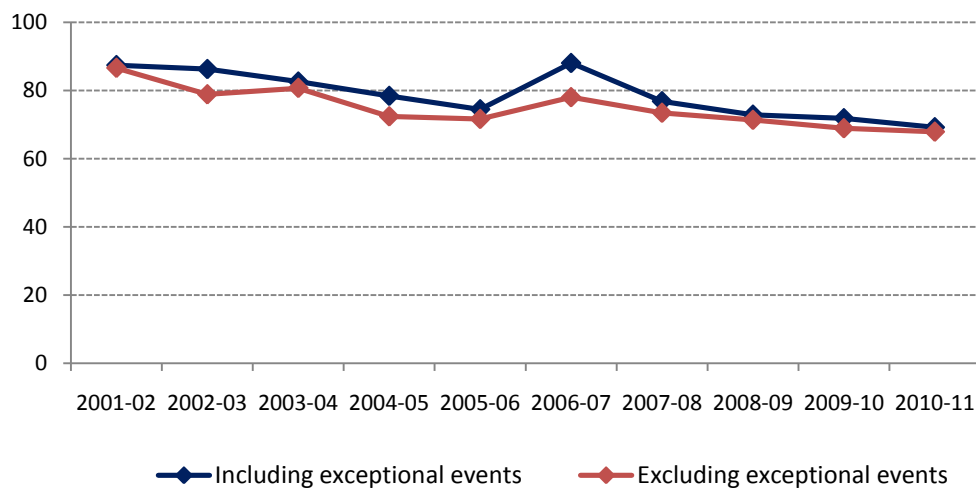
4.22. In the Figures 4.3 and 4.4, CI and CML performance below the target (red line) is better than performance above the line. The benchmark figures show a wider range of DNO performance than the Figures 4.1 and 4.2. This is because the IIS targets are a combination of historic performance and benchmarking.

**Performance trends 2001-02 to 2010-11**

**The effect of exceptional events on CI and CML**

4.23. Figures 4.5 and 4.6 show the average CI and CML performance for Great Britain's distribution networks over the past decade from April 2002 to March 2011. The CI and CML chart below are not IIS-weighted as described in paragraphs 4.10, 4.11, 4.12. This allows comparison of performance including exceptional events and performance excluding exceptional events.

**Figure 4.5 Average CI per 100 customers in Great Britain**



**Figure 4.6 Average CML per customer in Great Britain**



## Impact of performance on customers

4.24. In each year performance can vary across the DNOs due to the severity of the weather. Each DNO's CI and CML performance can be used to indicate an average customer's experience of interruptions, that is, how often they have had a power-cut, and its duration. For 2010-11, including interruptions due to storms, performance nationally for Great Britain was 69 CI and 70 CML. These values are not IIS-weighted according to the description in paragraphs 4.10, 4.11, 4.12.

4.25. Table 4.3 provides a guide to what each DNO's CI and CML performance means on average for customers. This data is based on performance including

storms. For example, based on 2010-11 performance, an average customer in Great Britain would be interrupted seven times over a ten year period. Averaging customer minutes lost across all Great Britain customers, each customer would be off supply for 1 hour and 10 minutes each year.

**Table 4.3 Interruption frequency and duration**

DNO	Customer interruptions	Average minutes of lost supply per customer per year
WMID	1 every year	1 hour 40 minutes
EMID	3 every 5 years	1 hour
ENWL	1 every 2 years	55 minutes
NPGN	4 every 5 years	1 hour 25 minutes
NPGY	7 every 10 years	1 hour 15 minutes
SWales	3 every 5 years	37 minutes
SWest	7 every 10 years	49 minutes
LPN	1 every 3 years	43 minutes
SPN	4 every 5 years	1 hour 20 minutes
EPN	9 every 10 years	1 hour 20 minutes
SPD	1 every 2 years	54 minutes
SPMW	1 every 2 years	1 hour 3 minutes
SSEH	1 every year	1 hour 56 minutes
SSES	7 every 10 years	1 hour 13 minutes
GB average	7 every 10 years	1 hour 10 minutes

4.26. Table 4.4 shows each DNO's number of customers and the number of faults that have occurred on their network. From these we can determine the average number of customers interrupted by each fault. The number of faults shown here includes those due to storms. On average there were 102 customers interrupted for every network fault in Great Britain in 2010-11.

**Table 4.4 2010/11 Customers interrupted per fault**

2010/11 DNO	Total number of Customers Interrupted	Total number of faults	Customers per fault
WMID	2,408,508	13,560	178
EMID	1,542,421	14,802	104
ENWL	1,128,266	14,147	80
NPGN	993,847	10,997	90
NPGY	1,545,118	17,472	88
S Wales	605,589	6,743	90
S West	949,855	12,899	74
LPN	533,307	7,583	70
SPN	1,685,037	11,021	153
EPN	2,944,308	19,493	151
SPD	1,006,145	13,274	76
SPMW	606,295	11,186	54
SSEH	554,821	7,021	79
SSES	1,826,844	20,187	90
GB Total	18,330,361	180,385	102

4.27. Table 4.5 shows the length of each DNO's network and the number of faults that have occurred on their network. From these we can determine the number of faults per kilometre of network. The number of faults shown here includes those due to storms. On average there were 0.228 faults for each kilometre of network in Great Britain in 2010-11.

**Table 4.5 Faults per kilometre**

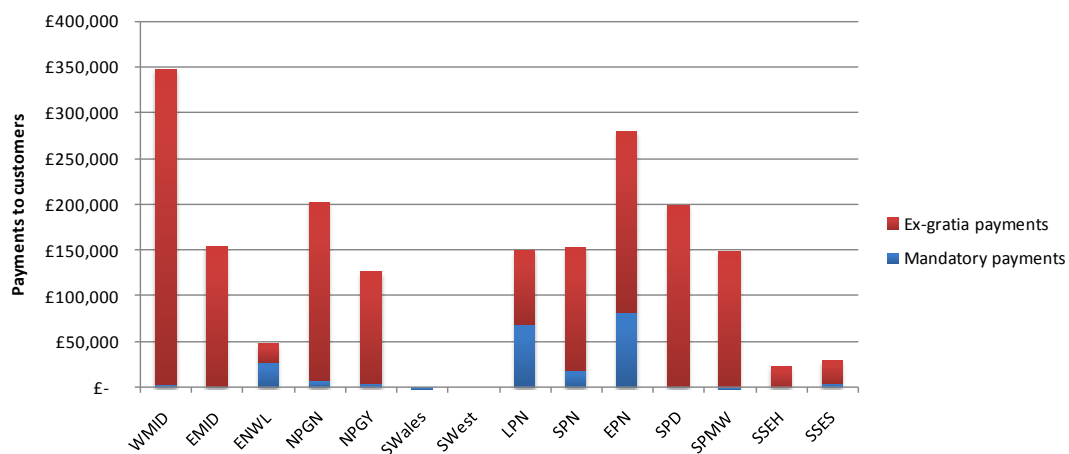
Faults per km	km	Total number of faults	Faults per km
WMID	63,459	13,560	0.214
EMID	71,700	14,802	0.206
ENWL	56,952	14,147	0.248
NPGN	40,160	10,997	0.274
NPGY	52,783	17,472	0.331
SWales	35,162	6,743	0.192
SWest	50,183	12,899	0.257
LPN	36,628	7,583	0.207
SPN	52,200	11,021	0.211
EPN	96,266	19,493	0.202
SPD	63,848	13,274	0.208
SPMW	49,680	11,186	0.225
SSEH	47,024	7,021	0.149
SSES	76,220	20,187	0.265
GB Total	792,266	180,385	0.228

## Electricity Standards of Performance

4.28. The Electricity (Standards of Performance) Regulations<sup>32</sup> specify minimum levels of service expected of DNOs. If a DNO fails to meet these Standards, the affected customer is entitled to a payment, subject to certain exemptions. Total DNO payments to customers in 2010-11 are shown in Figure 4.7.<sup>33</sup> Connection and distributed generation Standards of Performance are not included here and are shown separately in Chapter 6.

4.29. The standards cover a range of activities including supply restoration, voltage quality and notice periods. DNO performance against these standards is a useful quality of service indicator. The individual standards and payments are set out in Appendix 5.

**Figure 4.7 Electricity Standards of Performance payments**



4.30. Figure 4.7 provides information on the value of payments per thousand customers as required under the Electricity Standards of Performance (mandatory) and of the DNO's own initiative (ex-gratia). The numbers behind this chart are available in the excel file which accompanies this report.

4.31. Total payments to customers amounted to £1.86million in 2010-11. The Standards of Performance are also known as 'Electricity Guaranteed Standards'. Electricity Guaranteed Standard 2 (EGS2)<sup>34</sup>, whereby customers are eligible for a payment if supply is not restored within 18 hours, accounted for 86% per cent of total payments.

## ESQCR and tree cutting

4.32. All DNOs are subject to industry safety standards and legislation and are monitored by the Health and Safety Executive (HSE) independently of Ofgem. In

<sup>32</sup> Electricity (Standards of Performance) Regulations 2010. Statutory Instrument 698.

<sup>33</sup> The Standards of Performance are also known as the "Electricity Guaranteed Standards" (EGS). The total payments shown here include GS11 (severe weather related interruptions) and GS12 (interruptions to Highlands and Islands customers). Other reports on guaranteed standards may not include these and may therefore present different totals.

<sup>34</sup> These are outlined in Appendix 5.

DPCR5 we allocated DNOs allowances for safety related activities, such as flood defence and tree-cutting to maintain clearances around network assets.

4.33. The Electricity Safety, Quality and Continuity Regulations 2002 (ESQCR), set out a number of requirements for electricity networks, including the requirement that DNOs maintain trees a safe distance from overhead line networks. The Energy Networks Association (ENA) has produced a technical specification on overhead line clearances.<sup>35</sup>

4.34. The DNOs provide forecast business plans to Ofgem at the start of the price control which detail forecast expenditure and activities. The forecasts include an estimate of the volume of tree cutting activity anticipated for each year of the price control. Figure 4.8 shows DNO's progress relative to their forecasts.

**Figure 4.8 Progress on forecast tree-cutting volumes**



4.35. Figure 4.8 shows that DNOs have made variable levels of progress achieving their forecast tree cutting programmes. Several DNOs carried out a lower proportion of the 2010-11 tree cutting volumes than they had planned to complete. To comply with the statutory obligations placed on DNOs by the Department of Energy and Climate Change (DECC), it is expected that DNOs will need to complete their planned volumes over the DPCR5 period.

## Flood defence

4.36. Flood defence is protection installed to limit or eliminate the risk of flood damage to a substation. For DPCR5 DNOs have been asked to report their activity in terms of flood mitigation schemes and flooding site surveys completed for each substation. DNOs submitted a forecast of the number of substations where they expected to complete flood mitigation schemes in 2010-11 to Ofgem. Table 4.6 shows the progress that each DNO has made against these forecasts.

4.37. The majority of DNOs did not complete any schemes in 2010-11 and the overall number of schemes completed was much lower than forecast. Ofgem therefore expects the number of schemes completed by each DNO to increase

<sup>35</sup> Energy Networks Association. ENATS 43-8: Overhead Line Clearances.

significantly over the remainder of DPCR5 and will continue to monitor progress in this area closely.

**Table 4.6 Flood defence activity**

	<b>Forecast 2010-11 activity volumes</b>	<b>2010-11 activity volumes</b>	<b>Per cent of forecast complete</b>
WMID	3	0	0%
EMID	4	0	0%
ENWL	10	11	Completed more schemes than forecast
NPGN	0	0	No schemes forecast for completion
NPGY	0	0	No schemes forecast for completion
SWales	6	1	17%
SWest	3	2	67%
LPN	3	0	0%
SPN	5	0	0%
EPN	6	0	0%
SPD	1	0	0%
SPMW	2	0	0%
SSEH	1	0	0%
SSES	0	0	No schemes forecast for completion



## 5. Customer satisfaction and social responsibility

This chapter sets out distribution network operators' performance against customer service incentives which include telephone response performance; the worst served customer funding mechanism; priority services; the electricity discretionary reward scheme and undergrounding of overhead lines in national parks and areas of outstanding natural beauty.

5.1. Customer service is one of Ofgem's key priorities for network regulation. Customers expect electricity distribution network operators (DNOs) to be readily contactable and responsive to the needs of their stakeholders. We place financial incentives on DNOs to deliver an appropriate level of service based on, where possible, customers' willingness to pay. DNOs also have licence obligations to ensure their services meet customers' expectations and needs.

5.2. There are a number of metrics against which customer service is assessed. These metrics form the basis of the financial incentives to encourage DNOs to deliver an appropriate level of service. DNOs receive a financial reward or penalty according to their performance.

5.3. Customer service is a key focus of the current price control (DPCR5) and the future RIIO price control framework. There has also been some delay in the DNOs making use of the funding mechanism to address the needs of worst served customers. We will continue to monitor performance in these areas and the effects of the introduction of the broad measure of customer satisfaction in 2012-13.

5.4. The electricity discretionary reward scheme (DRS) has been an effective mechanism. However, following an open letter consultation, the DRS has been terminated as it is considered that the scope of other DPCR5 incentives (ie the broad measure of customer satisfaction and the LCNF) cover activities included in the DRS.

### **Broad measure of customer satisfaction**

5.5. In 2010 we developed the broad measure of customer satisfaction as part of the review process for the current price control to capture the views of all types of customers across a range of contact experiences. The broad measure consists of three components: the customer satisfaction survey, complaints metric and DNO stakeholder engagement. The broad measure will come into effect in April 2012 for the 2012-13 regulatory year.

5.6. The broad measure of customer satisfaction provides DNOs with an opportunity to earn a financial reward if they are successful in understanding and responding to stakeholder requirements. They can also be penalised if they fail to meet the targets set out under the customer satisfaction survey and the complaints metric. Therefore, network companies are expected to actively engage with and listen to stakeholders' views about their performance.

## Telephone response performance

5.7. Pending the introduction of the broad measure of customer satisfaction in 2012-13, we continued the application of two telephony performance measures in 2010-11. These are the quality of response and the speed of response.

### Quality of response

5.8. Each DNO is assessed on the quality of its telephone response through a monthly customer satisfaction survey. DNOs may be rewarded or penalised depending on their overall annual score. Performance in DPCR5 is assessed across the three key areas listed below:

- The politeness of the members of staff
- The usefulness of the information given
- Satisfaction with the speed of response.

5.9. Customers are asked to score DNOs on a scale of 1 (very dissatisfied) to 5 (very satisfied) based on their individual experiences of the telephone conversation they had with the DNO during a power outage.

5.10. DNOs are subject to a sliding-scale penalty if their annual mean performance deteriorates below 3.9. There is a small reward of 0.05 per cent of revenue for those DNOs with annual mean scores equal to or greater than 4.4. This gives DNOs an incentive to maintain a high level of telephone performance where only exceptional performance is rewarded.

5.11. Table 5.1 shows each DNO's score for the period from 1 April 2010 until 31 March 2011 for the three assessed attributes listed above. The performance scores and rankings reported here are based on the mean annual scores.

**Table 5.1 2010-11 Quality of telephone response overall performance scores**

Rank 2010-11	DNO	2010-11 Scores	Rewards/Penalties (£m 2010-11)
1	SWales	4.64	0.39
2	SWest	4.60	0.58
3	SPMW	4.49	0.67
4	ENWL	4.43	0.00 <sup>36</sup>
5	SPD	4.42	0.77
6	EMID	4.38	0.00
7	NPGY	4.37	0.00
8	WMID	4.36	0.00
9	NPGN	4.33	0.00
10	EPN	4.30	0.00
11	SSES	4.27	0.00
12	SPN	4.24	0.00
13	SSEH	4.18	0.00
14	LPN	4.15	0.00
GB average		4.37	

Note: Quality of telephone overall performance scores are out of five.

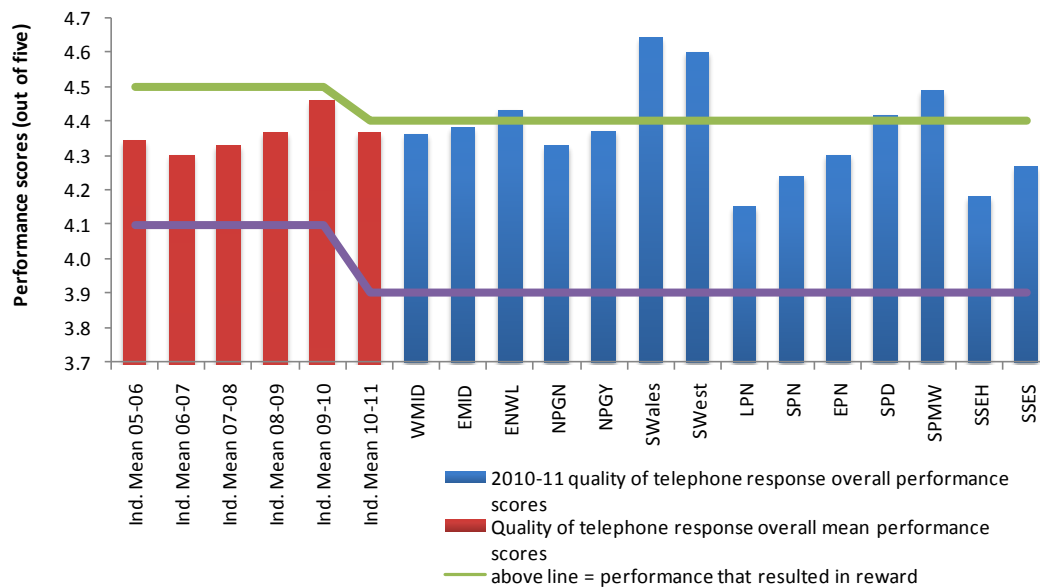
5.12. The overall assessed mean score for the 12 month period was 4.37. All DNOs recorded overall mean scores above the penalty threshold. Four DNOs were eligible for rewards for their quality of telephone response performance scores. These were SWales (4.64), SWest (4.60), SPMW (4.49) and SPD (4.42).

### Performance trends

5.13. Figure 5.1 shows that in general after a decline in 2006-07 the average quality of telephone response (both hold and redial systems) in Great Britain improved over the previous price control period (DPCR4) but has declined slightly in 2010-11. The decline may be due to the inclusion of unsuccessful calls within the telephony incentive metric from April 2010. This was included to supplement the telephony survey and to encourage DNOs to keep their unsuccessful calls to a minimum.

<sup>36</sup> Further details of ENWL's telephony response is available in Chapter 9.

**Figure 5.1 2010-11 Quality of telephone response overall performance**



**Speed of response**

5.14. DNOs must also report their performance on the speed of telephone response by an agent once a customer has decided to speak to an agent. This metric feeds into the quality of telephone response score.

5.15. In 2010-11 WMID and EMID reported performance against redial systems. All other DNOs reported performance against hold systems. Table 5.2 sets out the average speed of response (in seconds) for the period 1 April 2010 until 31 March 2011 for each DNO split by telephone system.

**Table 5.2 2010-11 average speed of telephone response (seconds)**

Hold system	
DNO	Response time (s)
WMID*	24.6
EMID*	18.5
ENWL	3.7
NPGN	12.2
NPGY	11.6
SWales	1.5
SWest	1.5
LPN	31.8
SEPN	33.8
EPN	35.0
SPD	10.4
SPMW	10.5
SSEH	19.0
SSES	18.7
Average	16.6

Note: \*WMID and EMID use radial systems. All other DNOs use hold systems.

5.16. SWales and SWest reported the fastest response times of 1.5 seconds each. An average response time of 15.8 seconds was reported for hold systems and 21.5 seconds for radial systems.

### **Worst Served Customer Scheme**

5.17. A funding mechanism of up to £42m is available over the price control period for DNOs completing work to support their worst served customers (WSCs). This was put in place because the Interruptions Incentive Scheme (IIS) did not provide adequate incentives to improve service to customers experiencing large numbers of interruptions over a number of years. Each DNO can log up their costs against this scheme and can reclaim these up to a maximum amount defined for each DNO according to the number of WSCs on its network. There is a £1,000 cap which can be reclaimed per WSC.

5.18. WSCs are defined as customers experiencing greater than or equal to five higher voltage interruptions on average over a three year period, with a minimum of three faults in each year. Expenditure may be reclaimed post-implementation for interventions which are shown to have been successful in improving service to WSCs.

5.19. In 2010-11 SWales and SWest were the only DNOs to record expenditure on schemes to improve service to WSCs. WSC is a new initiative and we anticipate that more companies will take advantage of it in time.

## Priority Services Register

5.20. DNOs have a duty to establish and maintain a Priority Services Register (PSR) of customers who are of pensionable age, are disabled, are chronically sick, have special communication needs or where a request has been made to add a person's name to the PSR.<sup>37</sup> Table 5.3 shows the percentage of customers on each DNO network who are registered on the PSR.

**Table 5.3 Customers on PSR by DNO**

DNO	Number of customers on the PSR at the end of the reporting year	Number of customers	Percentage of customers on PSR
WMID	129,046	2,446,951	5.3%
EMID	163,673	2,614,165	6.3%
ENWL	138,804	2,359,391	5.9%
NPGN	131,297	1,575,686	8.3%
NPGY	149,214	2,258,404	6.6%
SWales	74,337	1,099,333	6.8%
SWest	112,499	1,541,188	7.3%
LPN	15,184	2,251,892	0.7%
SPN	37,370	2,233,288	1.7%
EPN	13,021	3,516,859	0.4%
SPD	74,269	1,992,998	3.7%
SPMW	66,259	1,485,153	4.5%
SSEH	31,973	740,768	4.3%
SSES	98,833	2,934,581	3.4%

5.21. The DNOs have the duty to give information and advice to PSR customers and to provide a range of services for other vulnerable domestic customers, such as a service which provides a password to identify representatives of the network operator. Required services are detailed in the Electricity Distribution Licence<sup>38</sup>.

## Electricity discretionary reward scheme (DRS)

5.22. Under the DRS, the panel can allocate up to £1 million per year to DNOs who have best served the interests of their customers. The scheme is not intended to directly fund initiatives proposed by DNOs. It is instead designed to highlight leading performance within the industry and to recognise DNOs who go beyond their licence obligations in the categories of service covered by the scheme.

5.23. Each year DNOs are invited to submit entries to Ofgem detailing the initiatives and strategies they consider have best served the interests of

<sup>37</sup> Subject to certain conditions according to the Standard Conditions of the Electricity Licence.

<sup>38</sup> Electricity Distribution Licence. Condition 10. Special services and complaints procedures.

customers across the chosen categories throughout the reward period. For the 2010-11 scheme the two chosen categories were:

- wider communication strategies
- corporate social responsibility initiatives.

5.24. All the DNOs submitted entries for the scheme in 2010-11. Central Networks was recently acquired by Western Power Networks but presented an independent submission for the above categories. The panel for the 2010-11 scheme was chaired by Sarah Harrison, Senior Partner Sustainable Development, Ofgem. The other six members of the panel were:

- Audrey Gallacher, Head of Consumer Focus
- Derek Lickorish, Chair of the Fuel Poverty Advisory Group
- Tony Grayling, Head of Climate Change and Communities, Environment Agency
- Janet Wood, Utility Week
- Gretel Jones, Consumer Markets Policy Advisor, Age UK
- Sue Cox, Head of Consumer Policy, Ofwat.

5.25. The Panel recognised that the DNOs had taken account of feedback provided last year and that amongst the submissions there were several good initiatives. The Panel acknowledged that some DNOs had displayed a real commitment to focussing on customer needs and seeking continuous improvements to the service provided.

5.26. In reflection of the above, the Panel awarded £750,000 of the £1 million available. The full £500,000 award was allocated in the category of wider communications, while £250,000 was allocated in the category of corporate social responsibility. Table 5.4 provides a summary of the rewards allocated.

**Table 5.4 Customer reward scheme 2010-11**

Electricity distribution company	Wider communication strategies (£)	Corporate social responsibility (£)	Corporate social responsibility flagship awards (£)
CN	125,000	0	50,000
ENW	0	0	0
NPG	125,000	0	0
WPD	250,000	150,000	50,000
UKPN	0	0	0
SP	0	0	0
SSE	0	0	0
Measure total (£)	500,000	250,000	
Reward scheme total (£)	750,000		

### **Wider communication strategies**

5.27. An overall reward of £500,000 was available for wider communication strategies and the panel awarded the full amount this year. This was shared between three winning submissions with Western Power Distribution (WPD)

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receiving £250,000, Central Networks (CN, now part of WPD) receiving £125,000 and Northern Powergrid (NPG, previously CE Electric UK) receiving £125,000.

5.28. WPD was awarded £250,000 in recognition of the continuous wide breadth and depth of their communication strategy and the extent to which its initiatives and activities are embedded into their ongoing business practices. Its broad range of initiatives continues to demonstrate innovative thinking and effective use of the feedback opportunities provided by an established process of stakeholder engagement.

5.29. CN and NPG also received an award of £125,000 each, for the clear evolution of their strategies and the way they had taken account of learning from previous years. This included the use of new technologies and their commitment to finding out, understanding and responding to customer needs.

### **Corporate social responsibility initiatives**

5.30. An overall reward of £500,000 was available for corporate social responsibility. The Panel was disappointed that whilst there was some progress in this area, this was still not at the level expected from the companies. The view was that there was still room for improvement in the quality of submissions, specifically in relation to DNOs being able to demonstrate the measurable benefits delivered through their initiatives. Therefore, it was decided to limit the award to £250,000.

5.31. WPD received a reward of £150,000 for their use of partnerships, the way carbon reduction initiatives had been embedded within the business and their staff engagement.

5.32. In addition, two flagship awards totalling £100,000 were granted under the corporate social responsibility category. WPD received £50,000 for their Community Chest initiative which was considered a good demonstration of the impact of forging relationships with stakeholders. CN received £50,000 for their Pathfinder internet application which allowed developers of distributed generation to identify potential areas of development.

5.33. Further information about the customer reward scheme can be found on our website and the associated documents published with this report.<sup>39</sup>

### **Future of the Discretionary Reward Scheme**

5.34. The scheme has resulted in a number of customer focussed initiatives including improvements to the priority services register, working with communities and charities, improving communications with customers, particularly through new technology and facilitating the development of green technologies.

5.35. However as the scheme has run since 2006, we expected DNOs to demonstrate that they were focussing on initiatives that they had identified as

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<sup>39</sup> [www.ofgem.gov.uk/Networks/ElecDist/QualofServ/CustServRewSch/Pages/CustServRewSch.aspx](http://www.ofgem.gov.uk/Networks/ElecDist/QualofServ/CustServRewSch/Pages/CustServRewSch.aspx)



their stakeholders' priorities, demonstrate how the initiatives shaped their company strategy and measure the impact their initiatives have on stakeholders and the environment. In recent years the panel has not awarded the full amount of the DRS available to them in recognition that they are not meeting these expectations.

5.36. Ofgem published an open letter consultation seeking stakeholder views on whether to continue with the scheme, to modify it or to terminate it. We have taken into account all responses and have decided to remove the scheme on the basis that the scope of other DPCR5 incentives (ie the broad measure of Customer Satisfaction and the LCNF) cover activities included in the DRS.

### **Undergrounding in areas of outstanding natural beauty and national parks**

5.37. Each DNO has a defined amount of funding which they can recover at the end of the price control period to pay for undergrounding of network cables in AONBs and National Parks. This allowance is separate from other network asset funding because it is more expensive to put cables underground. This allowance is provided to reflect stakeholder interest in visual amenity and each DNO's funding is based on the extent of its network which crosses AONBs or National Parks.

5.38. For DPCR5 there is an overall expenditure cap on undergrounding of £65.8m (on a 2010-11 price basis). 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.<sup>40</sup>

5.39. The funding cap applies to the entire DPCR5 period. As such there are no requirements to spend it in any given year. Similarly, there is no obligation on DNOs to spend the allowances, although we would expect them to be able to communicate with stakeholders as to what they are doing and why.

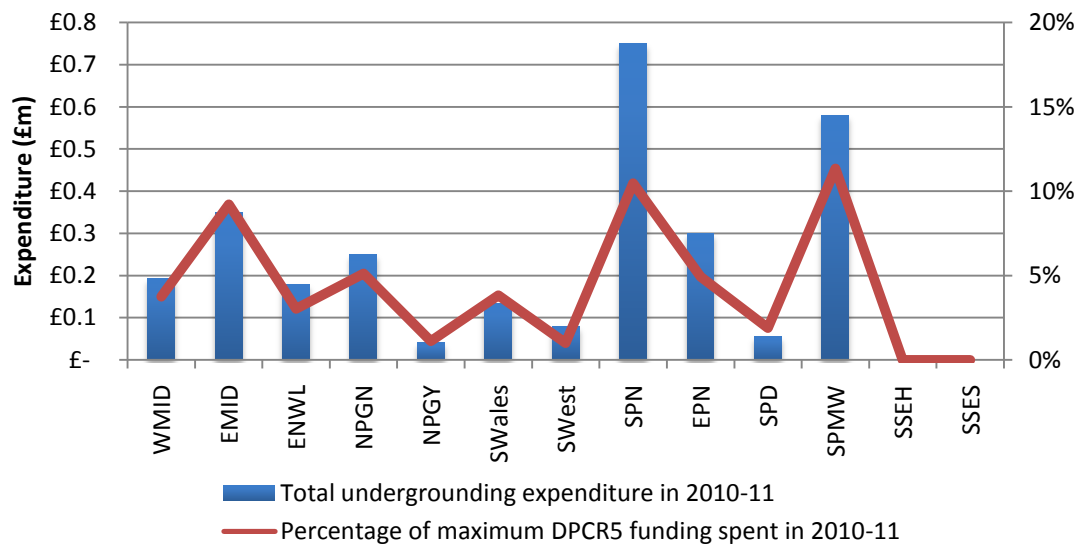
5.40. This expenditure is ultimately recovered from customers and DNOs are expected to engage with local stakeholders to determine their views, expectations and priorities.

5.41. Figure 5.2 shows each DNO's spend on undergrounding in 2010-11, the first year of the current price control period. A total of £2.91m was spent in 2010-11 for undergrounding of the £65.8m available throughout the five year period.

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<sup>40</sup> Electricity Distribution Price Control Review, Final Proposals - Incentives and Obligations, 7 December 2009, 145/09, pp. 48.

**Figure 5.2. Undergrounding expenditure**



Note: in the DPCR5 period LPN was not provided an AONB allowance.

5.42. A breakdown of DNO expenditure on undergrounding for each AONB and National Park is available in the excel file which accompanies this report.

## 6. Connections

This chapter sets out key information on competition in connections; timeliness of connection offer quotations; Connections Standards of Performance; and distributed generation connections.

6.1. The connections market is important to consumers who require a new or upgraded electricity supply<sup>41</sup>. It also has a key role to play in the efficient and timely connection of low-carbon generation to the distribution networks, a key element of the Government's plan for the transition to a low carbon economy by 2020.

6.2. The market is open to competition and a number of new players compete with incumbent network companies to provide new connections. We use the regulatory framework to protect customers and facilitate the continued development of competition in this market in order to drive efficient and timely delivery of connection services for customers.

6.3. Feedback from DG stakeholder discussion fora highlighted the potential for improvement in DNO's DG connections service. Stakeholders requested better and more timely information from DNOs and also greater transparency with regard to the scope and cost of works to provide a connection.<sup>42</sup> DNOs have put measures in place to improve how they address the needs of this important customer group and service levels will be monitored through a second round of DG fora.

6.4. This report does not cover the competition tests which were introduced in April 2010. No DNO submitted an application to submit to the test in 2010-11.

### Competition in connections

6.5. In 2010-11 a total of 196,134 metered electricity connections were completed by distribution network operators (DNOs), independent distribution network operators (IDNOs) and independent connection providers (ICPs) in Great Britain.<sup>43</sup> This represents a four per cent increase on the 188,608 connections undertaken in 2009-10.

6.6. Table 6.1 shows that 18 per cent of the connections in 2010-11 were made to IDNOs' networks and 82 per cent were made to DNOs' networks. This compares to five and nine per cent of connections being made to IDNOs' networks in 2008-09 and 2009-10 respectively.

<sup>41</sup> This refers to the upgrading of existing exit points without the provision of new exit points and must account for either an increase in capacity available to an existing exit point of the DNO network, or allow an existing exit point to be able to feed a new supply of electricity into the DNO network.

<sup>42</sup> Further information on the feedback from DG stakeholders is available on our website at: <http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=220&refer=NETWORKS/ELECDIST/POLICY/DISTGEN>

<sup>43</sup> Service alterations are excluded from DNO connection volumes but are included in IDNO reporting.

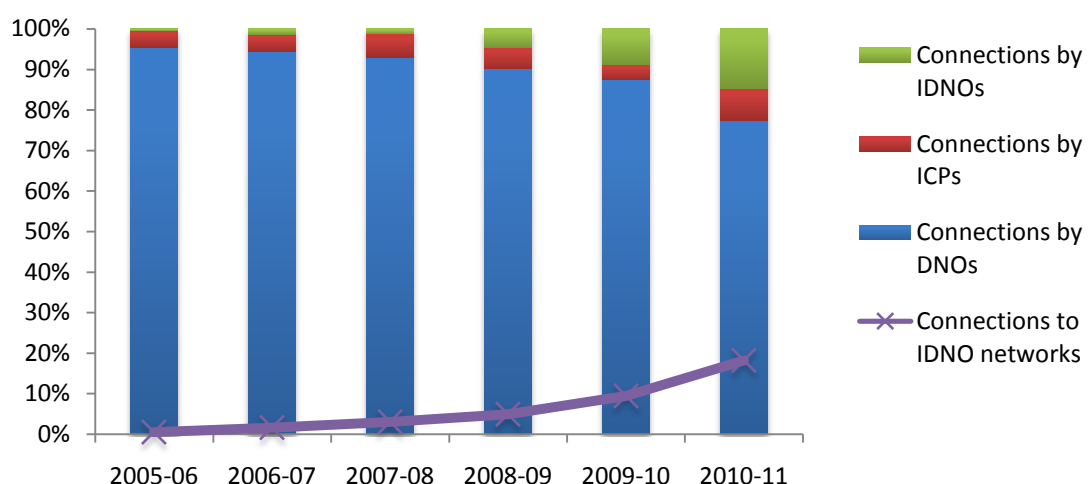
**Table 6.1 Total number of new and modified metered electricity connections**

Connections by:	2008-09		2009-10		2010-11	
	DNO	IDNO	DNO	IDNO	DNO	IDNO
Licensee	233,836 (90.1%)	12,133 (4.7%)	164,832 (87.4%)	16,634 (8.8%)	151,533 (77.3%)	29,059 (14.8%)
Independent Connection Provider	12,911 (5.0%)	678 (0.3%)	6,025 (3.2%)	1,117 (0.6%)	8,869 (4.5%)	6,673 (3.4%)
Total	246,747 (95.1%)	12,811 (4.9%)	170,857 (90.6%)	17,751 (9.4%)	160,402 (81.8%)	35,732 (18.2%)
Industry Total	259,558		188,608		196,134	

Note: Percentages may not add due to rounding.  
Companies affiliated to the licensee are included in licensee figures in 2010-11.  
IDNO totals for 2009-10 and 2010-11 include connections to out-of-area networks operated by SSE.

6.7. Figure 6.1 shows that the trends of increasing competition in electricity connections have accelerated in 2010-11. Overall, market penetration of third parties (IDNOs and ICPs) in the electricity connections market has risen to 23 per cent in 2010-11, compared to 13 per cent in 2009-10 and 10 per cent in 2008-09.<sup>44</sup>

6.8. The following figures show competition in connections based on the volume of end connections rather than overall market value. These figures are therefore strongly influenced by the high volume of small-scale LV connections which are less likely to be attractive to competing third parties.

**Figure 6.1 DPCR5 trends in Great Britain in the provision of new and modified metered electricity connections**

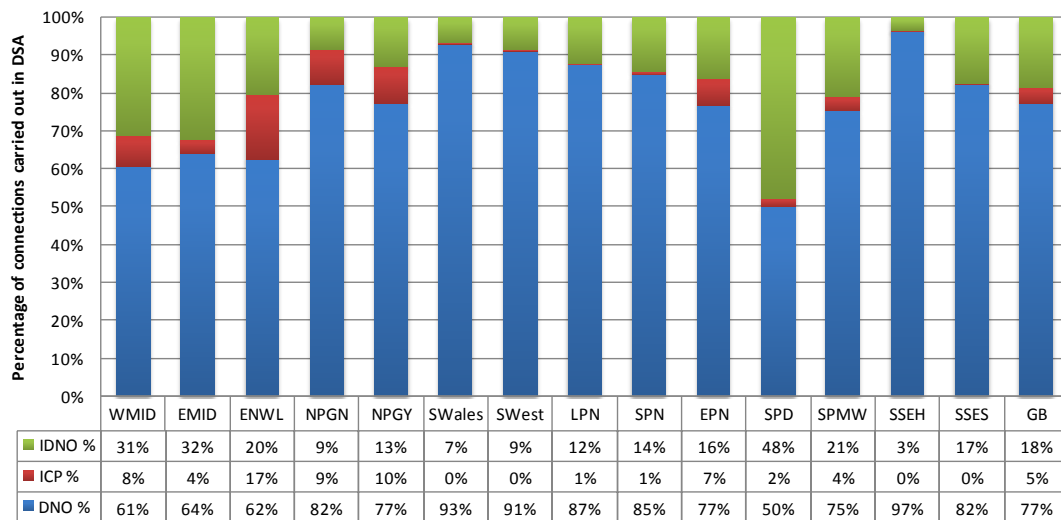
6.9. The majority of third party market penetration in connections is due to an increase in connections by IDNOs. Figure 6.1 shows that over the past six years,

<sup>44</sup> The 2009-10 IDNO totals include 1,321 out-of-area connections by Scottish & Southern Energy.

a progressively higher percentage of metered connections were carried out by IDNOs. However, there has also been an increase in the number of connections carried out by independent connection providers to both DNO and IDNO networks from four per cent in 2009-10 to eight per cent in 2010-11.

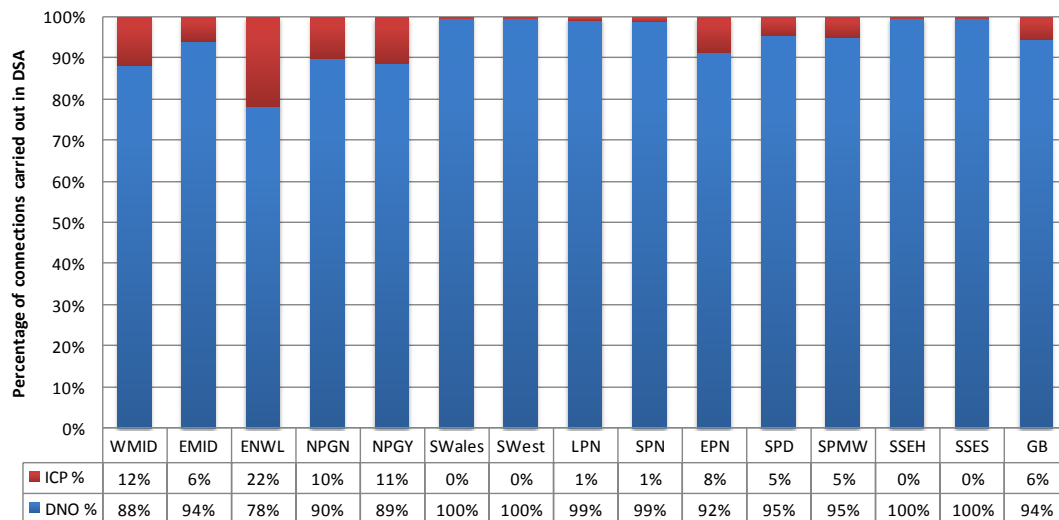
6.10. Figure 6.2 shows the breakdown by connection provider of connections made in each distribution service area (DSA). This reflects the level of connections market share held by each type of provider in each DSA.

**Figure 6.2 Connections by distribution service area (to both DNO and IDNO networks)**



6.11. Figure 6.2 shows that SPD has the lowest share of connections made in its DSA with 50 per cent of connections made by an IDNO or ICP. SSEH has the highest share of connections made in its DSA with 3 per cent of connections were made by an IDNO or ICP.

6.12. Figure 6.3 shows market share for connections made to the DNOs’ networks only. This means that connections to IDNO networks are not included. While Figure 6.2 shows competition in connections by DSA, the figure below shows competition in connections to the DNO’s network, ie where DNOs are the incumbent provider.

**Figure 6.3 Connections to DNO networks only**

Note: The percentage values are rounded to whole numbers.

6.13. Figure 6.3 shows that ENWL has the lowest share of connections made to its network with 22 per cent of connections carried out by an ICP. SWales has the highest share of connections made to its network with 0.02 per cent of connections carried out by an ICP.

### Provision of connection offer quotations

6.14. SLC 12 requires each DNO to provide offers for connection as soon as reasonably practicable, and in any event within three months of the receipt of an application. This is provided that the application contains all such information as may reasonably be required by the DNO for the purpose of formulating an offer.

6.15. An SLC15 connection offer any connection quotation provided under standard condition 15 of the Electricity Distribution Licence, which applies to the provision of non-contestable connection services<sup>45</sup> to third-party connection providers.

6.16. Table 6.2 shows the average and maximum timescales for each DNO to provide a connection offer.

<sup>45</sup> This is work that can only be carried out by the host DNO licence holder.

**Table 6.2 Average and maximum timescales to provide quotations**

DNO	Quotations provided for SLC15 connection offers made in 2010-11		Quotations provided for SLC12 connection offers, excluding SLC15, made in 2010-11	
	Average number of working days taken	Maximum number of working days taken	Average number of working days taken	Maximum number of working days taken
WMID	16	49	7	65
EMID	16	51	8	65
ENWL	9	55	8	63
NPGN	12	63	11	65
NPGY	12	49	10	65
SWales	4	14	1	63
SWest	15	65	3	65
LPN	14	65	10	64
SPN	14	63	11	65
EPN	14	65	8	64
SPD	12	55	10	65
SPMW	15	64	5	65
SSEH	12	50	7	65
SSES	15	50	2	64

6.17. In 2010-11, all DNOs provided connection offers within 65 days of receipt of a complete application. The average numbers of working days taken to provide connection offers show some variation between DNOs. Note that these figures reflect both performance and the typical mix of connections work in each DNO area. For example, applications for single points of connection make up a larger portion of requests for connection in some DNO areas than in others and these single services are often faster to turnaround than connection requests requiring more complex design work.

6.18. Table 6.3 shows the percentage of quotations accepted by connecting customers for connections quotations issued in 2010-11 (referred to as acceptance rate within the table). The acceptance rates across Great Britain are shown in Table 6.3 along with the minimum and maximum acceptance rates that any DNO has reported.

6.19. The acceptance rates are shown against the four connection types as detailed below. SLC15 connection offers are defined in paragraph 6.15. Distribution generation connection offer refers to any connection quotation provided that allows the potential export of electricity from the customer's premises into the DNO network. Metered connection offer refers to any quotation providing a metered supply from the DNO network without allowing for any export. This category would include the majority of domestic customer connections. Finally, unmetered connection offer refers to any connection quotation relating to an unmetered electricity supply. The times are shown in working days to reflect reporting practices under the guaranteed standards.

**Table 6.3 Quotations issued in 2010-11 and number of these which were accepted**

	Connection offers issued	Number of these offers accepted	Min acceptance rate for any DNO	Max acceptance rate for any DNO	GB acceptance rate
Total number of quotations provided for SLC15 connection offers made in 2010-11	8,687	1,308	9%	31%	15%
Number of quotations provided for distributed generation connection offers made in 2010-11	4,636	956	5%	76%	21%
Number of quotations provided for metered connection offers made in 2010-11	94,123	52,819	45%	63%	56%
Number of quotations provided for unmetered connection offers made in 2010-11*	9,301	4,028	1%	86%	43%
All GB connections	116,747	59,111	0%	0%	51%

Note: \* Unmetered connections figures were not available for SPN.

## Connections Standards of Performance

6.20. Obligations to connect new customers are set out in the Electricity Act 1989 and in the Standard Licence Conditions (SLC) 12, 15 and 19<sup>46</sup>. SLC 12 requires each DNO to provide offers for connection as soon as reasonably practicable and, in any event, within three months. SLC 15 relates to the timeliness of the provision of non-contestable connection services<sup>47</sup> to third party providers. SLC 19 prohibits the discrimination between classes of consumers.

6.21. Each of these obligations is a minimum standard of acceptable performance and DNOs' performance on connections must be seen in this light. We are concerned about the number of reports we hear about delays or poor customer service in the field of connections, despite the positive snapshot shown below.

6.22. On 1 October 2010 the Electricity (Connection Standards of Performance) Regulations<sup>48</sup> and Distributed Generation (DG) Standards Direction<sup>49</sup> took effect requiring specific connection services to be provided within specified timescales.

<sup>46</sup> The Standard Conditions of the Electricity Distribution Licence are available on our website at: [http://epr.ofgem.gov.uk/document\\_fetch.php?documentid=15992](http://epr.ofgem.gov.uk/document_fetch.php?documentid=15992)

<sup>47</sup> This is work that can only be carried out by the host DNO licence holder.

<sup>48</sup> Electricity (Connections Standards of Performance) Regulations 2010. Statutory Instrument 2088.

<sup>49</sup> Direction under paragraph 15a.16 Of Standard Condition 15a (Connection Policy And Connection Performance) of the Electricity Distribution Licence



Standard condition 15A.14 of the Electricity Distribution Licence requires these timescales to be met in 90% of cases against the aggregated standards below:

- Metered standards of performance relating to budget estimates and quotations (in total)
- All other metered standards of performance (in total)
- All unmetered standards of performance (in total)

6.23. Performance against these Standards of Performance is shown in Table 6.4. All DNOs passed the 90% licence requirement.

**Table 6.4 Electricity Connections and DG Standards of Performance**

DNO	Metered standards of performance relating to budget estimates and quotations		All other metered standards of performance		All unmetered standards of performance	
	Q3	Q4	Q3	Q4	Q3	Q4
WMID	99.93%	99.87%	99.31%	99.81%	98.47%	99.43%
EMID	100.00%	99.92%	99.77%	99.48%	99.56%	99.52%
ENWL	99.54%	99.82%	100.00%	100.00%	98.62%	98.47%
NPGN	99.75%	99.66%	99.73%	100.00%	99.41%	99.80%
NPGY	99.82%	99.87%	99.84%	99.93%	99.89%	99.96%
SWales	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
SWest	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
LPN	100.00%	99.94%	99.82%	99.83%	99.63%	99.95%
SPN	100.00%	99.88%	98.78%	99.77%	99.69%	100.00%
EPN	100.00%	99.74%	99.68%	99.80%	99.73%	100.00%
SPD	99.45%	98.80%	96.21%	96.14%	90.78%	90.66%
SPMW	100.00%	99.92%	100.00%	99.72%	98.92%	99.56%
SSEH	99.95%	100.00%	100.00%	100.00%	100.00%	100.00%
SSSES	99.98%	100.00%	99.97%	100.00%	98.38%	98.78%

## Distributed generation

6.24. Traditionally electricity has been produced by large power stations which connect to the high voltage transmission network. More recently there has been a rise in Distributed Generation (DG), which is where smaller-scale electrical power generators connect to the lower voltage distribution network.

6.25. There has been continued growth in demand for connection to the distribution networks to support DG. Across all DNOs, 14,351 new DG projects were connected to the DNO networks in 2010-11.

6.26. At the start of the current price control, Ofgem stepped up DG related incentives and obligations, with new guaranteed standards, a requirement for DNOs to produce a DG Connections Guide and to have in place a DG information strategy. More generally the broad measure of customer satisfaction, which will come into effect in 2012-13, is intended to ensure DNOs remain focussed on customer service and engage effectively with DG and all other stakeholder and

customer groups. It is important that we monitor the success of the above measures in providing DG customers with the information and service levels they require.

### **Distributed generation fora<sup>50</sup>**

6.27. In May 2011 we issued an open letter asking for industry views on the experience of getting DG connected to the distribution network. After receiving responses to this open letter, we held a series of fora to explore the issues raised, with stakeholders. The fora were held in London, Glasgow and Cardiff in September 2011. These were designed to allow the DNOs and Ofgem to understand the issues faced by DG customers over the previous years and to promote improved communication between the DG community and DNOs. An open letter has been published on the outcomes of the DG fora.

6.28. The events were extremely well attended, with over 150 DG stakeholders represented. The following key themes were identified by stakeholders:

- Customers require better and more timely information from DNOs
- There needs to be greater transparency of cost information
- There is confusion over the DNOs adopting different technical standards and different approaches to the application process
- DG stakeholders would like to see a quicker and clearer connections process and a reduction in the overall costs of connection
- Stakeholders want more engagement with the DNOs

6.29. All of the DNOs were represented at the events and they have heard for themselves the views of customers on the above. We want to be sure that the issues above are addressed and that DNOs put measures in place to improve how they meet the needs of this important customer group. We are following this up through a second round of DG fora. Although the DG fora were held after the 2010-11 reporting year, we consider this feedback to be relevant to that period.

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<sup>50</sup> An overview of the Distributed Generation (DG) Forum 2011 is available on our website at: <http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=244&refer=Networks/ElecDist/Policy/DiStGen>

## 7. Environment

This chapter sets out environmental performance measures and incentive schemes in 2010-11 including the Low Carbon Networks Fund; the Innovation Funding Incentive; the business carbon footprint; the network loss incentive; and oil leakage monitoring.

7.1. Several aspects of the electricity distribution network operators' (DNOs') environmental performance are incentivised or monitored in under the current price control arrangements. These arrangements include: the Low Carbon Networks (LCN) Fund which provides financial awards for innovative projects to reduce the DNOs' carbon footprints; the Innovation Funding Incentive (IFI) for research and development work; and an incentive scheme to minimize network losses.

7.2. In addition, we monitor DNO performance on oil leakage. We are also looking to monitor sulphur hexafluoride losses going forward<sup>51</sup> and will monitor improvements in Business Carbon Footprint (BCF) over the five year price control period.

### Low Carbon Networks Fund

7.3. DNOs are entering a period of significant change. The challenges presented by the transition to a low carbon economy will directly impact their networks. The widespread connection of distributed generation (DG), the electrification of heat and transport and the introduction of smart meters will require new approaches to the design, construction and operation of these networks. To meet these challenges in a timely and cost effective way DNOs will need to innovate in the way they design, build and operate their networks.

7.4. As part of the current price control, we created the £500 million LCN Fund to encourage the DNOs to try out new technologies, operating practices and commercial arrangements which are required to meet these challenges.<sup>52</sup>

7.5. The first tier, up to £16 million a year, is spread across all DNOs to spend against set criteria. This funding can be used for small scale projects or to put in place the people, resources and processes to progress larger innovative projects. The second tier, up to £64 million a year, is provided to a small number of significant scale projects that win an annual competition. Finally, a discretionary reward totalling up to £100 million over the five year period can be awarded by Ofgem for successful project completion and exceptional projects.

7.6. In 2010 we ran the first annual competition for second tier funding. Four projects were selected and awarded funding of a combined value of £63.6m, as shown in Table 7.1. The projects and individual awards are described below.

<sup>51</sup> Sulphur Hexafluoride (SF<sub>6</sub>) is a greenhouse gas used by DNOs as an insulator in electrical switchgear.

<sup>52</sup> Further information about the LCN Fund is on the Ofgem website at: <http://www.ofgem.gov.uk/Networks/ElecDist/lcnf/Pages/lcnf.aspx>

**Table 7.1 Low Carbon Networks Fund tier 2 awards**

DNO	Project title	Funding awarded £m
NPGN	Customer-led Network Revolution	27.6
LPN	Low Carbon London – A Learning Journey	24.9
EMID	Low Carbon Hub	3.1
SWales	LV Network Templates for a Low-carbon Future	8
Total		63.6

7.7. Customer-led Network Revolution explores how customers and networks can work better together through the use of smart meters, new tariffs, improved network infrastructure, better communication and improved use of data. This work is in partnership with British Gas and Durham University amongst others.

7.8. Low Carbon London investigates how a network to serve a low-carbon city (London) might work. This involves trialling new tariffs and smart meters, and improving understanding of the impact of low carbon technologies on the networks. This project leverages London's low carbon initiatives and is in partnership with Logica and Imperial College amongst others.

7.9. Low Carbon Hub develops new ways to connect renewable generation (mainly wind) to distribution networks. The project explores ways to maximise the capacity of renewable generation in the area and trials new ways of dynamically controlling voltage on the network as well as new commercial arrangements.

7.10. LV Network Templates for a Low-carbon Future investigates the impact of low carbon technologies on the low voltage electricity network. The project will create generic network models to assist DNOs in efficiently planning and operating networks. The project leverages Welsh Assembly Government and RWE npower initiatives.

7.11. These projects can provide learning which will be beneficial across networks. We require second tier projects to report on progress every six months. We are monitoring these reports to understand the learning which is emerging and to ensure that it is communicated across the industry.

7.12. A second competition for second tier funding took place in 2011 which allocated over £56 million to six winning projects. We have also recently completed a review of the fund. We consider that the LCN Fund has worked well to date. We are pleased to note that respondents to the review supported our view and emphasised the role the LCN Fund has played in stimulating innovation. Some refinements to the fund will be carried out as detailed in the review letter.<sup>53</sup>

## **Innovation Funding Incentive (IFI)**

7.13. The IFI was introduced during DPCR4 in response to declining levels of investment in research and development by DNOs since the 1990s. The IFI has

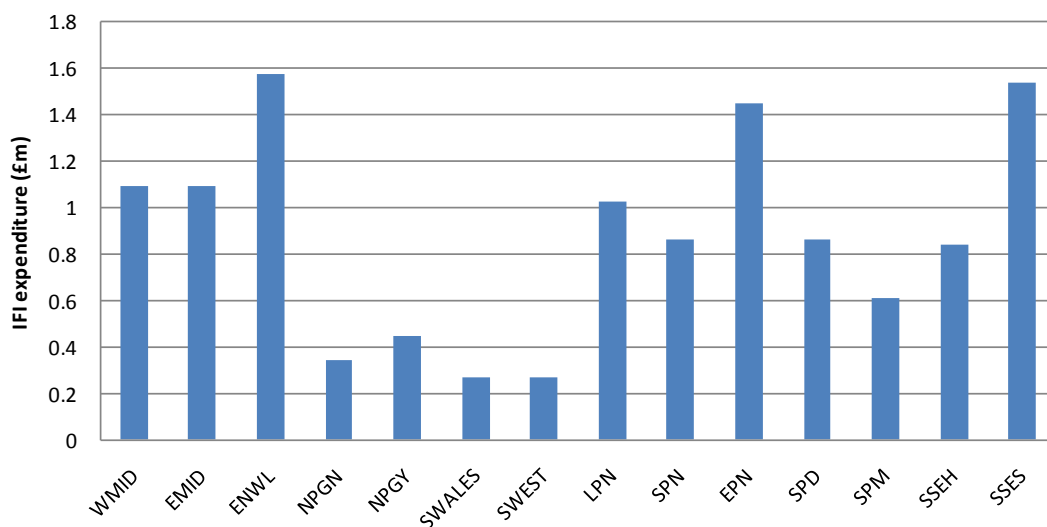
<sup>53</sup> Decision on the Low Carbon Networks Fund Two Year Review, 22 February 2010. This letter is available on our website at:  
<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=115&refer=Networks/ElecDist/lcnf>

been retained for DPCR5 to give DNOs the confidence to build their research and development portfolios. During DPCR5 it will operate alongside the LCNF, funding technical research and development that is not specifically focussed on low carbon initiatives and therefore funded by the LCNF.

7.14. Eligible IFI projects are defined as those designed to enhance the technical development of distribution networks and can include asset management from design through to construction, commissioning, operation, maintenance and decommissioning. DNOs are allowed to pass through to customers 80% of the cost of eligible IFI projects up to the IFI limit, which remains at 0.5% of DNO combined (generation and demand) network revenue annually. The funding from the IFI is provided on a 'use it or lose it' basis each year. However, DNOs are allowed to carry forward up to 50% of their maximum allowable IFI for a given year. Up to 15% of the total IFI funding received each year can be used to fund internal company expenditure (as opposed to commissioning third parties to undertake work), unless otherwise agreed with Ofgem.

7.15. The key high-level measure of IFI tracked by Ofgem is actual spend by DNOs. For 2011 total net costs under the IFI were £12.28m, up from £10.67m in 2010. A breakdown of net costs under the IFI by DNO is shown in Figure 7.1.

**Figure 7.1 Innovation Funding Incentive - DNO Net Costs for 2010-11**



## Business Carbon Footprint (BCF) reporting in DPCR5

7.16. DNOs are required to report the carbon emissions related to their business operations according to the categories of building energy usage, operational and business transport, fugitive emissions<sup>54</sup>, fuel combustion and distribution network losses. They must report on all Scope 1 and Scope 2 emissions<sup>55</sup> on an operational control basis, ie where they have full authority to introduce and

<sup>54</sup> Fugitive emissions refer to pollutants released into the air from leaks in equipment

<sup>55</sup> For more detail refer to the GHG Protocol Guidance

<http://www.ghgprotocol.org/standards/corporate-standard>

implement operating policy. They must also report on a subset of Scope 3 emissions, ie business travel and external contractors.

7.17. All DNOs are required to report these figures on an annual basis, and we will publish a league table of the annual change in business carbon emissions (BCF) measured against a baseline year of 2010-11. The league table will exclude BCF from electricity losses because there is a separate price control incentive associated with electricity losses. The first league table will be published based on the 2011-12 data submitted by DNOs in the third quarter of 2012.

## Network loss incentive

7.18. The Distribution Losses Incentive Mechanism incentivises DNOs to reduce distribution losses on their networks. Distribution losses are calculated as the difference between electricity put into the distribution network and electricity taken out, with adjustments made for distributed generation. The Authority<sup>56</sup> sets an allowed loss percentage (ie an annual target) for each DNO at the beginning of the price control period and DNOs receive a reward or penalty based on their performance against the target.

7.19. It is not possible to provide details of DNOs losses performance in 2010-11 (as is the intention of this Annual Report), because of a two year reporting lag that was introduced in the Final Proposals<sup>57</sup> for the fifth price control (DPCR5). The policy framework for DPCR5 introduced a number of measures aimed at increasing consistency and accuracy around losses. This included a common reporting methodology based on settlement data and a requirement to report losses performance with a two year lag to reduce volatility arising from settlement corrections. This means that losses for 2010-11 will be reported by the DNOs on or by 31 July 2013.<sup>58</sup>

7.20. Ongoing work on the Losses Incentive Mechanism includes resolving the process by which the DPCR4 losses mechanism will be 'closed-out' and new targets set for DPCR5 (more detail is available in the DPCR5 Final Proposals). More recently, Ofgem published a decision document on 9 March 2012 to address issues with abnormal levels of data-cleansing that had been legitimately undertaken by suppliers, but which affected 2009-10 loss performance of some DNOs.

## Oil top ups

7.21. DNOs use oil-based fluids as electrical insulators on certain cables. Ofgem collects data on the leakage of such fluids from each network because leakage can be detrimental to ecosystems. Each DNO reports to Ofgem on the total volume of oil used to top up cables as shown in Table 7.2.

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<sup>56</sup> 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. Further information on the Authority is available in Appendix 4.

<sup>57</sup> This document is available on our website at:

<http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/DPCR5/Pages/DPCR5>

<sup>58</sup> Further information may be found on our website at:

[http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/DPCR5/Documents1/Consultation\\_on\\_methodology\\_to\\_address\\_losses\\_settlement\\_data.pdf](http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/DPCR5/Documents1/Consultation_on_methodology_to_address_losses_settlement_data.pdf)

7.22. The data for 2010-11 should be treated with caution as we have had to make a number of improvements to the definitions and guidance around the reporting of this data. In addition the data below provides no indication of the extent of network or fluid-filled equipment which each DNO operates. Better quality data should be available from next year onwards.

**Table 7.2 Fluid used to top up cables**

DNO	Oil used to top up cables minus oil recovered (L)
WMID	27,126
EMID	24,056
ENWL	34,770
NPGN	18,010
NPGY	31,250
SWales	730
SWest	1,688
LPN	99,113
SPN	51,556
EPN	63,118
SPD	190
SPMW	4,722
SSEH	833
SSES	29,905
GB total	387,067

7.23. In future, we are looking to have a comparable measure of DNO performance and to normalise fluid top ups against the extent of fluid filled cables the DNOs operate. In future, DNOs will report on the volume of fluid in service in cables which will enable us to determine a percentage of fluid lost.

## Distributed generation

7.24. In total 789.4MW of DG were connected in 2010-11, down from 1206.3 reported in 2009-10. DNOs reported expenditure of £26.62m in providing DG connections in 2010-11, up from £23.09m in 2009-10.

7.25. The number of megawatts of DG installed on each DNO's network in 2010-11 is shown in Table 7.3. These figures exclude the capacity of existing DG installed on the DNO networks prior to the 2010-11 reporting year.

**Table 7.3 MW Distributed generation installed in 2010-11**

DNO	MW installed on network in 2010-11
WMID	12
EMID	61
ENWL	37
NPGN	42
NPGY	63
SWales	32
SWest	32
LPN	5
SPN	309
EPN	34
SPD	53
SPMW	12
SSEH	79
SSES	17

7.26. Table 7.4 outlines the DG technology installed on the DNOs' networks for all DNOs in Great Britain in 2010-11. This does not show the breakdown of generation capacity contributed by each type of DG technology installed in 2010-11 but outlines the total number of individual connection projects carried out by the DNOs for each technology type.

**Table 7.4 Distributed generation composition by technology**

Technology type	No. of projects	
	2009-10	2010-11
Total	2347	14351
Onshore wind	296	204
Offshore wind	4	0
Tidal stream & wave power	1	0
Biomass & energy crops (not CHP)	5	4
Hydro	47	16
Landfill gas, sewage gas, biogas (not CHP)	84	85
Waste incineration (not CHP)	3	4
Photovoltaic	1783	13964
Micro CHP (domestic)	21	11
Mini CHP (<1MW)	64	47
Small CHP (>=1MW, <5MW)	8	12
Medium CHP (>=5MW, <50MW)	2	0
Large CHP (>=50MW)	0	0
Other generation	29	4



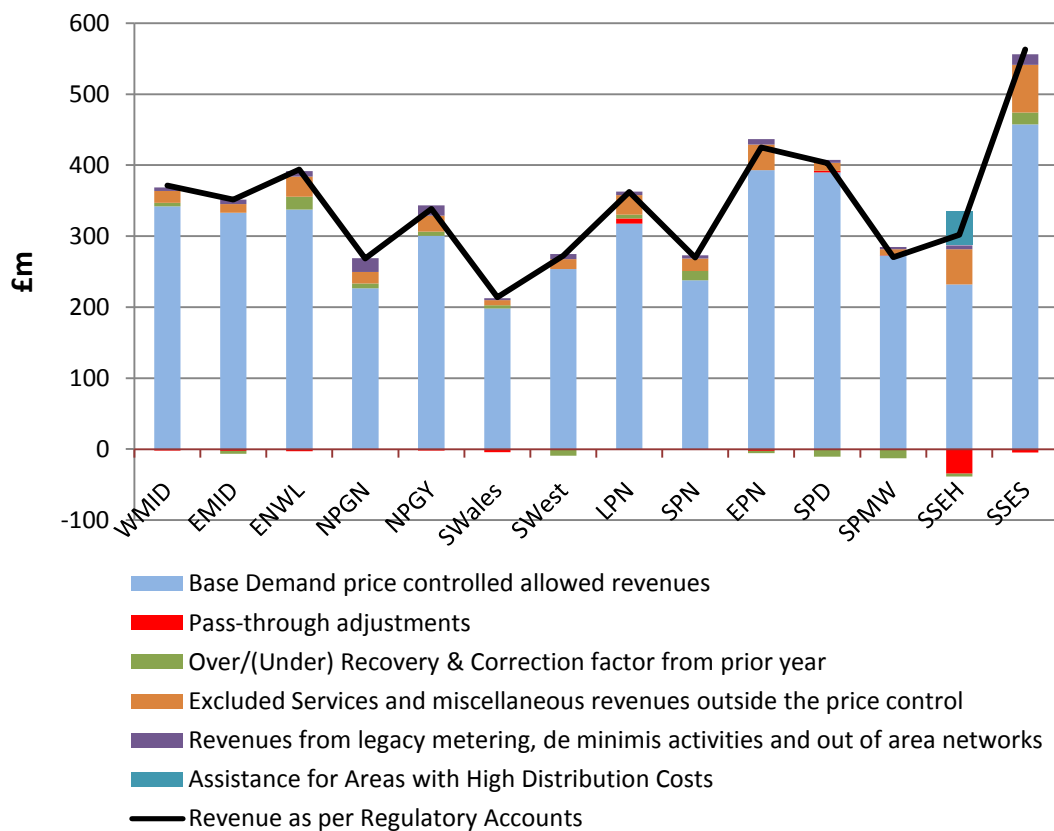
## 8. Financial issues

This chapter sets out the DNOs' performance against their allowances for total revenue; return on regulatory equity; regulatory asset value; pension costs; and current taxation.

### Revenue recovered

8.1. Figure 8.1 shows each licensee's revenue as reported in their regulatory accounts (black line). Base demand price controlled allowed revenues are the amounts set out in the DPCR5 Final Proposals document for the distribution business. Excluded services are reported net of customer contributions (where they are not treated as revenue in the accounts) and includes the amortisation of contributions in accordance with IFRS<sup>59</sup>; they also include any miscellaneous revenues. Pass-through adjustments include Ofgem licence fees and network rates, which in 2010-11 includes the adjustment for the difference between the allowance and actual cost. The over/(under) recovery and correction factor includes the allowed under-recovery of base demand revenues for the previous year (or a reduction in an over-recovery). The latter also allow for the interest adjustment for the time value of money on those over/under-recoveries.

**Figure 8.1 Revenue per regulatory accounts**



<sup>59</sup> International Financial Reporting Standards

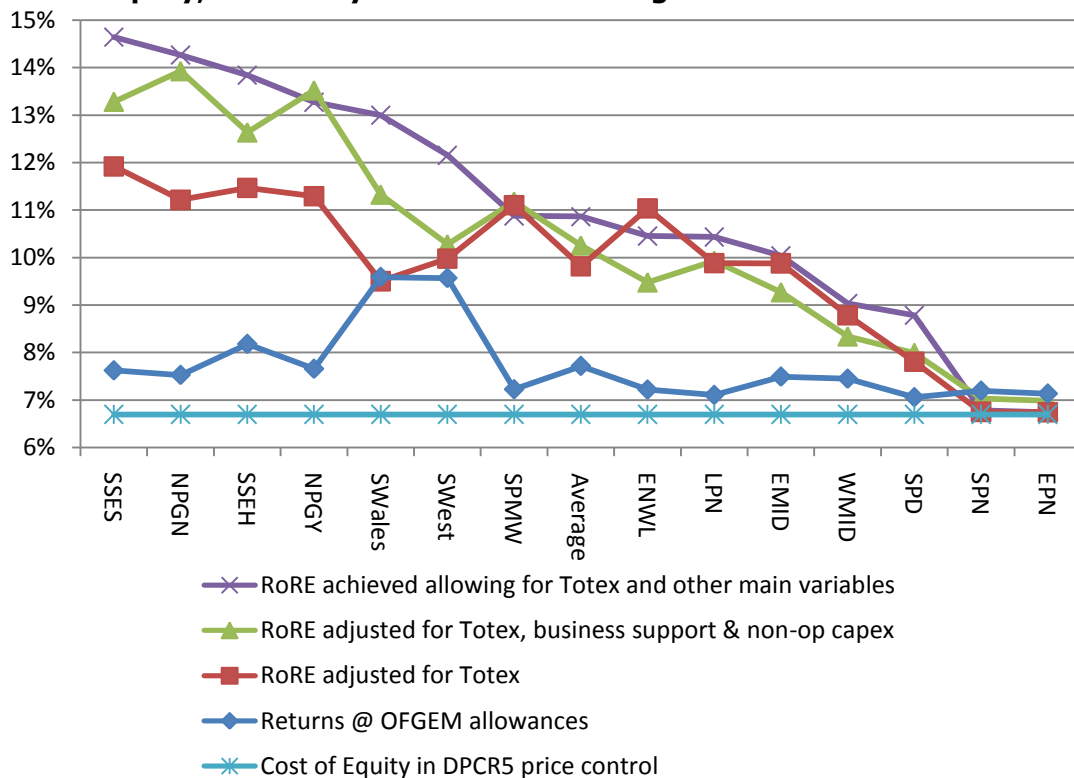
## Return on regulatory equity (RoRE) <sup>60</sup>

8.2. As outlined in the DPCR5 Final Proposals, we have developed the RoRE and have monitored DNO performance for the first year of the price control. This shows that, in practice, DNO returns have varied significantly from the DPCR5 assumed return on equity, with the majority of DNOs earning in excess of the assumed return, some substantially. However, as this is the first year of the price control, the results are likely to have been impacted by deferred capital expenditure, which would be expected to reverse in later years in order to deliver outputs.

8.3. As well as each DNO's performance in controlling totex and business support costs, outturn RoRE has been driven by performance under the quality of service incentive, and deviations in real interest rates from those assumed when we set the price control.

8.4. The RoRE achieved in the first year of DPCR5 is set out in Figure 8.2; we note that the results presented are indicative only. These returns do not reflect any additional returns DNOs may have earned from distributed generation use of system charging, excluded services, legacy meter asset provision, out of area networks or de minimis business.

**Figure 8.2 Return on Regulated Equity (RoRE) achieved versus allowed cost of equity, ranked by RoRE in descending order**



<sup>60</sup> The concept of Return on Regulatory Equity (RoRE) is discussed in Chapter 4 of DPCR5 Final Proposals. December 2009. 145/09, This document is available on our website at : <http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=346&refer=Networks/ElecDist/PriceControls/DPCR5>

8.5. These returns are only indicative for 2010-11 and may be influenced by deferment of capital expenditure which would reverse in later years and give a more accurate representation of returns over the price control period. Whilst a DNO may appear to benefit financially in the short term from a network investment underspend, the DPCR5 secondary network deliverables mechanism penalises DNOs which do not deliver on their outputs. As explained in paragraph 2.30, companies face a penalty for not delivering on outputs which is 2.5% higher than any gains from underspending on network investment.

### **Caveats**

8.6. We have developed our RoRE approach as a means to gauge company performance against the Final Determination on a consistent basis. There is no direct read across to returns that companies report in their accounts since the methodology for RoRE recognises some gains that companies will only see over time.

8.7. The results are based on our modelled approach to notional gearing. The calculation of each company's specific cost of debt is problematic given different funding structures, instruments and hedging strategies. We have therefore used the iBoxx trailing average as a best view of actual rates which we compare to our notional funding assumption. It should be noted that the actual cost of debt for DNOs will be significantly different to this, and therefore increased or decreased return will vary per company.

8.8. We do not adjust for differences in pension expenditure.

8.9. The quality of service difference is calculated using the incentive earned during 2010-11 which relates to 2008-09 performance.

### **Pensions**

8.10. In DPCR5, there is provision for a true up of efficient Pension Protection Fund (PPF) levies and an asymmetric true up of ongoing employer pension contributions (including scheme administration costs). Overspend is funded 80 per cent and underspend clawed back at 50 per cent; this is to recognise the amount of influence licensees were perceived to have over pension costs at DPCR5.

8.11. These amounts (reported in Tables 8.1 and 8.2) for true up will be made in RIIO-ED1 and are subject to review for efficiency in accordance with our published methodologies. The fast money<sup>61</sup> amount will be spread evenly on a NPV neutral basis over 8 years; and the slow money<sup>62</sup> will be adjusted in RAV.

8.12. The adjustment to revenue will comprise the fast money amount and that for regulatory depreciation on the RAV additions and return. The adjustments will be made net of tax at the applicable rate of corporation tax of the year to avoid double-counting the tax effect on revenues.

<sup>61</sup> Fast money is the revenue that is matched to the year of expenditure.

<sup>62</sup> Slow money is where costs are added to the RAV and revenues allow recovery of the cost over time (currently 20 years) together with the cost of financing this expenditure in the interim.

**Table 8.1 Ongoing pension costs**

£m (2010-11)	Fast money			Slow Money			Total fast & slow money		
	Actual spend	Allowance	True up amount subject to sharing	Actual spend	Allowance	True up amount subject to sharing	Actual spend	Allowance	True up amount subject to sharing
WMID	2.8	3.0	(0.2)	8.5	9.7	(1.2)	11.3	12.7	(1.4)
EMID	2.4	2.6	(0.1)	6.7	7.5	(0.8)	9.1	10.1	(1.0)
ENWL	3.1	7.1	(3.9)	8.9	8.1	0.8	12.1	15.2	(3.2)
NPGN	1.7	2.1	(0.4)	4.0	5.4	(1.4)	5.7	7.5	(1.8)
NPGY	2.3	2.4	(0.1)	5.7	6.9	(1.3)	7.9	9.3	(1.4)
SWales	3.0	1.5	1.4	12.7	4.5	8.1	15.6	6.0	9.6
SWest	4.5	1.9	2.6	19.3	6.7	12.6	23.8	8.6	15.2
LPN	2.0	1.7	0.3	5.2	5.8	(0.5)	7.2	7.5	(0.3)
SPN	2.1	2.0	0.1	6.3	6.5	(0.2)	8.4	8.5	(0.1)
EPN	3.1	3.0	0.1	9.0	9.6	(0.6)	12.1	12.7	(0.5)
SPD	2.6	2.0	0.6	6.1	7.4	(1.3)	8.7	9.5	(0.8)
SPMW	2.5	2.0	0.6	6.7	4.3	2.4	9.2	6.3	2.9
SSEH	2.0	2.0	0.1	5.1	4.3	0.8	7.1	6.3	0.8
SSES	1.9	2.3	(0.4)	6.3	6.0	0.2	8.2	8.4	(0.2)
<b>GB total</b>	<b>36.1</b>	<b>35.6</b>	<b>0.5</b>	<b>110.4</b>	<b>92.9</b>	<b>17.4</b>	<b>146.5</b>	<b>128.5</b>	<b>18.0</b>

**Table 8.2 Pension Protection Fund levies**

£m (2010-11)	Fast money			Slow Money			Total fast & slow money		
	Actual spend	Allowance	True up amount subject to sharing	Actual spend	Allowance	True up amount subject to sharing	Actual spend	Allowance	True up amount subject to sharing
WMID	0.1	0.0	0.1	0.3	0.1	0.2	0.5	0.2	0.3
EMID	0.1	0.1	0.1	0.4	0.1	0.2	0.5	0.2	0.3
ENWL	0.1	0.3	(0.2)	0.3	0.2	0.1	0.4	0.4	(0.1)
NPGN	0.0	0.1	(0.0)	0.1	0.1	(0.0)	0.1	0.2	(0.1)
NPGY	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.1	0.1
SWales	0.0	0.1	(0.1)	0.1	0.3	(0.1)	0.2	0.4	(0.2)
SWest	0.0	0.1	(0.1)	0.2	0.3	(0.2)	0.2	0.4	(0.2)
LPN	0.0	0.0	0.0	0.1	0.1	(0.0)	0.2	0.2	(0.0)
SPN	0.0	0.1	(0.0)	0.1	0.2	(0.1)	0.2	0.3	(0.1)
EPN	0.1	0.0	0.0	0.2	0.1	0.1	0.3	0.1	0.2
SPD	0.1	0.1	0.1	0.3	0.2	0.1	0.4	0.2	0.1
SPMW	0.1	0.0	0.1	0.3	0.1	0.2	0.4	0.1	0.3
SSEH	0.0	0.0	(0.0)	0.1	0.1	0.0	0.1	0.1	0.0
SSES	0.9	0.1	0.7	0.0	0.3	(0.3)	0.9	0.5	0.4
<b>GB total</b>	<b>1.8</b>	<b>1.0</b>	<b>0.7</b>	<b>2.5</b>	<b>2.3</b>	<b>0.2</b>	<b>4.3</b>	<b>3.3</b>	<b>1.0</b>

8.13. Outturn pension deficit costs reported in Table 8.3 show, for most DNOs, a significant overspend against allowances. The main reasons are that some have made additional lump sum payments. These were E.ON to the Central Networks scheme prior to sale to PPL, EDF Energy prior to sale of their three networks to UKPN; both as part of the respective sectionalisation of the schemes of which

they were formally part. WPD S Wales and S West made payments in advance in March 2010, which we agreed would be treated as 2010-11 costs. SP Manweb (SPMW) has made two year's agreed deficit funding payments in 2010-11; for the purpose of truing up pensions costs we will treat the second payment as being made in 2011-12. In both cases this is to ensure that payments match the year in which they should have been incurred, as will the true-up. For SSE Southern the underspend arises as the allowance is based on the forecast deficit at March 2010 and the actual funding is made in accordance with the previous March 2007 deficit funding plan. Similarly, for SPD the deficit funding payment is based on the 2009 valuation and not the March 2010 forecast deficit used to set allowances.

**Table 8.3 Pension deficit costs**

£m (2010-11)	Actual spend	Allowance	Over/(under) spend
WMID	39.4	17.9	21.5
EMID	36.6	16.6	20.0
ENWL	15.9	16.0	(0.1)
NPGN	21.0	16.8	4.2
NPGY	8.1	8.1	0.0
SWales	23.7	12.2	11.5
SWest	41.5	21.7	19.8
LPN	85.7	27.0	58.7
SPN	72.5	22.2	50.3
EPN	23.6	7.8	15.8
SPD	6.7	8.2	(1.5)
SPMW	37.5	15.0	22.5
SSEH	16.8	12.8	4.0
SSES	25.0	31.8	(6.7)
GB total	454.0	234.1	219.9

8.14. The annual pension deficit allowances are the funding of the forecast deficit at 31 March 2010, based on 30 September 2010 updated valuations, spread over 15 years in accordance with our methodologies. In DPCR5, we introduced our new methodology wherein the opening forecast deficit would be revised at ED1 and trued up based on the deficits shown by valuations as at 31 March 2010 (the cut-off date). These valuations would be subject to an efficiency review and, subject to the outcome of that review, adjustment. That review is currently underway and the conclusions will be reported separately. In addition, the deficit at the cut-off date is split into that related to all members arising at the cut-off date (the established deficit) and, for active members, that arising after the cut-off date. The actual spend shown in Table 8.3 relates to the pre cut-off date deficit.

## Regulatory asset value

**Table 8.4 RAV changes in the year**

£m (2010-11)	Opening RAV at 1 April 2010	Additions	Depreciation	Closing RAV at 31 March 2011	Closing RAV at 31 March 2011 (year end prices)	RAV additions more/ (less) than allowance
	£m	£m	£m	£m	£m	£m
WMID	1,507.7	171.3	(128.3)	1,550.7	1,598.5	(15.9)
EMID	1,441.0	157.6	(126.2)	1,472.4	1,517.7	(29.4)
ENWL	1,302.5	121.7	(117.7)	1,306.5	1,346.8	(48.9)
NPGN	892.5	85.1	(78.5)	899.0	926.7	(31.8)
NPGY	1,153.4	121.8	(100.5)	1,174.7	1,210.9	(38.8)
SWales	726.2	87.3	(73.2)	740.3	763.1	6.6
SWest	992.6	122.0	(89.1)	1,025.5	1,057.1	5.8
LPN	1,276.0	131.4	(113.6)	1,293.8	1,333.7	(35.4)
SPN	1,107.1	168.2	(90.3)	1,185.0	1,221.5	0.6
EPN	1,805.6	252.2	(148.7)	1,909.1	1,967.9	1.1
SPD	1,379.4	109.6	(114.8)	1,374.2	1,416.5	(17.0)
SPMW	1,161.3	121.2	(98.6)	1,184.0	1,220.4	(48.9)
SSEH	903.7	64.2	(75.9)	891.9	919.4	(23.8)
SSES	1,790.7	155.8	(166.6)	1,780.0	1,834.8	(63.8)
Total	17,439.8	1,869.4	(1,522.0)	17,787.3	18,335.1	(339.6)

8.15. The variance in actual additions compared to allowances reflects the underspend in totex (all costs except Business Support, pension and pass-through items) as defined at DPCR5, in particular 30% in capex over all licensees, except WPD S Wales and S West.

## Taxation

**Table 8.5 Tax Allowances compared to charge for DUoS activity**

£m (2010-11)	Allowance	Current CT charge from DUoS activity	Over-/ (under-) against allowance
WMID	27.9	56.4	28.5
EMID	23.7	46.0	22.2
ENWL	51.0	36.6	(14.4)
NPGN	27.7	27.7	0.0
NPGY	39.4	41.7	2.2
SWales	27.7	13.9	(13.8)
SWest	32.9	13.6	(19.3)
LPN	32.1	22.6	(9.5)
SPN	20.3	11.6	(8.7)
EPN	33.1	11.4	(21.7)
SPD	27.4	52.0	24.5
SPMW	26.3	12.0	(14.4)
SSEH	27.5	21.3	(6.2)
SSES	49.1	65.4	16.3
GB total	446.3	432.2	(14.1)

8.16. Table 8.5 shows the tax allowances<sup>63</sup> and reported corporation tax charge for DUoS<sup>64</sup> activities in the year. The variance reflects the under spend in capex reducing the allowable capital allowances for offset against taxable profits but also the reduction in taxable profits where there have been increase pension deficit payments. It also reflects changes in the opening capital allowance pools from that forecast for DPCR5 arising the subsequent settlement with HMRC on open tax years; and the difference between actual net interest and modelled notional interest and notional gearing used in setting the allowances. Overall there are variances between the individual DNOs attribution to capital allowance pools and the generic attributions assumed for setting allowances.

8.17. For this year, no licensees has triggered a clawback of the additional benefit of reducing its tax burden arising from actual gearing and interest both exceeding notional gearing and notional interest assumed in setting the tax allowance.

<sup>63</sup> Current corporation tax charge (excludes deferred tax or prior year adjustments, if any).

<sup>64</sup> Demand use of system charges

## 9. Compliance

This chapter sets out the DNOs compliance in 2010-11 with the requirements and obligations specified in the standard and special conditions of their respective electricity distribution licences.

9.1. The licences held by the monopoly electricity distribution network operators (DNOs) reflect the terms of the “contract” we set with the network companies as part of the price control settlement. In other words, the licence sets out what the companies will deliver and the revenues they are allowed to earn for delivering these outcomes. In some cases the licence obligations set a minimum level of service the licence holder is funded to deliver.

9.2. Misreporting is taken seriously by Ofgem. We rely on receiving accurate data from the companies in order to monitor performance and also to set revenue allowances at the start of the price control. Without accurate information, there is a risk that customers pay more for network services than they should, or that they do not receive a level of service in line with that expected when the allowed revenues were agreed.

9.3. Our ultimate objective is that companies take full responsibility for submitting accurate data to us and that prioritise the establishment and maintenance of appropriate systems and processes to ensure compliance with the licence.

9.4. Where we discover that a licensee has breached the terms of its distribution licence, we have the ability to impose a financial penalty on that company. Ongoing investigations are described on the Ofgem enforcement website.<sup>65</sup>

### Review of compliance arrangements

9.5. Over the past year, we have started to review the arrangements we have in place to ensure the accuracy of data submitted by licensees. The reporting requirements on DNOs and the associated assurance requirements have developed over time and we currently employ a variety of methods to provide assurance that data submitted is accurate.

9.6. While the existing arrangements in this area have been largely effective in providing comfort on the reliability of regulatory returns, there is scope to introduce a more coherent assurance framework, where greater assurance is required for the areas of highest risk.

9.7. Last year, we proposed to the licensees a framework whereby we would establish a common risk assessment methodology covering the catalogue of data

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<sup>65</sup> Ofgem Enforcement website

<http://www.ofgem.gov.uk/About%20us/enforcement/Investigations/CurrentInvest/Pages/CurrentInvstgtns.aspx>



that the companies provide to us. This risk assessment would cover various aspects of the likelihood and impact of the mis-statement of data to us. The licensees would be required to carry out this assessment themselves, and demonstrate to us that they have the appropriate checks in place to minimise the risks identified. Over the course of the 2012-13 year, we will be working with all of these companies to develop these proposals.

9.8. Our work on reviewing the compliance arrangements covers not only the DNOs but also the Transmission and Gas Distribution licensees as well. We are working towards implementing the new compliance arrangements at the start of the new price controls in the transmission and gas distribution sectors. These commence in April 2013.

9.9. We anticipate that the new arrangements for the DNOs will be in place for the start of the next price control, RII0-ED1.

### **Audits in 2010-11**

9.10. A number of DNOs commissioned audits on their reporting against the Electricity (Standards of Performance)<sup>66</sup>. This is not a requirement but is considered best practise.

9.11. In December 2011, Ofgem undertook an extended audit of the systems that UKPN's three DNOs (LPN, SPN and EPN) have in place to measure incidents, customer interruptions (CIs), customer minutes lost (CMLs) and the accuracy of the information reported by each DNO on these matters for the 2010/11 period. All three DNOs passed the CI and CML audit checks on a sample of incidents at each voltage level.

### **Compliance issues in 2010-11**

#### **Secondary network deliverables – health index**

9.12. Disappointingly, we are not publishing the secondary network deliverables indicator in this report as we are not confident in the robustness of the data. A number of DNOs have resubmitted data, which in places considerably revised their 2011 formal submissions under the licence.

9.13. Table 9.1 shows the extent of data revisions made by each DNO.

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<sup>66</sup> Electricity (Standards of Performance). Statutory Instrument 698 of 2010.

**Table 9.1 Revisions to data made by each DNO**

	Number of asset categories	Number of asset categories where data corrected	Changed categories as percentage of total categories
WMID	20	12	60%
EMID	18	12	67%
ENWL	20		0%
NPGN	19		0%
NPGY	19		0%
SWALES	13	1	8%
SWEST	13	1	8%
LPN	18	3	17%
SPN	20	7	35%
EPN	18	10	56%
SPD	9		0%
SPMW	15		0%
SSEH	12	1	8%
SSES	19	2	11%

9.14. We expect all DNOs to provide robust data across all metrics, both as part of DPCR5 and, importantly, in their submissions for the next price control RIIO-ED1. Where we do not have confidence in a company's data, their plans will be subject to greater regulatory scrutiny and, if required, may take enforcement action.

### Telephony

9.15. ENWL was unable to provide the speed of telephone response data over a total period of 29 days in 2010 (15 days in May and 14 days in June) due to a server problem. ENWL was also unable to report any data under the KM5a (total calls not reaching specified lines) throughout 2010/11. When this issue was raised, ENWL cooperated with Ofgem and provided proxy data to fill gaps in reported data.

9.16. ENWL's performance fell within the reward bracket (4.43). This data is used for reporting purposes. However, given the issues highlighted above no financial reward was allocated to ENWL.<sup>67</sup>

<sup>67</sup> Network companies are required under Standard Licence Condition (SLC45) to maintain appropriate systems, processes and procedures to enable them to measure, record and report the required information to the Authority within the specified timeframe.

## Appendices

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8	Feedback Questionnaire	

## Appendix 1 - Responses and questions

We welcome views on the content and format of information that users of this report would find useful.

Please send your comments to:

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## Appendix 2 – Distribution Network Operator contact information

1.1. Table A2.1 sets out the electricity distribution network operators (DNOs) contact information. Complaints regarding a DNO that does not have a dedicated complaints phone number should be raised via their general enquiries phone number.

**Table A2.1 DNO contact information**

DNO	Area	Emergency / Loss of supply (24 hour)	General enquires	Complaints	Website address
Western Power Distribution: West Midlands West (WMID)	West Midlands	0800 328 1111	0845 724 0240		<a href="http://www.westernpower.co.uk">www.westernpower.co.uk</a>
Western Power Distribution: East Midlands (EMID)	East Midlands	0800 056 8090	0845 724 0240		<a href="http://www.westernpower.co.uk">www.westernpower.co.uk</a>
Electricity North West Limited (ENWL)	North West England	0800 195 4141	0800 048 1820		<a href="http://www.enwl.co.uk">www.enwl.co.uk</a>
Northern Powergrid: Northeast (NPGN)	Northeast England	0800 668 877	0845 070 7172	0800 781 8848	<a href="http://www.northernpowergrid.com">www.northernpowergrid.com</a>
Northern Powergrid: Yorkshire (NPGY)	Yorkshire and North Lincolnshire	0800 375 675	0845 070 7172	0800 781 8848	<a href="http://www.northernpowergrid.com">www.northernpowergrid.com</a>
Western Power Distribution: South Wales (SWALES)	South Wales	0800 365 900	0845 601 2989		<a href="http://www.westernpower.co.uk">www.westernpower.co.uk</a>
Western Power Distribution: South West (SWEST)	South West England	0800 052 0400	0845 601 3341		<a href="http://www.westernpower.co.uk">www.westernpower.co.uk</a>
UK Power Networks: London Power Networks (LPN)	London	0800 028 0247	0845 601 4516	0800 028 4587	<a href="http://www.ukpowernetworks.co.uk">www.ukpowernetworks.co.uk</a>
UK Power Networks: South East Power Networks (SPN)	South East England	0800 783 8866	0845 601 4516	0800 028 4587	<a href="http://www.ukpowernetworks.co.uk">www.ukpowernetworks.co.uk</a>
UK Power Networks: Eastern Power Networks (EPN)	East Anglia	0800 783 8838	0845 601 4516	0800 028 4587	<a href="http://www.ukpowernetworks.co.uk">www.ukpowernetworks.co.uk</a>
Scottish Power: Distribution (SPD)	Central and Southern Scotland	0845 272 7999	0845 273 4444		<a href="http://www.spenergynetworks.co.uk">www.spenergynetworks.co.uk</a>
Scottish Power: Manweb (SPMW)	Merseyside, Cheshire and North Wales	0845 272 2424	0845 273 4444		<a href="http://www.spenergynetworks.co.uk">www.spenergynetworks.co.uk</a>
Scottish & Southern Energy: Hydro (SSEH)	North Scotland	0800 300 999	0800 048 3515		<a href="http://www.ssepd.co.uk">www.ssepd.co.uk</a>
Scottish & Southern Energy: Southern Electric Power Distribution (SSES)	South England	0800 072 7282	0800 048 3516		<a href="http://www.ssepd.co.uk">www.ssepd.co.uk</a>

## Appendix 3 – Contact information for stakeholders

1.1. Stakeholders and in particular customers can contact a number of third parties should they have a complaint regarding an energy network company. A consumer who has a complaint about an energy network company should direct their complaint to the company in the first instance. If a consumer considers the company has not satisfactorily resolved the issue they can contact one of the organisations below.

1.2. Consumer Focus is a consumer advocacy body. It operates across the whole of the economy, including the energy sector, promoting and campaigning for better access, value and service levels for consumers. Consumer Focus can investigate any consumer complaint if it is in the general interest of consumers. More information about Consumer Focus can be found on their website: [www.consumerfocus.org.uk](http://www.consumerfocus.org.uk).

1.3. The Energy Ombudsman is an independent and impartial body. It can investigate complaints from domestic and micro-business customers about their energy supplier or network operator and decide what actions should be taken when the parties cannot come to an agreement. More information about the Energy Ombudsman is available on their website: [www.energy-ombudsman.org.uk](http://www.energy-ombudsman.org.uk).

1.4. Consumer Direct is a telephone and online service offering information and advice on consumer issues. It is funded by the Office of Fair Trading and delivered in partnership with Local Authority Trading Standards Services. It provides clear, practical and impartial advice to help consumers sort out problems and disagreements with suppliers of goods or services. It offers help and advice to every consumer in Great Britain who is buying or has bought goods or services. More information about Consumer Direct can be found on their website: [www.consumerdirect.gov.uk](http://www.consumerdirect.gov.uk).

1.5. The Citizens Advice Bureau is a registered charity that provides consumer advice and information, education and advocacy. It has assumed a number of these responsibilities from Consumer Direct. These services are free, independent and confidential, and provide impartial advice to everyone on their rights and responsibilities. More information about the Citizens Advice (England and Wales) and Citizens Advice Scotland can be found on their respective websites: [www.citizensadvice.org.uk](http://www.citizensadvice.org.uk) and [www.cas.org.uk](http://www.cas.org.uk).

1.6. The Health and Safety Executive (HSE) is the national independent regulatory body for work-related health, safety and illness. It promotes better health and safety at work within Great Britain. The HSE and local authorities work in partnership to assist dutyholders in preventing work-related accidents and ill health. It aims to achieve this through investigations, inspections and proactive measures including stakeholder engagement, communications programmes and the provision of information and advice. More information about the HSE is available on their website: [www.hse.gov.uk](http://www.hse.gov.uk).

1.7. Energy suppliers and network operators offer a range of free services to their most vulnerable customers who are on their priority services register. These services are free to join and are available to domestic gas and electricity customers that are one of the following: of pensionable age, have a disability, have a hearing and or visual impairment or have long-term ill health. For more information contact your local energy supplier or network operator. Contact details for all the DNOs are set out in Appendix 2 of this report.

## Appendix 4 – 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.<sup>68</sup>

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<sup>69</sup>.

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<sup>70</sup>;
- 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.<sup>71</sup>

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<sup>72</sup> under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;

<sup>68</sup> Entitled “Gas Supply” and “Electricity Supply” respectively.

<sup>69</sup> 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.

<sup>70</sup> 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.

<sup>71</sup> The Authority may have regard to other descriptions of consumers.

- 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<sup>73</sup> 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.

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<sup>72</sup> or persons authorised by exemptions to carry on any activity.

<sup>73</sup> Council Regulation (EC) 1/2003



## Appendix 5 – Electricity Guaranteed Standards of Performance

9.17. Table A5.1 gives an outline of the Electricity Guaranteed Standards of Performance (EGS) and the payments due to customers for not meeting these. Some exemptions apply. The EGS codes shown here are only those which relate to DNOs.

**Table A5.1 Electricity Guaranteed Standards of Performance**

Reporting code	Service	Performance Level	Guaranteed standards Payments
EGS1	Responding to failure of distributor's fuse (Regulation 12)	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 for domestic and non-domestic customers
EGS2*	Supply restoration - normal conditions (Regulation 5)	Supply must be restored within 18 hours; otherwise a payment must be made.	£54 for domestic customers and £108 for non-domestic customers, plus £27 for each further 12 hours
EGS2A*	Supply restoration: multiple interruptions (Regulation 11)	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 for domestic and non-domestic customers
EGS2B*	Supply restoration - normal conditions (5,000 or more premises interrupted) (Regulation 6)	Where a large scale event occurs, that is where 5,000 or more customers' premises are interrupted by a single failure of, fault in or damage to a distributor's distribution system, then supply must be restored within 24 hours, otherwise a payment must be made	£54 for domestic customers and £108 for non-domestic customers, plus £27 for each further 12 hours up to a cap of £216 per customer
EGS2C*	Supply restoration – rota disconnections (Regulation 8)	Where supply to a customer's premises is interrupted as a result of rota disconnection on a distributor's distribution system by a failure of, fault in or damage to that system, then supply must be restored within 24 hours, otherwise a payment must be made	£54 for domestic customers and £108 for non-domestic customers

Reporting code	Service	Performance Level	Guaranteed standards Payments
EGS3	Estimate of charges for connections (Regulation 13)	Distributors must dispatch an estimate to the customer within either 5 working days or 15 working days (15 working days applies if significant work beyond a distributor's fuse and service line are necessary), otherwise a payment must be made	£44 for domestic and non-domestic customers
EGS4*	Notice of planned interruption to supply (Regulation 14)	Customers must be given at least 2 days notice, otherwise a payment must be made	£22 for domestic and £44 for non-domestic customers
EGS5	Investigation of voltage complaints (Regulation 15)	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 for domestic and non-domestic customers
EGS8	Making and keeping appointments (Regulation 19)	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 for domestic and non-domestic customers
EGS9	Payments owed under the standards (Regulation 21)	Payment to be made within 10 working days, otherwise a payment must be made	£22 for domestic and non-domestic customers
EGS11* (EGS11A, EGS11B and EGS11C)	Supply restoration: severe weather conditions (Regulation 7)	Depending on category of event supply must be restored within 24, 48 or a multiple of 48 hours, otherwise a payment must be made	£27 for domestic and non-domestic customers, plus £27 for each further 12 hours up to a cap of £216 per customer
EGS12*	Supply restoration: Highlands and Islands (Regulation 9)	Supply must be restored within 18 hours, otherwise a payment must be made	£54 for domestic customers and £108 for non-domestic customers, plus £27 for each further 12 hours

Note: \*Customers need to claim under standards marked with an asterisk. The remaining standards require DNOs to make payments proactively.

## Appendix 6 – Indicator calculation methodology

1.1. This appendix sets out the methods for calculating the traffic light performance indicators shown in Table 2.1 of Chapter 2. Table A6.1 presents the measures on which the 2010-11 traffic lights are based and an outline of the measures which may be used in future traffic lights.

**Table A6.1 Basis of Traffic Light Indicators**

Traffic light	Current basis	Potential future basis
Network health index	None	% delivery of network health deliverable. Refinements to the method likely
Network load index	None	We would look to include this in future reports
Reliability and Availability	Customer interruptions (CI) and Customer minutes lost (CML) performance against respective targets	No planned change
Customer satisfaction	Quality of telephone performance	We will base this on the broad measure of customer satisfaction from 2011-12
Connections	Competition tests, Connections and distributed generation (DG) standards of performance, DG fora feedback	In future we may base this on feedback from connections customers through the broad measure and potentially include the outcomes of connections related determinations
Environment	Placeholder only	Losses, Business carbon footprint (BCF), oil leakage, sulphur hexafluoride (SF6) leakage
Social responsibility	Use of Worst Served Customer (WSC) funding, Discretionary reward scheme (DRS), spend on undergrounding	The use of expenditure to consider performance on these aspects of social responsibility may be reviewed for subsequent reports. We will look to include the stakeholder engagement component of the broad measure from 2012-13.

### A – Network health index

1.2. We are currently refining a methodology to assess interim progress on the network health deliverable which is due by the end of the price control period. We will look to provide information on each DNO's progress in this area following the mid-period review of secondary network deliverables.

## B - Customer interruptions and Customer minutes lost

1.3. Each DNO's respective Customer interruptions (CI) and Customer minutes lost (CML) performance is set out in the second column of Table 2.1. The traffic light indicator is a measure of the DNO's performance against their respective targets.

1.4. Table A6.2 shows how CI and CML achieved by each DNO differed from their respective CI and CML targets. Performance better (lower) than both CI and CML targets scored green. Performance better (lower) than only one of the two targets scored amber. Performance worse (higher) than both CI and CML targets scored red.

**Table A6.2 CI and CML performance by DNO**




%	Performance against CI target	Performance against CML target	Traffic Light Indicator
WMID	-7.01	-7.73	green
EMID	-18.49	-20.43	green
ENWL	-9.64	-14.93	green
NPGN	-4.54	-0.28	green
NPGY	-7.17	-10.26	green
SWales	-26.54	-27.35	green
SWest	-16.44	-16.47	green
LPN	-26.95	3.41	amber
SPN	-9.53	-16.44	green
EPN	13.01	1.83	red
SPD	-15.64	-24.58	green
SPMW	-13.82	-22.26	green
SSEH	-3.90	4.39	amber
SSES	-13.82	-7.24	green

## C - Customer satisfaction

1.5. The customer satisfaction traffic light indicator is a measure of telephone response performance. Quality of telephone performance was measured using monthly customer surveys. DNOs were rewarded or penalised based on their overall annual score (out of five).

1.6. The traffic lights score is based on whether the DNO received a financial reward, penalty or neither, as shown in Table A6.3.

**Table A6.3 Basis of customer satisfaction traffic light**

Financial outcome	Component score
Penalty	
Neither reward nor penalty	
Reward	

1.7. A broad measure of customer satisfaction will come into effect from the 2012-13 regulatory year and will replace the telephony indicator. The broad measure encompasses three aspects of customer satisfaction including the results of the customer satisfaction survey, complaints metric and DNO stakeholder engagement.

## D – Connections

1.8. The indicator for connections performance is based on performance against the competition tests; Connections and Distributed Generation (DG)<sup>74</sup> Standards of Performance; and stakeholder feedback from the DG fora.

1.9. Concerns were raised by DG connections customers and other stakeholders regarding the level of service experienced across the industry.<sup>75</sup> For this reason, we have assigned all DNOs an amber component rating.

1.10. For 2010-11, the first year of the DPCR5 price control, no DNO had come forward for the competition test. This means that in 2010-11, no DNO had any market segments that passed the competition tests. All companies were therefore assigned an amber component rating.

1.11. The connections guaranteed standards of performance were only in place for six months of the year, therefore for this year all DNOs were assigned an amber component rating.

1.12. Based on these three aspects of performance, all DNOs received an amber rating for connections. We are looking to develop an indicator which provides more of a differential on connections performance in future.

## E – Environment

9.18. The environmental performance data we currently collect does not lend itself to a traffic light indicator. We are looking to collect performance data in a more amenable format to producing a traffic light in future. There is an environmental indicator placeholder in the table to represent this.

<sup>74</sup> Distributed generation is any electricity generation which is connected directly to the distribution network, as opposed to the transmission network, as well as combined heat and power schemes of any scale.

<sup>75</sup> Further information on the feedback from DG stakeholders is available on our website at: <http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=220&refer=NETWORKS/ELECDIST/POLICY/DISTGEN>

9.19. In future, we will look to use improvements in business carbon footprint, oil leakage and SF6 leakage as comparative measures to represent each DNO's environmental performance. We would potentially also look to use electrical losses.

## F - Social

1.13. The social obligations performance indicator is based on investment to improve the network for worst served customers (WSC)<sup>76</sup>, use of the undergrounding (UG) funding mechanism and awards from the electricity discretionary reward scheme (DRS).

1.14. DNOs scored one point for each of the mechanisms above. DNOs received a green traffic light indicator for two or more points, amber for one point and red for zero points as shown for each DNO in Table A6.4. A small traffic light indicator is used to reflect that some of these initiatives are new and others are available for use at any time during the price control, so we anticipate that 2010-11 performance may not be representative of long term performance in these areas.

**Table A6.4 Basis of social responsibility traffic light**

	Social responsibility
WMID	DRS UG
EMID	DRS UG
ENWL	UG
NPGN	DRS UG
NPGY	DRS UG
SWales	WSC DRS UG
SWest	WSC DRS UG
LPN	*
SPN	UG
EPN	UG
SPD	UG
SPMW	UG
SSEH	none
SSES	none

Note: At the time of setting DPCR5 final proposals, LPN had no worst served customers and therefore received no allowance. As such, LPN was awarded one point because it is considered to have high performance with regards to WSC. LPN also has no undergrounding allowance.

<sup>76</sup> A Worst Served Customer is defined as a network user who has had 15 or more interruptions to supply over 3 years and at least 3 interruptions in each of those three years.

## Appendix 7 - Feedback Questionnaire

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?

Please send your comments to:

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