

## 2008/09 Electricity Distribution Quality of Service Report

**Document Type:** Annual Report

Ref: 162/09

Date of Publication: 18 December 2009

**Target Audience:** This document may be of particular interest to electricity network operators, consumer groups, individual consumers and any other interested parties.

#### Overview:

DNOs provide an important service to customers when making a connection, restoring interruptions or when replying to complaints and queries. This report sets out the quality of service performance in the period 1 April 2008 to 31 March 2009 for the 14 electricity distribution network operators (DNOs). It also includes the metrics against which DNOs' quality of service performance is currently assessed and our proposals to broaden and amend these measures from April 2010 onwards.

Contact name and details: Dorothy Eke, Quality of Service Policy Analyst

Tel: 020 7901 7308

**Email:** dorothy.eke@ofgem.gov.uk

**Team:** Quality of Service

## Context

This document brings together quality of service indicators that Ofgem uses as part of its work in regulating network monopolies in order to encourage improvements in quality of service.

#### **Associated Documents**

- 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)
- 2004/05 Quality of Service Report (Reference 258/05)
- 2003/04 Quality of Service Report (Reference 260/04)
- 2002/03 Quality of Service Report (Reference 149/04)
- 2001/02 Quality of Service Report (Reference 51/03)
- Quality of Service Regulatory Instructions and Guidance version 5 (Reference 94/05)
- Guaranteed Standards: Ofgem Guidance and Proposals on Best Practice -Electricity Distribution
- <u>Electricity Distribution Price Control Review, Policy Paper (Reference 159/08)</u>
- <u>Electricity Distribution Price Control Review, Initial Proposals (Reference 92/09)</u>
- <u>Electricity Distribution Price Control Review, Final Proposals (Reference</u> 144/09

# Table of Contents

Summary	
1. Introduction	_
2. Background on the 14 Electricity Distribution Network Opera	
Distribution	
Location of the 14 Distribution Network Operators in GB	
3. Key Quality of Service Measures	
Overall Measures of Quality of Service	
<b>4. Interruptions Performance in GB</b>	II
Trends in GB Performance 2001/02 to 2008/09: total and excluding major	
2008/09 Performance against Targets	
2008/09 Performance against Average HV Benchmarks	
2008/09 Short Interruptions Performance	
5. 2008/09 Quality and Speed of Telephone Response Performa	
2008/09 Quality of Telephone Response Performance	
Developments in DPCR5	
2008/09 Speed of Telephone Response Performance	21
6. Customer Service Reward Scheme	
Format of the scheme	22
Awards for the scheme	22
7. Undergrounding in Areas of Outstanding Natural Beauty (AO	NBs)
and National Parks	
Format of the mechanism and allowance	24
Participation in the scheme	
Future of the scheme	
8. Ongoing Work	
Broad measure	
Customer service reward scheme	
Guaranteed standards of performance	
Worst served customers Interruptions Incentive Scheme ("IIS")	
Appendices	
Appendix 1 - DNO Summaries	
- <del>-</del> -	
Appendix 2 – Data Tables	
Minutes Lost	
Appendix 3 – 2008/09 Customer Interruptions (CIs) and Custo	
Minutes Lost (CMLs) by Source and by Voltage	
Appendix 5 - Authority's Powers and Duties	
Appendix 5 - Authority's Powers and Duties	
Appendix 6 - Glossary	59
ADDENUIX / - FEEGDACK QUESTIONNAIFE	ou

## Summary

Quality of service is one of Ofgem's key priorities for network regulation. Customers look to the electricity distribution network operators (DNOs) to keep interruptions to a minimum and restore them as quickly as possible when they are off supply. They expect to receive the various elements of connection service promptly and efficiently and for the DNOs to respond effectively to complaints and queries.

We place incentives on the DNOs to deliver an appropriate level of service to customers based where possible, on customers' willingness to pay. This report sets out the quality of service performance in the period 1 April 2008 to 31 March 2009 for the 14 DNOs. 2008/09 was the eighth year of reporting under our quality of service measures, the seventh year that the DNOs faced financial incentives on their quality of service performance and it was the penultimate year of the fourth distribution price control period (DPCR4).

There are a number of metrics against which DNOs' quality of service performance is currently assessed. These metrics form the basis of financial incentives to encourage DNOs to deliver an appropriate level of service to customers. DNOs can be rewarded or penalised for their performance in a number of areas. These areas are:

#### **Performance against interruptions target:**

We have set targets for each DNO for the number of unplanned power cuts per 100 customers (CIs) and the number of customer minutes lost per customer (CMLs) on their networks. Performance against these targets is linked to financial rewards and penalties.

#### Quality and speed of telephone response performance:

Each DNO is assessed on customer satisfaction with the quality of its telephone response through a monthly customer survey. DNOs may be rewarded or penalised depending on their overall annual score.

#### **Customer service reward scheme:**

This is a discretionary reward of £1 million per year designed to reward the performance of those DNOs that best serve the interests of their customers across the chosen categories throughout the year.

#### **Guaranteed standards of performance**

DNOs are subject to a number of guaranteed standards of performance that set out service levels that should be met. The standards cover a range of activities including supply restoration, connections and voltage quality. DNOs' performance against these standards can be a useful quality of service indicator. If the DNO fails to meet the level of service required, it must make a payment to the affected customer, subject to certain exemptions.

The key performance messages from this report are:

- The underlying average number of customer interruptions per 100 customers has fallen by 18 per cent and the number of customer minutes lost has reduced by 8 per cent since the introduction of the incentives in DPCR3;
- SSE Hydro, WPD South Wales and WPD South West will receive a reward for their performance against the telephony incentive for 2008/09 and EDFE LPN and EDFE SPN will be penalised for failing to meet the performance target we have set;
- Two companies will receive a reward for customer service improvements as part of the customer service reward scheme for 2008/09. Three companies will each receive a flagship award of £50,000 in recognition of individually outstanding initiatives. The panel we used to assess submissions commended all the DNOs who participated, some DNOs were particularly commended for the positive aspects of their submissions and with the way best practice identified in previous years had been built upon and widely adopted across the companies;
- Most DNOs performed strongly against their interruptions targets. WPD and SSE performed particularly strongly against their interruptions targets. EDFE's London business (LPN) also performed strongly against its interruptions target, however, the duration of interruptions were significantly above target and performance in telephony relatively poor for all three EDFE's networks (EPN, SPN LPN). The variations in interruptions performance may partly be explained by the fact that companies currently have different incentive rates that impact on their management decisions under the interruptions incentive scheme and they therefore face different economic trade-offs in investing in the network and responding to faults;
- The 14 DNOs have earned a combined net total of £89 million reward for performance against the interruptions targets over the last four years. The maximum reward was £30 million for SSE Southern and the maximum penalty was £12 million for CE YEDL. Rewards and penalties have accounted for between 85 and 192 basis points on the return on regulatory equity for DNOs over the last 4 years.
- We have proposed a number of new measures to improve DNOs focus on the service they provide to all their customers in DPCR5. Details of these measures and amendments to current measures are provided in the Electricity Distribution Price Control review Final Proposals document Incentives and Obligations (<a href="http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR5/Documents1/FP">http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR5/Documents1/FP</a> Incentives%20and%20Obligations%20FINAL.pdf).
- The 2009/10 quality of service report will be covering the DPCR4 quality of service measures.
- We are planning to publish a short stakeholder focussed report each year in DPCR5, which will seek to present the key quality of service messages in addition to covering other areas of interest to stakeholders.

#### 1. Introduction

- 1.1. All licensees operating electricity transmission or distribution systems are required to report annually on their performance in maintaining system security, availability and quality of service. This information provides a picture of the continuity and quality of service experienced by final customers.
- 1.2. Ofgem has made a commitment to publish an annual report on the overall performance of the 14 Distribution Network Operators (DNOs) and this report is the eighth of its kind. The aim of this report is to pull together the key information on the DNOs' quality of service in a format that is easy to understand. Transmission system information is published by the three companies responsible for transmission networks in the UK, National Grid Electricity (<a href="http://www.nationalgrid.com/uk/Electricity/">http://www.nationalgrid.com/uk/Electricity/</a>), SP Transmission (<a href="http://www.scottishpower.com/">http://www.scottishpower.com/</a>) and Scottish and Southern (<a href="http://www.scottish-southern.co.uk/SSEInternet/">http://www.scottish-southern.co.uk/SSEInternet/</a>). Information on Gas distribution can be obtained from the Gas Distribution Quality of Service report on our website.

(<a href="http://www.ofgem.gov.uk/CustomPages/Pages/Results.aspx?k=Gas%20Distribution%20Quality%20of%20service%20report">http://www.ofgem.gov.uk/CustomPages/Pages/Results.aspx?k=Gas%20Distribution%20Quality%20of%20service%20report</a>).

- 1.3. This document contains the following chapters:
- Chapter 2 Background on the Electricity Distribution Network Operators
- Chapter 3 Key Quality of Service Measures
- Chapter 4 Interruptions Performance in Great Britain
- Chapter 5 2008/09 Quality and Speed of Telephone Response Performance
- Chapter 6 Customer Service Reward Scheme
- Chapter 7 Undergrounding in Areas of Outstanding Natural Beauty
- Chapter 8 Ongoing Work
- 1.4. Summary tables and additional information on DNOs performance in 2008/09 is included in this report. Tables with summary information are also available on our website for years 2001/02 to 2008/09.
- 1.5. We carried out an audit of the data DNOs had provided to us on their quality of service performance in the summer of 2009. No data required adjusting and all DNOs met the required accuracy thresholds, either via the initial smaller sample or through an audit of the full sample. This was the eighth year of such audits as well as audits for exceptional events.
- 1.6. We aim to make the complex information relating to the distribution network operators as meaningful and user friendly as possible and we welcome any comments or suggestions for the format of future reports.

1.7. We are currently inviting views on what information would be useful to stakeholders in an annual stakeholder's report. We are looking for comments by 22 January 2010. Please see Ofgem Open Letter on Annual Stakeholder report on electricity distribution

(<a href="http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=392&refer=NETWORKS/ELECDIST/PRICECNTRLS/DPCR5">http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=392&refer=NETWORKS/ELECDIST/PRICECNTRLS/DPCR5</a>)

## 2. Background on the 14 Electricity Distribution Network Operators

- 2.1. At privatisation, the Public Electricity Suppliers (PESs) were responsible for both the distribution and supply of electricity, taking the place of the former regional electricity boards. With the introduction of competition in supply, it was important to ensure that all supply businesses, including new entrants, had fair access to the distribution networks.
- 2.2. The Utilities Act 2000 introduced separate licences for distribution and supply, and required that these be held by separate legal entities.

#### **Distribution**

- 2.3. Distribution Network Operators are responsible for local distribution of electricity along overhead wires and through underground cables. This includes responsibility for ensuring that customers have a reliable electricity supply and restoring customers promptly in the event of an interruption to their electricity supply. We have schemes in place to make payment to customers where particular standards of supply are not met.
- 2.4. The DNOs also face rewards and penalties depending on how well they perform and these arrangements are discussed in the next Chapter. Following privatisation and a number of corporate acquisitions, during 2008/09 the 14 distribution licenses are owned by seven separate companies (see map on page 4). In addition to the 14 distribution network operators, there are also six licensed Independent Distribution Network Operators (IDNOs)<sup>1</sup>

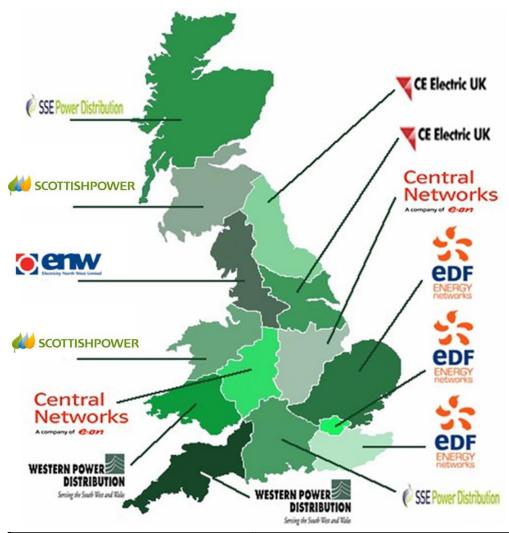
#### 2.5. How much does distribution cost the customer?

Electricity customers currently pay £3.6 billion annually for electricity distribution. This amounts to approximately 15 per cent of an average domestic customers' bill or around £76 per year based on consumption of 3300 kWh of electricity a year. Business customers face a wider range of electricity distribution bills, with smaller businesses paying around £270 per year, medium businesses around £2,000 per year and larger businesses paying as much as £28,000 per year.

Office of Gas and Electricity Markets

<sup>&</sup>lt;sup>1</sup> These are; ECG Distribution Ltd, EDF Energy (IDNO) Ltd, The Electricity Network Company Ltd, Energetics Electricity Ltd, ESP Networks Ltd & Independent Power Networks Ltd

## Location of the 14 Distribution Network Operators in GB



Name in the report	Name on Map
CN West	Central Networks
CN East	Central Networks
ENW	Electricity North West Limited
CE NEDL	CE Electric UK
CE YEDL	CE Electric UK
WPD S Wales	Western Power Distribution
WPD S West	Western Power Distribution
EDFE LPN	EDF Energy Networks
EDFE SPN	EDF Energy Networks
EDFE EPN	EDF Energy Networks
SP Distribution	Scottish Power Energy Networks
SP Manweb	Scottish Power Energy Networks
SSE Hydro	SSE Power Distribution
SSE Southern	SSE Power Distribution

## 3. Key Quality of Service Measures

- 3.1. There are two main sets of quality of service measures for the DNOs.
- Overall measures of the quality of service the DNOs provide; and
- Guaranteed Standards of Performance (annual performance statistics). This
  information will now be published by Consumer Focus, in accordance with its
  duties under section 42A of the Electricity Act 1989 (as amended)<sup>2.</sup> Consumer
  Focus is the new statutory organisation campaigning for a fair deal for consumers
  in England, Wales and Scotland<sup>3.</sup>

## **Overall Measures of Quality of Service**

- 3.2. The current quality of service incentive scheme which was introduced in April 2005 relates to the following areas:
- the number and duration of interruptions to supply per year these are defined as the number of customers affected by power cuts per 100 customers per year and the average minutes without power per customer per year, only including power cuts that last three minutes or longer. Where several outages occur affecting the same customer as part of the same fault, this will only count as one power cut<sup>4</sup>.
- the quality of telephone response this is assessed through a customer survey carried out on a monthly basis by Accent Marketing and Research. Accent survey a sample of customers who have recently called their DNO with respect to power cuts or a dangerous situation, asking for customers' views in five key areas as set out in the telephony section on page 18.
- 3.3. In addition, DNOs are required to report the following information:
- the number of short interruptions to supply per year the number of customers affected by power cuts lasting less than three minutes per 100 customers per year;
- disaggregated information on interruptions by source, voltage and HV circuit; and
- disaggregation by frequency and duration bands

<sup>&</sup>lt;sup>2</sup> The consumers, Estate Agents and Redress Act 2007, section 30(3)(a) transfers the functions of energywatch to Consumer Focus

<sup>&</sup>lt;sup>3</sup> http://www.consumerfocus.org.uk/

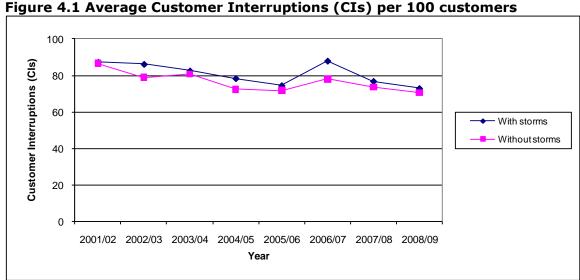
<sup>&</sup>lt;sup>4</sup> Unless the second or subsequent power cuts occurred more than 3 hours after all customers in the first power cut were restored, or after 18 hours in the case of temporary restoration.

3.4. A summary of the standards of performance and Best Practice guidance document on the guaranteed standards of performance is available on our website (see Associated Documents).

## 4. Interruptions Performance in GB

This chapter presents performance trends in Great Britain customer interruption and customer minutes lost over the past eight years. We set out the performance in 2008/09 of the 14 distribution companies against their 2008/09 incentive scheme targets, disaggregated performance against benchmarks and short interruptions in 2008/09.

## Trends in GB Performance 2001/02 to 2008/09: total and excluding major storms



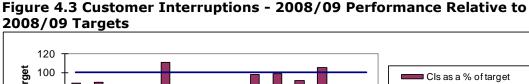
120 Customer Minutes Lost (CMLs) 100 80 - With storms 60 Withoutstorms 40 20 0 2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09 Year

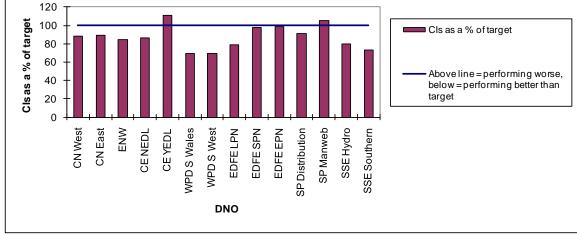
Figure 4.2 Average Customer Minutes Lost (CMLs) per customer

4.1. Figure 4.1 and 4.2 show the average performance for Britain's distribution networks from April 2001 to March 2009. As part of the Information and Incentive Project, more robust definitions and consistent reporting of interruptions data were introduced from April 2001. Historically data had been significantly under-reported. The underlying average number of customer interruptions per 100 customers has fallen by 18 per cent and the number of customer minutes lost has reduced by 8 per cent. Over the years, DNO performance has been impacted by severe weather conditions such as the October 2002 storms, the January 2005 storms, the December 2006 and January 2007 storms.

## 2008/09 Performance against Targets

4.2. Figures 4.3 and 4.4 show DNOs' 2008/09 performance relative to their targets for the year. Targets are set taking into account DNOs' historical performance and other network factors and they vary for each DNO. DNOs that outperformed their targets are below the line and those that failed are above. In 2008/09 12 of the 14 DNOs outperformed their CI targets and will receive a reward under the incentive scheme while the remaining two DNOs will be penalised. Eight DNOs beat their CML targets in the same period and will receive a reward. The remaining six DNOs will be penalised for CML performance. Individual company rewards and penalties for the last four years are shown in table 4.1 and appendix 1 sets out figures for this year.





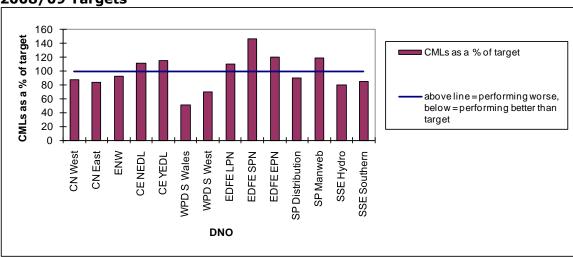


Figure 4.4 Customer Minutes Lost - 2008/09 Performance Relative to 2008/09 Targets

- 4.3. In measuring DNOs' performance against the targets, Ofgem recognises that the number of interruptions arising on other networks (e.g. transmission networks) are outside the DNOs control and are therefore excluded. However, a DNO can take appropriate actions to mitigate the duration of these interruptions. Ten per cent of the duration of interruptions on other networks is therefore included in assessing performance against targets.
- 4.4. On the evidence of customer research carried out as part of the fourth price control review, the weighting attached to planned/pre-arranged interruptions and minutes lost was reduced from 100 per cent to 50 per cent as customers were less inconvenienced when they had forewarning of an interruption.
- 4.5. DNOs may also claim an adjustment for events which they believe were exceptional and had a significant impact on their performance. Ofgem will only make such an adjustment if the event is found to be exceptional. In 2008/09 we recorded 11 severe weather exceptional events and a one-off exceptional event.
- 4.6. For severe weather exceptional events, Ofgem will exclude the full impact of the event on customer interruptions and customer minutes lost. For one-off exceptional events, only those customer interruptions and/or those customer minutes lost exceeding the relevant CI and CML thresholds are eligible for exclusion. The size of the adjustment(s) also depends on whether the DNO took all reasonable steps to prevent the incident occurring and took all reasonable steps to restore customers in an efficient and effective manner.

Table 4.1 - DNO interruptions performance to date (2005/06-2008/09) and financial impact

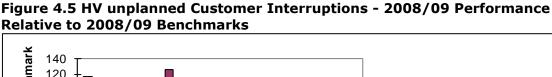
				CUST	OMER INTERU	PTIONS (CI)			
	200	05/06	2006/	'07	200	07/08	2008,	/09	
	Target	Performance	Target	Performance	Target	Performance	Target	Performance	Total 4 year penalties and rewards (£million)
CN West	109.4	107.8	107.8	119.3	106.2	116.9	104.6	92.8	-£ 1.07
CN East	77.9	71.0	77.5	83.8	77.1	79.4	76.7	68.5	£ 1.21
ENW	57.2	49.8	57.1	54.4	57.1	50.7	57.1	48.3	£ 5.41
CE NEDL	74.5	65.7	74.5	74	74.5	66.3	74.5	64.2	£ 3.23
CE YEDL	68.7	67.2	68.6	84.8	68.5	75.7	68.5	76.4	-£ 4.82
WPD S Wales	99.7	81.3	98.2	83.4	96.8	77.7	95.3	66.1	£ 6.28
WPD S West	84.5	72.1	84.5	80.3	84.5	76.4	84.5	58.4	£ 5.35
EDFE LPN	36.2	32.0	36.2	36.9	36.2	31.5	36.2	28.7	£ 5.57
EDFE SPN	90.5	77.8	88.5	85.9	86.5	90.1	84.5	82.7	£ 1.43
EDFE EPN	90.3	66.2	88.8	77.2	87.2	73.1	85.7	84.8	£ 8.70
SP Distribution	60.9	57.6	60.8	64.9	60.8	58.6	60.8	55.7	£ 1.78
SP Manweb	46.7	42.7	46.7	46.1	46.7	43.1	46.7	49.3	£ 1.14
SSE Hydro	96.2	77.9	95.8	78.6	95.5	69.2	95.2	75.8	£ 7.63
SSE Southern	91.0	78.2	90.1	75.3	89.2	65.7	88.3	64.3	£ 15.48
									£ 57.33

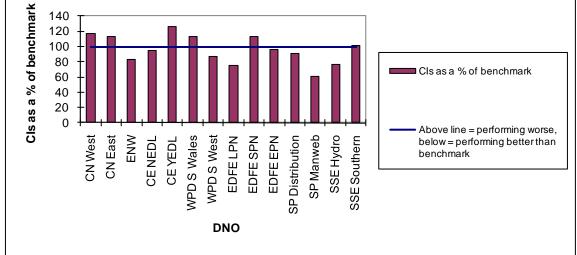
	CUSTOMER MINUTES LOST (CML)								
	200	05/06	2006/	07	200	07/08	2008,	/09	
	Target	Performance	Target	Performance	Target	Performance	Target	Performance	Total 4 year penalties and rewards (£million)
CN West	102.3	83.6	98.5	110.7	94.7	101.5	91.0	79.3	£ 1.99
CN East	80.1	62.6	76.7	80.8	73.4	70.4	70.0	58.4	£ 6.33
ENW	59.8	47.5	58.1	57.7	56.4	48.1	54.7	50.8	£ 6.53
CE NEDL	71.4	64.4	70.4	78.2	69.4	70.5	68.4	76.3	-£ 1.62
CE YEDL	68.5	67.4	66.8	81.7	65.1	75	63.4	73.0	-£ 7.08
WPD S Wales	72.2	42.2	72.2	47.6	72.2	41.9	72.2	36.8	£ 11.92
WPD S West	62.2	43.5	62.2	50.1	62.2	50	62.2	43.9	£ 12.14
EDFE LPN	40.2	34.4	40.1	43	40.1	42.6	40.1	44.2	-£ 1.59
EDFE SPN	81.4	72.5	77	88.7	72.6	102.6	68.2	99.8	-£ 7.65
EDFE EPN	73.7	57.1	72.2	68.4	70.6	73.8	69.1	88.3	-£ 1.27
SP Distribution	64.9	66.7	61.2	77.5	57.6	60.6	54.0	48.5	-£ 4.62
SP Manweb	51.8	57.4	49.9	62.7	48	54.7	46.1	54.8	-£ 8.45
SSE Hydro	95.9	64.7	94.9	76.8	93.9	71.6	93.0	75.1	£ 10.91
SSE Southern	82.0	68.7	80.5	70.9	78.9	66.2	77.4	65.6	£ 14.02
									£ 31.54

## 2008/09 Performance against Average HV Benchmarks

- 4.7. Although the number of unplanned power cuts per 100 customers (CIs) and the number of customer minutes lost per customer (CMLs) take account of different customer numbers in each DNO, performance still varies significantly. The difference in performance can be as a result of a number of different factors such as;
- Inherited Differences differences in the business inherited at privatisation such as network design and configuration;
- Inherent Differences differences in the area in which the DNO operates which may include topographic factors such as length of network, customers' location and customer density etc;
- Exceptional Events events outside the control of the DNO which can affect performance such as severe weather;
- Incurred Differences differences that are a direct result of management decisions including the strategy taken for operating and maintaining the network.

- 4.8. 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 benchmarks for CIs and CMLs taking into account inherited and inherent differences in the DNOs' networks (and excluding exceptional events). In essence this method involves grouping physically similar parts of networks together and then comparing performance at this more disaggregated level. Overall benchmarks are then calculated for each company based on the number of circuits it has in each group.
- 4.9. Each DNO's performance is compared to their benchmark (actual performance divided by benchmark, expressed as a percentage). As the benchmarks are calculated based on similar groups of circuits and take into account DNOs' own customer numbers per circuit and average circuit length, this method provides a more robust basis for comparing quality of supply performance. It forms one of the key inputs to our target setting for DPCR5.
- 4.10. Care should be taken in interpreting the results as there are a range of factors that may explain the remaining gaps. The 2004/05 Quality of Service report contains a more detailed explanation of the process.
- 4.11. Restoration of supplies in remote areas and those with low population density can sometimes be delayed by difficult terrain and longer distances between DNO depots and customers. Similarly in urban areas, the time taken to reach a fault may be affected by traffic congestion. DNOs are typically tackling these issues by investing in protection, network automation, remote-control, reorganisation of fault teams to locate them closer to the areas they serve and more recently, satellite navigation and in some cases mobile tracking for restoration crews.





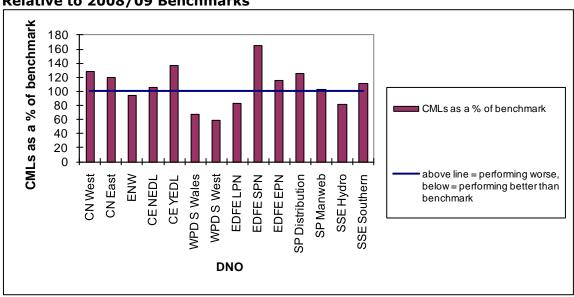
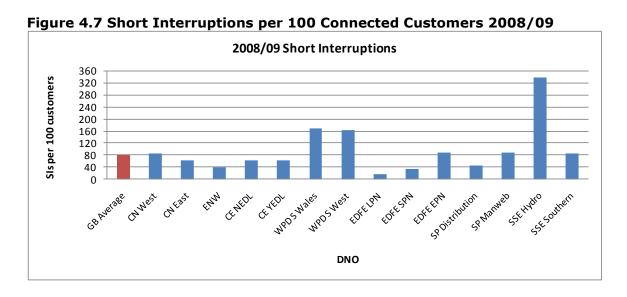


Figure 4.6 HV unplanned Customer Minutes Lost - 2008/09 Performance Relative to 2008/09 Benchmarks

These numbers are derived from the first four years of DPCR4 data as explained in Chapter 83 of DPCR4 Final Proposals Incentives and Obligations document.

## **2008/09 Short Interruptions Performance**



4.12. The average number of short interruptions per 100 connected customers across Great Britain was 78. Figure 4.7 shows the performance of each of the DNOs. SSE Hydro reported significantly above the GB average, followed by WPD South Wales and WPD South West. SP Manweb, EDFE EPN, SSE Southern and CN West also recorded figures above the GB average but not significantly so. SSE Hydro may be an outlier because their network has long radial feeders with many auto-reclosers that can cause short interruptions. The remaining seven DNO areas,

CN East, Electricity North West Ltd, CE NEDL, CE YEDL, EDFE LPN, EDFE SPN and SP Distribution recorded figures below the GB average with figures for EDFE LPN and EDFE SPN being significantly so.

- 4.13. Short interruptions are brought about by operations of the network designed to reduce the length of interruptions. The majority of short interruptions are associated with automatic restoration schemes, such as:
- pole mounted auto-reclosers;
- ground mounted auto-reclosers;
- rural automation schemes; and
- load transfer schemes

# 5. 2008/09 Quality and Speed of Telephone Response Performance

## 2008/09 Quality of Telephone Response Performance

- 5.1. Each of the DNOs is assessed on customer satisfaction with the quality of its telephone response through a customer survey carried out on a monthly basis. Performance is currently assessed across the five key areas listed below:
- The politeness of the members of staff;
- Their willingness to help;
- The accuracy of the information given (if information was given);
- The usefulness of the information given (if information was given); and
- Satisfaction with the speed to telephone response
- 5.2. 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 loss. An overall performance score is calculated for each DNO.
- 5.3. DNOs are only subject to a sliding-scale penalty if their annual mean performance deteriorates below 4.1 (the minimum average performance level at the time of revising the scheme). A DNO will be liable for the full penalty of 0.25 per cent of revenue if its annual mean score falls below 3.6. There is a small reward of 0.05 per cent of revenue for those DNOs with annual mean scores equal to or greater than 4.5. This revised and simplified structure ensures that DNOs are incentivised to maintain a high level of performance with regard to telephony and that exceptional performance is rewarded.
- 5.4. Table 5.1 below shows the combined mean scores for the period from 1 April 2008 until 31 March 2009 for each DNO for the five assessed attributes listed above. The performance scores and rankings reported here are based on the mean annual scores.
- 5.5. The overall assessed mean score for 12 months period was 4.37. SSE Hydro recorded the highest score (4.62) followed by WPD S Wales (4.57) along with WPD S West (4.51). SSE Hydro and WPD S Wales have been the highest scoring DNO areas on telephony since 2004/05. Nine DNO areas recorded scores above the overall mean for 2008/09 with scores for five DNO areas significantly higher. SP Manweb recorded a score above the overall mean by .1, while the remaining four DNO areas performed below the overall mean with two performing below the penalty threshold. EDFE SPN and EDFE LPN recorded overall mean scores below the penalty threshold and as such were penalised.

Table 5.1 2008/09 Overall Performance Scores (All Assessed Attributes)

Ranking 08/09 (07/08)	DNO	08/09 Scores	Rewar	ds/Penalties
	Ind. Mean 04/05	4.35		
	Ind. Mean 05/06	4.34		
	Ind. Mean 06/07	4.30		
	Ind. Mean 07/08	4.33		
	Ind. Mean 08/09	4.37		
1(1)	SSE Hydro	4.62	£	90,500
2(2)	WPD S Wales	4.57	£	77,650
3(3)	WPD S West	4.51	£	95,100
4(6)	ENW	4.47	£	-
5(4)	CE NEDL	4.46	£	-
6(5)	CN East	4.43	£	-
7(6)	SSE Southern	4.42	£	-
8(8)	CN West	4.41	£	-
9(9)	CE YEDL	4.41	£	-
10(10)	SP Manweb	4.38	£	-
11(12)	SPD	4.26	£	-
12(11)	EDFE EPN	4.19	£	-
13(13)	EDFE SPN	4.00	-£	87,550
14(13)	EDFE LPN	3.98	-£	144,600

## **Developments in DPCR5**

5.6. The DPCR4 telephony scheme was designed as a backstop scheme to encourage DNOs to maintain good levels of performance. In practice, telephony performance has remained relatively consistent since 2004/05. The telephony incentive scheme will be incorporated into the broad measure of customer satisfaction from April 2012. Whilst developing the broad measure in parallel to go live in April 2012 the following changes will be made to the telephony incentive scheme for the first 2 years of DPCR5:

- we will streamline the existing five assessed attributes to three (politeness of staff, usefulness of information provided and satisfaction with speed of response)
- we will include unsuccessful calls within the incentive scheme to supplement the telephony survey and apply a 75 per cent weighting on unsuccessful calls to encourage DNOs to keep all unsuccessful calls to a minimum
- the reward and penalty thresholds will be revised to take account of the changes to the telephony incentive scheme. This will be achieved by applying an industry upper quartile of unsuccessful calls (four percent) from the first four years of DPCR4. We explain this in more detail below.

5.7. Tables 5.2 and 5.3 below show the average assessed scores based on DPCR4 scores and average assessed scores based on streamlined attributes from five to three and the incorporation of a proportion of unsuccessful calls:

**Table 5.2 DPCR4 telephony performance (without adjustments)** 

		DPCR4 performance				
	2005/06	2006/07	2007/08	2008/09	4 yr average	
CN West	4.29	4.33	4.37	4.41	4.35	
CN East	4.36	4.37	4.40	4.43	4.39	
ENW	4.29	4.13	4.39	4.47	4.32	
CE NEDL	4.44	4.44	4.43	4.46	4.44	
CE YEDL	4.33	4.38	4.34	4.41	4.36	
WPD S Wales	4.49	4.50	4.56	4.57	4.53	
WPD S West	4.43	4.41	4.47	4.51	4.46	
EDFE LPN	4.20	4.17	4.03	3.98	4.09	
EDFE SPN	4.29	4.18	4.03	4.00	4.13	
EDFE EPN	4.34	4.27	4.16	4.19	4.24	
SP Distribution	4.11	4.00	4.14	4.26	4.13	
SP Manweb	4.24	4.18	4.30	4.38	4.28	
SSE Hydro	4.57	4.54	4.57	4.62	4.57	
SSE Southern	4.37	4.35	4.39	4.42	4.38	
<b>DNO</b> Average	4.34	4.30	4.33	4.36	4.33	

Table 5.3 Average assessed scores based on streamlining attributes from five to three and incorporating a proportion of unsuccessful calls

	DPCR4 scores adjusted (3 attributes & unsuccessful calls)			4 yr average with				4 yr average		
	2005/06	2006/07	2007/08	2008/09	calls	2005/06	2006/07	2007/08	2008/09	average
CN West	4.18	4.10	4.18	4.29	4.19	3%	7%	5%	3%	5%
CN East	4.26	4.11	4.23	4.35	4.24	3%	7%	5%	2%	4%
ENW	4.06	3.93	4.33	4.44	4.19	6%	5%	1%	0%	3%
CE NEDL	3.99	4.20	3.97	4.20	4.09	13%	7%	14%	8%	10%
CE YEDL	4.01	4.07	3.84	4.21	4.03	9%	9%	16%	6%	10%
WPD S Wales	4.47	4.49	4.52	4.54	4.50	1%	1%	1%	1%	1%
WPD S West	4.41	4.37	4.44	4.48	4.43	1%	1%	1%	1%	1%
EDFE LPN	3.38	3.39	3.51	3.66	3.49	25%	23%	17%	10%	19%
EDFE SPN	3.80	3.66	3.59	3.68	3.68	15%	16%	14%	10%	14%
EDFE EPN	3.75	3.67	3.78	3.87	3.77	17%	18%	12%	10%	14%
SP Distribution	3.93	3.85	4.00	4.08	3.96	6%	5%	5%	5%	5%
SP Manweb	4.01	3.91	4.13	4.18	4.06	6%	8%	5%	5%	6%
SSE Hydro	4.15	4.10	4.42	3.94	4.15	13%	13%	4%	19%	12%
SSE Southern	4.18	4.12	4.17	4.03	4.12	6%	7%	6%	11%	8%
DNO Average	4.04	4.00	4.08	4.14	4.06	9%	9%	8%	7%	8%

5.8. Table 5.3 above also shows the impact of the proposed changes to the telephony scheme on DPCR4 scores. As expected based on DPCR4 scores and unsuccessful calls, streamlining the attributes and including percentage unsuccessful calls within the scheme would push a number of DNOs into penalty territory and a number of frontier performers into the dead band.

## 2008/09 Speed of Telephone Response Performance

5.9. DNOs are required to report to Ofgem each month their performance on the speed of telephone response by an agent once a customer has decided to speak to an agent (for more information see 2004/05 QofS report). There are no financial incentives attached to this measure.

5.10. Table 5.4 below shows the average speed of response (in seconds) for the period 1 April 2008 until March 2009 for each DNO split by telephony system<sup>5</sup>.

Table 5.4 2008/09 Average Speed of Telephone Response by Telephony System

Hold sys	tem	Redial system		
DNO	Response time(s)	DNO	Response time(s)	
WPD S West	1.71	Electricity North West	4.90	
WPD South Wales	1.85	CE YEDL	16.87	
SSE Hydro	16.17	CN East	17.44	
CE NEDL	16.78	CN West	22.98	
SP Distribution	20.14	EDF Energy EPN	67.33	
SSE Southern	21.44	EDF Energy SPN	77.58	
SP Manweb	22.00	EDF Energy LPN	83.42	
Average	16.40		47.60	

Office of Gas and Electricity Markets

21

<sup>&</sup>lt;sup>5</sup> Hold systems require customers to wait for an agent following an automated message. Redial systems require customers to dial an alternative number to speak to an agent following an automated message.

## 6. Customer Service Reward Scheme

The aim of the customer reward service scheme is to encourage better service for consumers in areas of performance that cannot be easily measured or incentivised through more mechanistic regimes. It has been in operation since 2005/06.

6.1. The Customer Service Reward Scheme recognises leading performance and beacons of excellence within the industry and drives innovation and creativity through the promotion of best practice. It is designed to reward the performance of those DNOs which best serve the interests of customers across the chosen categories throughout the year, particularly those DNOs which exceed their licence obligations and have embedded these areas of customer service into their business processes.

#### Format of the scheme

6.2. The scheme has a total annual reward of £1 million available across all DNOs and for DPCR4 the categories of focus are; priority customer care, wider communications and corporate social responsibility. In 2008/09 the following rewards were available:

Corporate social responsibility initiatives: £500,000
 Priority customer care initiatives: £500,000

6.3. Entries were assessed by an independent panel of judges who recommend which companies should be rewarded and the split of the reward.

#### Awards for the scheme

#### **Corporate Social Responsibility Initiatives**

- 6.4. Scottish and Southern Energy (SSE) is to receive £200,000 reward in recognition of the breadth of its corporate social responsibility programme, which was seen to go beyond the core business drivers. According to the panel, SSE demonstrated an enduring, long-term commitment to corporate social responsibility in their partnership work with Barnados to tackle youth unemployment in Scotland. Their support for a local radio station (Isles FM) to serve customers in isolated communities was also recognised. Their initiatives were seen to be examples of corporate social responsibility that delivered wider benefits for the community and demonstrated senior management engagement with the cause without necessarily providing any direct benefits to the DNOs themselves.
- 6.5. Central Networks (CN) and Western Power Distribution (WPD) are to receive a flagship award of £50,000 each in recognition of their individual outstanding initiatives in this category. CN was recognised for its staff visual awareness training programme designed to minimise the safety risk and inconvenience of temporary street works to visually impaired people. WPD was recognised for its empathy

training project which encourages staff engagement with vulnerable customers and delivers benefits for the wider community as well as the company.

#### **Priority Customer Care Initiatives**

- 6.6. Western Power Distribution (WPD) is to receive £300,000 under this category for exceeding its obligations to support vulnerable customers. In particular their efforts to maintain the quality of customer information on their priority services register (PSR), being proactive in contacting customers during outages and having a positive approach to working with suppliers to overcome data protection issues were highly commended. WPD demonstrated a wider business commitment to supporting vulnerable customers.
- 6.7. EDF Energy is to receive a flagship award of £50,000 in recognition of its partnership work with the British Red Cross. This was seen to be a creative and valuable initiative to support vulnerable customers during power cuts.
- 6.8. The panel commended priority customer care initiatives put forward by Central Networks and Scottish and Southern Energy. Central Networks provided 4000 analogue phones for vulnerable customers to encourage them to make contact during power cuts and SSE launched their "Lights On" initiative aimed at maintaining supplies for priority customers in remote areas.
- **6.9.** The panel also commended all DNOs that entered the scheme for the positive aspects of their submission. The panel was pleased with the way best practice identified in previous years had been built upon by the DNOs and widely adopted across the companies. The 2008/09 submissions can be viewed on the Ofgem website

(<a href="http://www.ofgem.gov.uk/Networks/ElecDist/QualofServ/CustServRewSch/Pages/CustServRewSch.aspx">http://www.ofgem.gov.uk/Networks/ElecDist/QualofServ/CustServRewSch/Pages/CustServRewSch.aspx</a>)

#### **Future of the scheme**

6.10. The 2009/10 scheme has a total annual reward of £1million available across all DNO groups and will cover:

Wider communication strategies	£600,000 reward
Corporate social responsibility	£400,000 reward

# 7. Undergrounding in Areas of Outstanding Natural Beauty (AONBs) and National Parks

The purpose of the Undergrounding scheme is to facilitate DNOs in engaging with stakeholders in order to improve visual amenity in Areas of Outstanding Natural Beauty (AONB) and National Parks.

#### Format of the mechanism and allowance

7.1. Under the current scheme introduced at the beginning of DPCR4 in 2004-05, DNOs have been allowed to log up their actual capital expenditure on undergrounding overhead lines in National Parks and AONBs, to an overall national cap of £64m6, with the following voltage caps:

- EHV and 132kV lines; £350k per km,
- HV lines; £85k per km,
- LV lines; £65k per km.

7.2. The DNOs are then allowed to recover this money from customers at the end of the five-year price control through these costs being added to the Regulatory Asset Value (RAV). The individual logging up of these costs is subject to each DNO being able to demonstrate that it has taken account of advice from local environmental groups and/or planning bodies in determining how any expenditure on network undergrounding is prioritised. For further information on how these costs have been logged up, please refer to Appendix 1 of the DPCR4 Final Proposals document. (http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR4/Document s1/8944-26504.pdf)

## Participation in the scheme

7.3. Table 7 below outlines each DNO's participation in the Undergrounding mechanism in terms of their relevant logged up expenditure and kilometres of Overhead lines in the relevant areas that have been removed;

#### **Future of the scheme**

7.4. The current regulatory arrangements for DPCR4, as explained above, run until 31 March 2009. Due to the relatively high level of customer willingness to pay for visual amenity improvements in these areas, Ofgem has pledged to continue the scheme into the next price control period (DPCR5) which ends in March 2015. The scheme will run in a very similar way to DPCR4 with DNOs logging up the costs of the work and recovering it from customers at the end of the 5-year price control. Our Initial Proposals for DPCR5 document explained our intention to remove the individual voltage caps whilst retaining an overall DNO cap. Following on from the

<sup>&</sup>lt;sup>6</sup> Expenditure cap set in 2002/03 prices

consultation responses to its publication, Ofgem has decided to allow 10% of the costs logged up to account for work that takes place outside the designated areas (with the same stakeholder engagement requirements as currently in operation). For further details on how the undergrounding scheme will operate from 1 April 2010, please refer to the Final Proposals document (Electricity Distribution Price Control Review Final Proposals - Incentives and Obligations).

Table 7- DNO undergrounding in AONB and National Park expenditure<sup>7</sup> logged up in first four years of DPCR4 and relevant lengths of overhead lines removed <sup>8</sup>

removed	Reporting year:	2005-06	2006-07	2007-08	2008-09	4-ve	ar total
	Expenditure (£m)	-	_	-	0.1	£	0.12
CN West	Overhead lines removed (km)	-	-	-	0.2		0.2
	Expenditure (£m)	-	-	-	0.0	£	0.01
CN East	Overhead lines removed (km)	-	-	-	-		-
	Expenditure (£m)	0.0	0.1	0.2	0.9	£	1.19
ENW	Overhead lines removed (km)	-	1.4	0.0	7.1		8.5
	Expenditure (£m)	-	0.2	0.9	0.5	£	1.57
CE NEDL	Overhead lines removed (km)	-	3.1	2.4	5.0		10.5
	Expenditure (£m)	-	0.2	0.4	0.1	£	0.67
CE YEDL	Overhead lines removed (km)	-	3.6	2.9	1.0		7.5
	Expenditure (£m)	-	-	-	-	£	-
WPD S Wales	Overhead lines removed (km)	-	-	-	-		-
	Expenditure (£m)	-	-	-	-	£	-
WPD S West	Overhead lines removed (km)	-	-	-	-		-
	Expenditure (£m)	-	-	-	1.5	£	1.50
EDFE SPN	Overhead lines removed (km)	-	-	0.7	13.5		14.2
	Expenditure (£m)	-	0.2	0.1	0.6	£	0.90
EDFE EPN	Overhead lines removed (km)	-	0.9	4.0	8.9		13.8
	Expenditure (£m)	-	-	-	0.2	£	0.19
SP Distribution	Overhead lines removed (km)	-	-	-	-		-
	Expenditure (£m)	-	0.1	0.8	2.3	£	3.14
SP Manweb	Overhead lines removed (km)	-	-	9.0	5.4		14.4
	Expenditure (£m)	-	-	0.4	1.4	£	1.80
SSE Hydro	Overhead lines removed (km)	-	-	7.0	14.0		21.0
	Expenditure (£m)	-	0.4	1.2	2.3	£	3.90
SSE Southern	Overhead lines removed (km)	-	5.0	8.0	22.0		35.0

Total DNO expenditure (£millions): £ 15.0 Total kilometres removed: 125.0

<sup>&</sup>lt;sup>7</sup> £m expenditure is displayed in 2007/08 prices

<sup>&</sup>lt;sup>8</sup> There is no allowance for EDFE Energy (LPN) as its network is almost entirely underground.

## 8. Ongoing Work

#### **Broad measure**

- 8.1. Ofgem is developing a new measure to better capture the full range of interactions that customers have with DNOs. The scheme will reward or penalise the DNOs according to how they fare on a broad measure of customer satisfaction. The purpose of this is to encourage DNOs to consider all aspects of customer service including stakeholder engagement.
- 8.2. We also want to capture the experience of customer groups such as suppliers (who depend on DNOs for information about changes to use of system charges, for example), those owning distributed generation (DG) and the new players in the market such as Independent Distribution Network Operators (IDNOs) who rely upon connection services from the DNOs.
- 8.3. We will use the first two years of the new price control to pilot the broad measure. After this period, the broad measure will replace the telephony incentive scheme. The survey of customer satisfaction will be conducted quarterly and performance will be assessed on an annual basis. Ofgem will include the results in its new annual report of DNO performance. For more information please see the Final Proposals document Chapter 13 of the Incentives and Obligations (Electricity Distribution Price Control Review Final Proposals Incentives and Obligations).

#### **Customer service reward scheme**

- 8.4. We will retain the existing broad categories of the annual £1 million customer service reward scheme but refocus it within the categories to include communication with worst served customers, ongoing stakeholder consultation and assistance for other categories of customers, such as vulnerable customers. We will also incorporate a requirement for DNOs to meet a given proportion of the best practice that was recognised during DPCR4 as part of the minimum requirements for the DPCR5 scheme.
- 8.5. We recognise that there will be some overlap between this scheme and the broad measure of customer satisfaction so we will streamline this scheme from April 2012 onwards.

## **Guaranteed standards of performance**

8.6. In addition to the amendments to the guaranteed standards of performance that have applied in DPCR4, we have, as part of the DPCR5 review process, introduced new standards of performance relating to connections. The new connections standards are set out in chapter 11 of the Incentives and Obligations<sup>9</sup>

<sup>&</sup>lt;sup>9</sup> Electricity Distribution Price Control Review Final Proposals - Incentives and Obligations

paper as part of DPCR5 final proposals. There are also open letter consultations on the relevant Statutory Instruments that will be made to give force to the new connections standards and the amended DPCR4 standards. The paragraphs below highlight the changes we are making to the quality of service related guaranteed standards.

- 8.7. We have clarified that prior notice of an interruption is required to be given to the affected party by a DNO in respect of planned interruptions under the Regulation 12 of the 2005 Regulations.
- 8.8. We have updated the compensation levels attached to the Standards to take account of inflation over the past four years.
- 8.9. We have updated the thresholds for normal and severe weather conditions and also updated the figures for the upper threshold number of customers.
- 8.10. We have introduced a new Standard for large one-off events, where more than 5,000 customers are interrupted due to the same incident.
- 8.11. We have introduced a new Standard for interruptions due to rota disconnection events and clarified when interruptions due to rota disconnections are to be counted under the multiple interruption Standards.

#### **Worst served customers**

8.12. We will introduce a worst served customer (WSC) fund to encourage DNOs to improve interruptions performance for this group of customers. This will operate as a "use it or lose it" fund and we propose it will be worth £42m across all DNOs over the price control. We currently propose a cap of £1,000 on the amount that can be spent on any individual worst served customer to ensure the benefits of the fund are spread across a number of worst served customers.

## **Interruptions Incentive Scheme ("IIS")**

8.13. We have revised the interruptions incentive scheme (IIS) to better reflect customers' willingness to pay for further service improvements. We have not given DNOs any ex-ante allowances for improvements in interruptions performance.

# **Appendices**

## Index

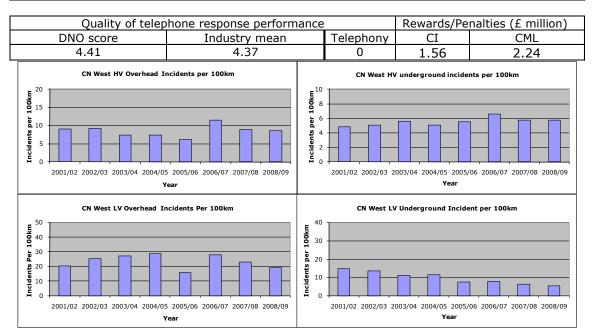
Appendix	Name of Appendix	Page Number
1	DNO Summaries	29
2	Data tables	46
3	2008/09 Customer Interruptions (CIs) and Customer Minutes Lost (CMLs) by Source and by Voltage	53
4	Disaggregation by duration and frequency	55
5	The Authority's Power and Duties	57
6	Glossary	59
7	Feedback questionnaire	60

## Appendix 1 - DNO Summaries

- 1.1. This appendix contains pages on the performance of each of the 14 DNOs. It sets out:
- 2008/09 performance for the number and duration of interruptions;
- 2008/09 targets;
- 2008/09 quality of telephone response performance;
- 2008/09 rewards and penalties
- 2008/09 unplanned performance against benchmarks;
- HV & LV overhead and underground fault rates per 100km of circuits (including exceptional events where they have occurred).
- 1.2. The unplanned performance used in the disaggregation and benchmarking analysis is based on disaggregated performance with a different treatment for exceptional events. Therefore, these figures may differ from performance reported elsewhere.
- 1.3. Due to revised reporting requirements set out in the Quality of Service Regulatory Instructions and Guidance Version 5, DNOs now provide a more detailed breakdown of medium term performance information. To provide a track record of information going forward for assessing reliability, DNOs were required to provide historical information according to the revised classifications for the years 2001/02, 2002/03, 2003/04, 2004/05 with their 2005/06 data submissions. The fault rate charts in this report therefore, cover the years from 2001/02 onwards.
- 1.4. In addition each DNO has provided commentary on its 2008/09 performance.

	CN West - Qualit	v of service and network	performance for 2008/09	•
--	------------------	--------------------------	-------------------------	---

	Incentive Scheme		Disaggregation and benchmarking		
	CI CML		HV unplanned CI	HV unplanned CML	
Performance	92.8 79.3		70.9	51.7	
Target/benchmark	104.6	91.0	60.9	40.5	



### **Commentary provided by CN West**

2008/9 has been a good year for network performance exceeding our IIS network performance targets for both the number of customers interrupted (CI) and the duration of interruption (CML).

As the above graphs show, the incident volumes for our high voltage overhead networks have reduced compared to the previous year, whilst for underground networks we have maintained a similar performance. On our low voltage networks we have seen improvements in both overhead and underground. Central Networks West has continued to install new remote control switching devices on high voltage networks. This enables us to reduce interruption times and direct our field resources more effectively.

More recently Central Networks has developed a replacement control system which will, on completion, be capable of introducing sequence switching which will automatically re-configure the high voltage network and reduce the duration of interruptions.

We have also reviewed our vegetation management strategy which includes a new approach to tree clearance and reactive trimming that is designed to reduce the number of tree related incidents.

Some major events occurred which did not reach exceptional event exclusion thresholds, affecting overall performance. Central Networks continued to mitigate the impact of these events through its effective deployment of resources and its emergency plans.

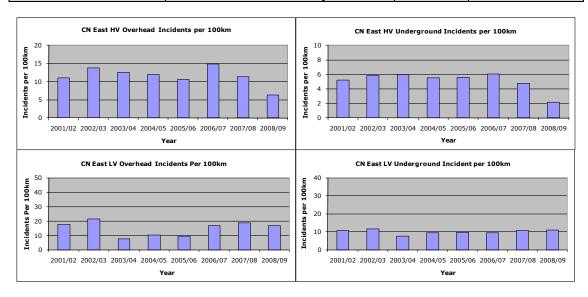
Central Networks has recently entered into an alliance with its major resource providers. The alliance will provide a significant increase in resources available to respond to incidents, whist incorporating industry leading cost & performance drivers.

More detailed information can be found by following <u>this link</u> to the Central Networks website.

#### CN East - Quality of service and network performance for 2008/09

	Incentive Scheme		Disaggregation and benchmarking		
	CI CML		HV unplanned CI	HV unplanned CML	
Performance	68.5	58.4	57.4	42.3	
Target/benchmark	76.7	70.0	51.0	35.3	

	Quality of telephone response performance				nalties (£ million)
	DNO score Industry mean Telephony				CML
4.43 4.37		0	1.47	2.92	



#### **Commentary provided by CN East**

Central Networks continues to focus on improvements in quality of supply, exceeding our 2008/9 IIS network performance targets for both the number of customers interrupted (CI) and duration of interruption (CML).

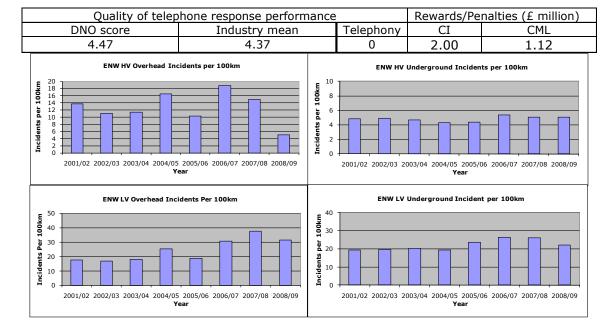
As the reliability graphs above show, there has been a significant reduction in the volumes of incidents on our overhead and underground high voltage networks. On our low voltage networks the number of overhead incidents has reduced whilst the underground networks maintain a good performance. Central Networks East has introduced a new sequence switching scheme which automatically re-configures the high voltage network and restore supplies to customers. This is building on the installation of new switching devices which operate via our remote control communication systems. This reduces the duration of interruptions and enables us to dispatch resources more effectively.

Some major events occurred which did not reach exceptional event exclusion thresholds, affecting overall performance. Central Networks continued to mitigate the impact of these events through its effective deployment of resources and its emergency plans. Central Networks has recently entered into an alliance with its major resource providers. The alliance will provide a significant increase in resources available to respond to incidents, whist incorporating industry leading cost and performance drivers.

More detailed information can be found by following <u>this link</u> to the Central Networks website.

ENW - Quality of service and network performance for 2008/09

	Incentive Scheme		Disaggregation and benchmarking		
	CI CML		HV unplanned CI	HV unplanned CML	
Performance	48.3 50.8		33.2	25.7	
Target/benchmark	57.1	54.7	40.2	27.3	



#### **Commentary provided by Electricity North West**

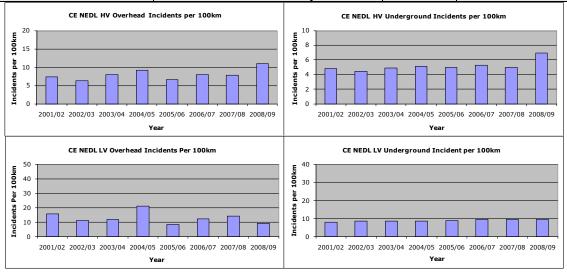
The quality of the supply delivered to customers remains one of ENW's highest priorities and we are therefore delighted to be able to report that we have once again outperformed the targets set by Ofgem in this area. Our position in the upper-quartile of companies for customer service has been achieved following a period of continued targeted investment across a range of initiatives. These include the particularly successful 'Alive in 45' project which attempted to ensure supply restoration within the target time of 45 minutes following the loss, as well as the development of an innovative, integrated automatic supply restoration capability for use across the whole of the higher voltage networks. This sustained level of high performance is particularly satisfying given the significant operational challenges that we have had to face as a business during the last five years as well as the increased volumes of network activity that have been undertaken. As we move into the next price control period we will continue to look to improve wherever possible the quality of supply enjoyed by our customers whilst maintaining a value for money service.

Our telephony performance has continued to improve during 2008/09 and is now one of the best in the country. The High Volume Call Answering system introduced in November 2007 has significantly improved our capacity to deal with large scale interruptions and to improve our general telephone response capability including the ability to speedily contact a customer if an agent is unavailable when the customer originally rings us.

#### CE NEDL - Quality of service and network performance for 2008/09

	Incentive Scheme		Disaggregation and benchmarking		
	CI CML		HV unplanned CI	HV unplanned CML	
Performance	64.2 76.3		45.8	35.6	
Target/benchmark	74.5	68.4	48.2	33.8	

	Quality of telep	Rewards/Pe	nalties (£ million)		
	DNO score Industry mean Tele			CI	CML
Ī	4.46 4.37		0	1.24	-1.33



## **Commentary provided by CE NEDL**

#### **Network Performance in 2008/09**

The NEDL network headline performance was reasonable in 2008/09 and we met the CI unplanned interruption target set by the regulator, driven by a good performance at 132kV and EHV. We also came close to meeting the CML unplanned-interruption performance target despite this being adversely affected by industrial action in the summer months and one particularly bad fault that affected the southeast of County Durham. However, the additional planned interruptions we have to undertake to meet the improved tree clearances required by ESQCR have adversely affected the overall performance, particularly on CML, as shown in the above tables.

There were no major storms in 2008/09 and this is reflected in the good overhead-line fault rates shown in the graphs for the year. Cables, except in the case of extreme flooding, are less affected by weather conditions and for NEDL fault rates are continuing to move in a narrow band. There were two notable events in the year. The first was a very short-term national generation shortage that occurred on 27 May. This interrupted the supplies to over 150,000 customers for periods between 30 seconds and one hour. The second event affected supplies to 4,500 customers in the southeast corner of County Durham. Multiple simultaneous faults affected the high-voltage supplies to this area, requiring major repairs to be completed before supplies could be restored.

#### **Benchmark Performance**

An analysis of the benchmarking scheme so far has indicated that there are some weaknesses with this process and we have been discussing improvements with the regulator that will more accurately reflect the real position.

Improvement Initiatives

We are now coming towards the end of our investment programmes to expand remote control on the HV distribution network. We have already covered the locations that will enable us to restore supplies to the largest numbers of customers and further expansion is currently being reviewed based on the economic incentive rates proposed by Ofgem for DPCR5. For the next five years we are proposing to invest further in programmes aimed at improving our customers-per-fault performance on our overhead-line network and improving the small pockets of the network that have the worst reliability.

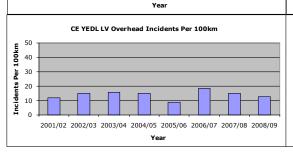
#### **Telephone Response**

NEDL continues to have an above-average performance in this vital area of customer service. We have now installed a replacement telephone system that both increases the number of connections into our call centre and takes advantage of the latest developments in automatic messaging. We expect to see the undoubted improvement in service that this development is now delivering reflected in future performance figures.

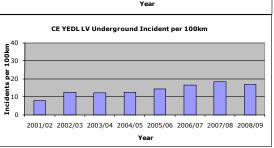
#### CE YEDL - Quality of service and network performance for 2008/09

	Incentive Scheme		Disaggregation and benchmarking		
	CI CML		HV unplanned CI	HV unplanned CML	
Performance	76.4 73.0		52.3	39.5	
Target/benchmark	68.5	63.4	41.4	28.8	

Quality of telephone response perform				Rewards/Pe	nalties (£ million)
DNO score Industry mean			Telephony	CI	CML
4.41 4.37			0	-1.33	-2.19
CE YEDL HV Overhead Incidents per 100km		CE YEDL HV underground Incidents per 100km			ts per 100km
E 20 10 15 5 10 10 10 10 10 10 10 10 10 10 10 10 10		Incidents per 100km 8 8 4 2 0			



2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09



2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09

#### **Commentary provided by CE YEDL**

#### **Network Performance in 2008/09**

Headline performance in YEDL was disappointing during 2008/09 and we failed to meet the CI and CML unplanned targets set by the regulator. Poor EHV performance, combined with some challenging periods of adverse weather, has contributed to the underperformance. Although in historical terms the YEDL network is performing well, we are concerned about the unplanned performance relative to the targets set by the regulator.

We continue to monitor closely the performance of the HV and LV underground networks, areas where it is uneconomic to effect real improvements. However, despite the period of industrial action we experienced during the summer we are pleased that, on restoration speed, YEDL has continued its upper-quartile performance over DPCR4. A further factor that is adversely affecting the incentivised performance is the additional planned interruptions we have to undertake to meet the improved tree clearances required by ESQCR. Benchmark Performance. An analysis of the benchmarking scheme so far has indicated that there are some weaknesses with this process and we have been discussing improvements with the regulator that will more accurately reflect the real position.

#### **Improvement Initiatives**

We are now coming towards the end of our investment programmes to expand remote control on the HV distribution network. We have already covered the locations that will enable us to restore supplies to the largest numbers of customers and further expansion is currently being reviewed based on the economic incentive rates proposed by Ofgem for DPCR5. For the next five years we are proposing to invest further in programmes aimed at improving our customers-per-fault performance on our overhead-line network and improving the small pockets of the network that have the worst reliability.

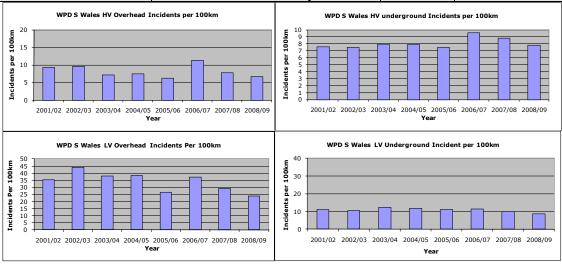
# **Telephone Response**

YEDL continues to have an above-average performance in this vital area of customer service. We have now installed a replacement telephone system that both increases the number of connections into our call centre and takes advantage of the latest developments in automatic messaging. We expect to see the undoubted improvement in service that this development is now delivering reflected in future performance figures.

# WPD S Wales - Quality of service and network performance for 2008/09

	Incentive Scheme		Disaggregation and benchmarking	
	CI CML		HV unplanned CI	HV unplanned CML
Performance	66.1	36.8	62.4	27.6
Target/benchmark	95.3	72.2	55.4	40.7

	Quality of telep	Rewards/Pe	nalties (£ million)		
DNO score Industry mean Tel			Telephony	CI	CML
ĺ	4.57	4.37	0.08	2.08	3.12



### Commentary provided by WPD S Wales

Western Power Distribution (WPD) South Wales delivers electricity supplies to customers in the south west of Wales including Cardiff and Swansea, the south Wales valleys, Carmarthenshire, Pembrokeshire and parts of Ceredigion in west Wales and Powys in mid Wales.

### **Network Performance**

In 2008/09 our performance was 66.1 interruptions per 100 connected customers (CI) and 36.8 customer minutes lost (CML) per connected customer. The company outperformed Ofgem's 2008/09 targets for both customer interruptions and customer minutes by 31% and 49% respectively. The most significant event was caused by high winds across the South Wales region which occurred at the end of May 2008 causing loss of supply to over 32,000 customers. Ofgem have verified that we had taken all reasonably practicable steps to safeguard our overhead line network and that we did all we could in response to these events to restore customers in an efficient and effective manner. The impact of these events is therefore excluded from our IIS performance.

Much of our continued improvement has been due to our focus on operational response via our "Target 60" initiative to restore customers within one hour of a fault occurring, together with the delivery of an investment programme targeted at reducing the impact of HV faults through the use of remote control and automation technology. The latter has enabled us to restore supplies within three minutes on those circuits where automation has been commissioned.

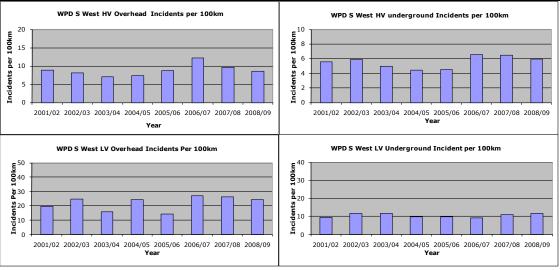
#### **Quality of Telephone Response**

We are proud that WPD has maintained its high score in quality of telephone response surveys. Our initiative to proactively contact customers to offer advice during an outage has been well received and using this together with other direct feedback has enabled us to introduce further initiatives that will hopefully further improve our performance in this area.

### WPD S West - Quality of service and network performance for 2008/09

	Incentive Scheme		Disaggregation and benchmarking	
	CI	CML	HV unplanned CI	HV unplanned CML
Performance	58.4	43.9	46.5	24.2
Target/benchmark	84.5	62.2	53.1	41.3

WPD S West HV Overhead Incidents per 100km		WPD S West	HV underground Inci	dents per 100km
4.51	4.37	0.10	2.52	3.78
DNO score Industry mean		Telephony	CI	CML
Quality of telephone response performance			Rewards/Pe	nalties (£ million)



#### Commentary provided by WPD S West

Western Power Distribution (WPD) South West delivers electricity supplies to customers in the south west of England incorporating the major towns and cites of Bristol, Taunton, Exeter and Plymouth. We serve all of the counties of Somerset, Devon and Cornwall and parts of Dorset and south Gloucestershire.

# **Network Performance**

In 2008/09 our performance was 58.4 interruptions per 100 connected customers (CI) and 43.9 customer minutes lost (CML) per connected customer. The company outperformed Ofgem's 2008/09 targets for both customer interruptions and customer minutes by 31% and 29% respectively. There was one exceptional event reported to Ofgem during the year associated with the snow, ice and blizzards that affected much of the UK during February 2009. The South West was particularly badly affected causing loss of supply to almost 45,000 customers. Ofgem have verified that we had taken all reasonably practicable steps to safeguard our overhead line network and that we did all we could in response to these events to restore customers in an efficient and effective manner. The impact of these events is therefore excluded from our IIS performance.

Much of our continued improvement has been due to our focus on operational response via our "Target 60" initiative to restore customers within one hour of a fault occurring together with the delivery of an investment programme targeted at reducing the impact of HV faults through the use of remote control and automation technology. The latter has enabled us to restore supplies within three minutes on those circuits where automation has been commissioned.

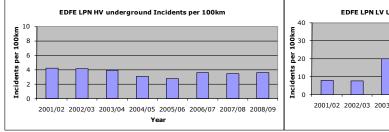
#### **Quality of Telephone Response**

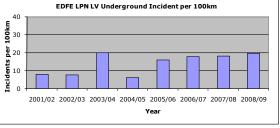
We are proud that WPD has maintained its high score in quality of telephone response surveys which is an important area of customer service.

# EDFE LPN - Quality of service and network performance for 2008/09

	Incentive Scheme		Disaggregation and benchmarking	
	CI CML		HV unplanned CI	HV unplanned CML
Performance	28.7	44.2	16.2	10.0
Target/benchmark	36.2	40.1	21.7	12.2

Quality of telep	Rewards/Pe	nalties (£ million)		
DNO score	Industry mean	Telephony	CI	CML
3.98	4.37	-0.15	2.79	-1.72





# Commentary provided by EDFE LPN

We are pleased to report that customers in EDF Energy Networks (LPN) plc's distribution area continue to enjoy the most secure electricity supplies in the country, and have seen a significant improvement in customer interruption over last year. With performance for 2008/09 being 28.7 interruptions per 100 connected customers (CI) and 44.2 customer minutes lost (CML) – meeting Ofgem's CI targets and just missing CML target for the year.

In order to maintain the improvements in network performance achieved last year through our highly successful HV automation programme we continued to look for ways to improve it performance. Currently we have circa 950 HV feeders automated resulting in a saving on average 10 CI and 10 CML per year.

In 2008/09 EDF Energy Networks continued its work to improve the service it provides to vulnerable customers and for a second year in a row, this was recognised by Ofgem when EDF Energy Networks was rewarded under Ofgem's 2008/09 discretionary reward scheme.

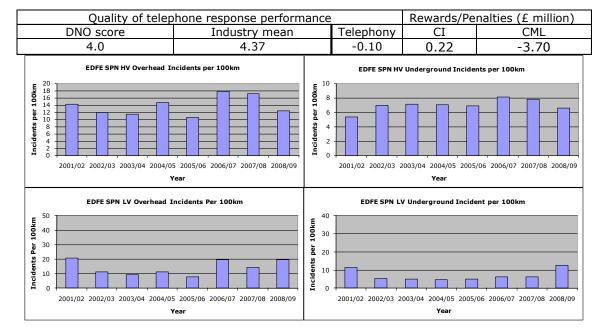
In order for LPN to continue to meet its quality of supply targets set for 2005/10 we will:

Deliver improved performance to HV remote control and automation.

Improve the performance of our LV network through the improvement of operational performance.

### EDFE SPN - Quality of service and network performance for 2008/09

	Incentive Scheme		Disaggregation and benchmarking	
	CI CML		HV unplanned CI	HV unplanned CML
Performance	82.7	99.8	65.8	61.9
Target/benchmark	84.5	68.2	58.2	37.4



#### Commentary provided by EDFE SPN

We are pleased to report that customers in EDF Energy Networks (SPN) plc's distribution area continue to enjoy a good quality of supply, despite a year where a number of non-excluded weather events had a detrimental effect on network performance measures. With performance for 2008/09 being 82.7 interruptions per 100 connected customers (CI) and 99.8.7 customer minutes lost (CML) – achieving Ofgem's CI target but missing the CML targets.

In 2008/09 we continue to implementation of our highly successful High Voltage (HV) automation programme and currently we have circa 750 HV feeders automated resulting in a saving on average of 4 CI and 4 CML.

In 2008/09 EDF Energy Networks continued its work to improve the service it provides to vulnerable customers and for a second year in a row, this was recognised by Ofgem when EDF Energy Networks was rewarded under Ofgem's 2008/09 discretionary reward scheme. In order for SPN to continue to meet its challenging quality of supply targets set for 2005/10, particularly with respect to CML's. We are implementing a number of performance improvement initiatives, including continuing to deliver and further improve the performance of remote control and automation on HV networks and improvements in operational response to network incidence.

### EDFE EPN - Quality of service and network performance for 2008/09

	Incentive Scheme		Disaggregation and benchmarking	
	CI CML		HV unplanned CI	HV unplanned CML
Performance	84.8	88.3	51.8	43.7
Target/benchmark	85.7	69.1	53.5	37.9

Quality of telephone response performance				Damerda/Da	maltina (C. mailliam)
		ance			nalties (£ million)
DNO score	Industry mean		Telephony	CI	CML
4.19	4.37		0	0.17	-5.76
EDFE EPN HV Overhead Incidents per 100km			EDFE EPN H	/ Underground Incid	ents per 100km
20 15 10 2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09 Year			8 8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		
EDFE EPN LV Overhead Inc	idents Per 100km		EDFE EPN LV	/ Underground Incide	ent per 100km
Day 102 3001/03 2003/04 2004/05	2005/06 2006/07 2007/08 2008/09	Incidents per 100km 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2001/02 2002/03 2	003/04 2004/05 2005	/06 2006/07 2007/08 2008/09

#### Commentary provided by EDFE EPN

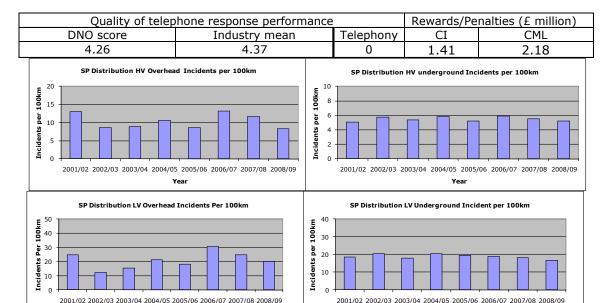
We are pleased to report that customers in EDF Energy Networks (EPN) plc's distribution area continue to enjoy a good quality of supply, despite a year where a number of non-excluded weather events had a detrimental effect on network performance measures. With performance for 2008/09 being 84.8 interruptions per 100 connected customers (CI) and 88.3 customer minutes lost (CML) - achieving Ofgem's CI target but missing the CML target.

In 2008/09 we continue to improve the performance of our highly successful High Voltage (HV) automation programme and currently we have circa 1800 HV feeders automated resulting in a saving on average of 11 CI and 11 CML. This year customers have also benefited from the improved restoration performance remote control and automation brings during severe weather events. With customers experiencing supply restoration performance during severe weather of 90% of customers are restored within three hours.

In 2008/09 EDF Energy Networks continued its work to improve the service it provides to vulnerable customers. For a third year, this area of work was recognised by Ofgem when EDF Energy Networks was rewarded under Ofgem's 2008/09 discretionary reward scheme. In order to continue to meet our quality of supply targets set for 2005/10 we will be implementing a number of performance improvement initiatives, including; Further improve the performance of remote control and automation on HV networks and improvements in operational response to network incidence.

# SPD - Quality of service and network performance for 2008/09

	Incentive Scheme		Disaggregation and benchmarking	
	CI CML		HV unplanned CI	HV unplanned CML
Performance	55.7	48.5	38.9	38.7
Target/benchmark	60.8	54.0	42.8	30.8



#### **Commentary provided by SP Distribution**

SP Distribution, part of the ScottishPower Group, owns the distribution network, which supplies electricity to over 1,990,000 customers in Southern and Central Scotland. The area comprises contrasting environments from the heavily populated areas of the Clyde and Forth valleys to the exposed, sparsely populated areas of the Borders and Dumfries and Galloway.

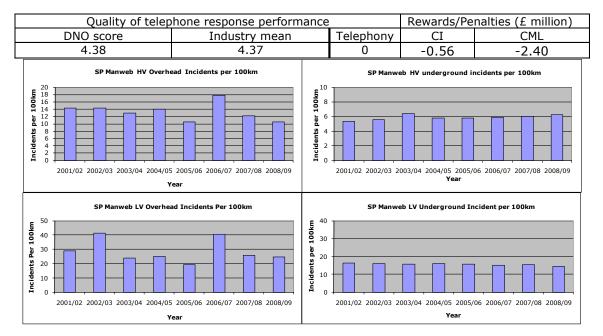
2008/09 demonstrated a continued improvement in performance from the previous year, with both the number of interruptions and, the average interruption duration improving. This improvement was achieved by a combination of continuing operational focus through zonal working, and system investments with the continued installation of remote controllable technology across the network. During 2008/09 we were fortunate that while poor weather occurred on a number of occasions we experienced no severe weather events.

The figures in the table 'disaggregation and benchmarking' above reflect 4-year average values for HV unplanned CI and CML performance against benchmarks. We are pleased that in 2008/09 our actual performance for both HV CI and HV CML significantly outperformed against the respective benchmarks and reflects the improvements we have achieved in our underlying performance over recent years.

We also recognise the importance of good communication with our customers and we maintain a continued focus on improvements to our Telephony response performance which is evidenced by the year-on-year improvements in our overall score. At the same time we continue to seek opportunities to provide further improvements in this important area of our operations.

SPM - Quality of service and network performance for 2008/09

	Incentive Scheme		Disaggregation and benchmarking	
	CI	CML	HV unplanned CI	HV unplanned CML
Performance	49.3	54.8	28.7	34.0
Target/benchmark	46.7	46.1	46.9	33.1



# Commentary provided by SP Manweb

SP Manweb, part of the ScottishPower Group, owns the distribution network, which supplies electricity to over 1,480,000 customers in Merseyside, north and mid Wales and parts of Cheshire, Shropshire and Staffordshire. The area comprises contrasting environments from the heavily populated area of Merseyside to the exposed, sparsely populated areas of Wales.

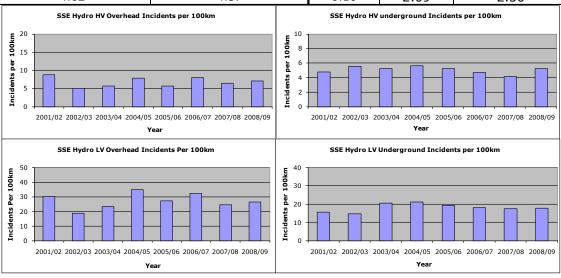
During 2008/09 our customers were adversely affected by two significant events. On 13 November 2008 the failure of a 132kV circuit breaker at our Rainhill substation resulted in over 120 thousand customers experiencing a supply interruption that lasted for up to 38 minutes, resulting in a £2.4M financial penalty on our business, and on 22-23 June 2008 we experienced high winds gusting to over 60mph which resulted in over 21 thousand customers being affected with a small number of customers being without supply for over 24 hours. Without the one exceptional event our 2008/09 performance continued the underlying improvement in performance from the previous year, with both the number of interruptions and, the average interruption duration improving. This improvement has been achieved by a combination of continuing operational focus through zonal working, and system investments with the continued installation of remote controllable technology across the network.

The figures in the table 'disaggregation and benchmarking' above reflect 4-year average values for HV unplanned CI & CML performance & benchmarks. We are pleased that in 2008/09 our actual performance for both HV CI & HV CML outperformed against the respective benchmarks and reflects the improvements we have achieved in our underlying performance over recent years. We also recognise the importance of good communication with our customers and we maintain a continued focus on improvements to our Telephony response performance which is evidenced by the year-on-year improvements in our overall score. At the same time we continue to seek opportunities to provide further improvements in this important area of our operations.

SHEPD - Quality of service and network performance for 2008/09

	Incentive Scheme		Disaggregation and benchmarking	
	CI CML		HV unplanned CI	HV unplanned CML
Performance	75.8	75.1	42.3	39.3
Target/benchmark	95.2	93.0	55.4	47.9

Quality of telep	Rewards/Penalties (£ million)			
DNO score	Industry mean	Telephony	CI	CML
4.62	4.37	0.10	2.09	2.36



# Commentary provided by SSE Hydro

Scottish Hydro Electric Power Distribution [SHEPD] delivers electricity to customers in the north of Scotland, including the Western and Northern Isles, and some of the remotest areas in the country. Our territory covers 25% of the UK land mass and includes the major conurbations of Aberdeen, Inverness, Dundee and Perth.

The 'Hydro' system continues to perform extremely well returning another excellent performance in 2008/09 and demonstrating our effective operating procedures and contingency plans, supported by the money we invested in the system. We achieved this outstanding performance despite a number of damaging winter weather events bringing heavy snow falls and hurricane force winds, leading on three occasions to exceptional events.

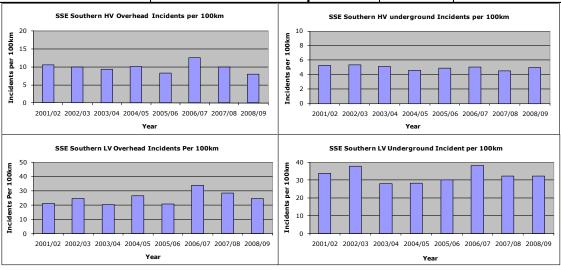
In the year we continued to refurbish our overhead line network and installed more system automation. These actions improve general network resilience, reduce the number of customers affected by faults, and also reduce the duration of supply loss. A high proportion of our network now has the benefit of remotely controlled circuit breakers and switches, which enable blocks of customers to be restored more quickly. Our equipment fault rates continue to remain stable over time as we ensure proper long term stewardship of our network.

'Hydro' continues to lead in the quality of telephone response surveys and we were pleased to receive a reward for the quality of our telephony service. Our customer facing Emergency Service Centre team are proud that their commitment and effort to be the best has been recognised as they continue to deliver the highest level of customer service.

# SEPD Quality of service and network performance for 2008/09

	Incentive S	cheme	Disaggregation and benchmarking				
	CI	CML	HV unplanned CI	HV unplanned CML			
Performance	64.3	65.6	48.1	37.1			
Target/benchmark	88.3	77.4	47.7	33.3			

Quality of telep	Rewards/Penalties (£ million)			
DNO score	Industry mean	Telephony	CI	CML
4.42	4.37	0	4.83	3.82



#### **Commentary provided by SSE Southern**

Southern Electric Power Distribution [SEPD] delivers electricity to customers in central southern England, from remote rural communities in Dorset, Wiltshire, Gloucestershire and Oxfordshire to dense conurbations including West London, Slough, Reading, Portsmouth, Southampton, Swindon, and Bournemouth.

The 'Southern' system performance in 2008/09 was once again the best ever, with reductions in both the number of interruptions experienced by customers and the duration of those interruptions. This excellent performance was largely due to our effective operating procedures and the money we have invested in the system over the past number of years.

During the year we continued to target investment on our network to deliver improvements on our overhead lines, underground cables and plant. These actions have contributed to the reduction in customers interrupted and customer minutes lost. A high proportion of our network now also has the benefit of remotely controlled circuit breakers and switches, which enable blocks of customers to be restored more quickly.

Our equipment fault rates continue to remain stable over time as we ensure proper long term stewardship of our network.

# Appendix 2 - Data Tables

- Table A2.1: Reported & Revised 2008/09 Customer Interruptions and Customer Minutes Lost
- A2.2: Short Interruptions
- Table A2.3: Revised 2008/09 Customer Interruptions and Customer Minutes Lost: Split by Source
- Table A2.4: Revised 2008/09 Customer Interruptions and Customer Minutes Lost: Split by Voltage Level
- Table A2.5: Incentive Scheme: 2008/09 Customer Interruptions and Customer Minutes Lost as a Percentage of Respective 2008/09 Targets
- Table A2.6: Distribution Network Operators Information 2008/09

Table A2.1: Reported & Revised 2008/09 Customer Interruptions and Customer Minutes Lost

	Reported	Overall accuracy	Revised	Reported	Overall accuracy	Revised
DNO	2008/09 Cls	adjustment	2008/09 Cls	2008/09 CMLs	adjustment	2008/09 CMLs
CN West	101.36	0.00%	101.36	94.89	0.00%	94.89
CN East	70.89	0.00%	70.89	64.09	0.00%	64.09
ENW	50.96	0.00%	50.96	57.76	0.00%	57.76
CE NEDL	71.80	0.00%	71.80	87.20	0.00%	87.20
CE YEDL	83.72	0.00%	83.72	80.64	0.00%	80.64
WPD S Wales	71.98	0.00%	71.98	43.79	0.00%	43.79
WPD S West	63.96	0.00%	63.96	57.53	0.00%	57.53
EDFE LPN	33.27	0.00%	33.27	45.60	0.00%	45.60
EDFE SPN	86.75	0.00%	86.75	107.12	0.00%	107.12
EDFE EPN	91.48	0.00%	91.48	100.89	0.00%	100.89
SP Distribution	68.17	0.00%	68.17	57.23	0.00%	57.23
SP Manweb	53.72	0.00%	53.72	65.20	0.00%	65.20
SSE Hydro	106.35	0.00%	106.35	119.34	0.00%	119.34
SSE Southern	67.45	0.00%	67.45	71.49	0.00%	71.49
Great Britain			72.86			75.69

Note: The figures in this table do not exclude exceptional events, the adjusted incentive scheme figures are shown in Table A2.5

# **Table A2.2 Short Interruptions 2008/09**

Short interruptions by "causes" (including LV)	GB Average	CN West	CN East	ENW	CE NEDL	CE YEDL	WPD S Wales	WPD S West	EDFE LPN	EDFE SPN	EDFE EPN	SP Distribution	SP Manweb	SSE Hydro	SSE Southern
Automatic operation and restored by automatic switching	19,517,468	1,388,697	1,279,227	878,452	819,515	1,300,048	1,579,867	2,247,403	157,670	742,168	2,707,972	657,577	1,208,056	2,360,750	2,190,066
Automatic operation and restored by manual or remote switching	1,567,752	417,521	162,564	7,477	94,288	57,855	85,499	104,599	117,034	-	263,882	28,812	11,730	3,793	212,698
Manual or remote operation	1,397,948	256,840	156,002	22,076	78,743	68,341	160,113	145,699	86,432	6,739	80,702	199,213	58,551	11,767	66,730
Operation of switchgear on other connected systems	150,401	-	-	-	-	-	-	-	-	-	-	31,775	27,738	90,888	-
Total	22,633,569	2,063,058	1,597,793	908,005	992,546	1,426,244	1,825,479	2,497,701	361,136	748,907	3,052,556	917,377	1,306,075	2,467,198	2,469,494
Short interruptions per 100 connected customers															
Automatic operation and restored by automatic switching	68	57	49	37	52	58	145	148	7	33	77	33	81	324	75
Automatic operation and restored by manual or remote switching	5	17	6	0	6	3	8	7	5	0	8	1	1	1	7
Manual or remote operation	5	11	6	1	5	3	15	10	4	0	2	10	4	2	2
Operation of switchgear on other connected systems	1	0	0	0	0	0	0	0	0	0	0	2	2	12	0
Total	78	85	62	39	63	63	168	164	16	34	87	46	88	338	85

Table A2.3: Revised 2008/09 Customer Interruptions and Customer Minutes Lost: Split by Source

	CN West	CN Fast	ENW	CE NEDI	CE YEDI	WPD S Wales	WPD S West	EDEE I PN	EDEE SPN	EDEE EPN	SP Distribution	SP Manweh	SSE Hydro	SSE Southern	GB Total
Customer numbers 2008/09	2435566		2356612		2247727	1088889	1520440		2229279		1991331	1482550	729290	2905434	28867001
Number															
Unplanned interruptions (000's)	2,261	1,714	1,102	943	1,712	717	891	625	1,786	2,941	1,084	715	580	1,826	18,897
Pre-arranged interruptions (000's)	208	123	99	127	78	63	81	27	113	203	49	73	89	132	1,466
Incidents on National Grid Company or Transmission Companies (000's)	0	0	0	56	92	0	0	88	34	53	224	8	97	1	654
Incidents on distributed generators (000's)	0	0	0	0	0	3	0	0	1	1	0	0	5	0	10
Incidents on any other connected systems (000's)	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6
Total (000's)	2,469	1,837	1,201	1,126	1,882	784	972	740	1,934	3,198	1,357	796	776	1,960	21,032
Cls	101.36	70.89	50.96	71.80	83.72	71.98	63.96	33.27	86.75	91.48	68.17	53.72	106.35	67.45	72.86
Duration															
Unplanned interruptions (000's)	177,326	136,473	106,104	103,660	156,884	38,183	69,589	95,719	206,293	293,322	90,590	75,753	58,854	173,412	1,782,163
Pre-arranged interruptions (000's)	53,774	29,617	30,006	31,783	21,127	9,454	17,883	5,115	32,078	58,897	9,139	20,508	20,588	34,287	374,257
Incidents on National Grid Company or Transmission Companies (000's)	0	0	0	1,335	3,251	0	0	566	413	335	14,244	394	6,892	12	27,444
Incidents on distributed generators (000's)	0	0	0	0	0	46	0	0	7	189	0	7	30	0	279
Incidents on any other connected systems (000's)	0	0	17	0	0	2	0	0	0	0	0	0	670	0	689
Total (000's)	231,100	166,090	136,128	136,779	181,263	47,684	87,472	101,400	238,792	352,743	113,973	96,663	87,034	207,712	2,184,833
CMLs	94.89	64.09	57.76	87.20	80.64	43.79	57.53	45.60	107.12	100.89	57.23	65.20	119.34	71.49	75.69

Note: Figures may differ slightly due to rounding

Note: The figures in this table do not exclude exceptional events, the adjusted incentive scheme figures are shown in Table A2.5

Table A2.4: Revised 2008/09 Customer Interruptions and Customer Minutes Lost: Split by Voltage Level

	CN West	CN East	ENW	CE NEDL	CE YEDL	WPD S Wales	WPD S West	EDFE LPN	EDFE SPN	EDFE EPN	SP Distribution	SP Manweb	SSE Hydro	SSE Southern		GB Total
Customer Numbers	2,435,566	2,591,542	2,356,612	1,568,612	2,247,727	1,088,889	1,520,440	2,223,548	2,229,279	3,496,181	1,991,331	1,482,550	729,290	2,905,434		28,867,001
Sum of number of Customers Interrupted																
132 kV (000's)	67	0	59	4	55	0	0	0	0	157	0	124	0	0		466
EHV (000's)	174	85	44	12	72	40	86	21	95	327	225	59	162	188		1,590
HV (000's)	1,914	1,535	863	787	1,311	657	686	344	1,645	2,277	743	497	441	1,371		15,072
LV (000's)	246	196	225	235	274	69	181	198	136	326	137	91	51	363		2,728
LV Services (000's)	67	21	10	32	78	14	20	88	23	57	28	17	14	37		506
Incidents on National Grid Company or Transmission Companies (000's)	0	0	0	56	92	0	0	88	34	53	224	8	97	1		654
Incidents on embedded generators (000's)	0	0	0	0	0	3	0	0	1	1	0	0	5	0		10
Incidents on any other connected systems (000's)	0	0	0	0	0	0	0	0	0	0	0	0	6	0		6
Total (000's)	2,469	1,837	1,201	1,126	1,882	784	972	740	1,934	3,198	1,357	796	776	1,960		21,032
Cls	101.36	70.89	50.96	71.80	83.72	71.98	63.96	33.27	86.75	91.48	68.17	53.72	106.35	67.45	-	72.86
Sum of customer minutes lost																
132 kV (000's)	2,204	0	1,269	86	341	0	0	0	0	6,452	0	3,780	0	0		14,132
EHV (000's)	2,439	1,236	333	145	1,912	1,058	849	415	7,140	13,894	6,885	1,731	11,795	3,581		53,411
HV (000's)	161,656	120,684	85,433	74,682	106,294	34,594	52,080	21,337	171,982	245,734	60,999	64,906	57,441	117,293		1,375,115
LV (000's)	55,407	40,961	47,326	56,462	59,345	10,584	32,095	57,422	52,046	78,443	26,739	21,484	8,871	81,207		628,391
LV Services (000's)	9,395	3,208	1,750	4,068	10,120	1,401	2,448	21,660	7,204	7,695	5,106	4,361	1,336	5,618		85,370
Incidents on National Grid Company or Transmission Companies (000's)	0	0	0	1,335	3,251	0	0	566	413	335	14,244	394	6,892	12		27,444
Incidents on embedded generators (000's)	0	0	0	0	0	46	0	0	7	189	0	7	30	0		279
Incidents on any other connected systems (000's)	0	0	17	0	0	2	0	0	0	0	0	0	670	0		689
Total (000's)	231,100	166,090	136,128	136,779	181,263	47,684	87,472	101,400	238,792	352,743	113,973	96,663	87,034	207,712		2,184,833
CMLs	94.89	64.09	57.76	87.20	80.64	43.79	57.53	45.60	107.12	100.89	57.23	65.20	119.34	71.49		75.69

Note: Figures may differ slightly due to rounding

Note: The 132kV network in Scotland forms part of the Transmission system

Table A2.5: Incentive Scheme - 2008/09 Customer Interruptions & Customer Minutes Lost as a Percentage of Respective 2008/09 Targets

DNO	2008/09 CI Target		2008/09 Incentive Scheme Cls as % of 2008/09 Target	2008/09 CML Target	2008/09 Incentive Scheme CMLs	2008/09 Incentive Scheme CMLs as a % of 2008/09 Target
CN West*	104.6	92.8	89	91.0	79.3	87
CN East	76.7	68.5	89	70.0	58.4	83
ENW*	57.1	48.3	85	54.7	50.8	93
CE NEDL	74.5	64.2	86	68.4	76.3	112
CE YEDL*	68.5	76.4	112	63.4	73.0	115
WPD S Wales*	95.3	66.1	69	72.2	36.8	51
WPD S West*	84.5	58.4	69	62.2	43.9	71
EDFE LPN	36.2	28.7	79	40.1	44.2	110
EDFE SPN	84.5	82.7	98	68.2	99.8	146
EDFE EPN*	85.7	84.8	99	69.1	88.3	128
SP Distribution	60.8	55.7	92	54.0	48.5	90
SP Manweb*	46.7	49.3	106	46.1	54.8	119
SSE Hydro*	95.2	75.8	80	93.0	75.1	81
SSE Southern*	88.3	64.3	73	 77.4	65.6	85
GB average		66.6			66.1	

\*Note: CN West's 2008/09 Cl and CML figures were reduced as a result of 2 exceptional events ENW's 2008/09 Cl and CML figures were reduced as a result of 1 exceptional event CE YEDL's 2008/09 Cl and CML figures were reduced as a result of 1 exceptional event WPD S West's 2008/09 Cl and CML figures were reduced as a result of 1 exceptional event WPD S Wales 2008/09 Cl and CML figures were reduced as a result of 1 exceptional event

EDF Energy EPN's 2008/09 Cl and CML figures were reduced as a result of 1 exceptional event SP Manweb's 2008/09 Cl and CML figures were reduced as a result of exceptional event SSE Hydro's 2008/09 Cl and CML figures were reduced as a result of 3 exceptional events SSE Southern's 2008/09 Cl figure was reduced as a result of 1 exceptional event

Table A2.6: Distribution Network Operator Information 2008/09

									Length o	f circuit km		
DNO	Total No of	132kV			6	6kV	33kV			2:	ŀ	
DNO	Customers	Overhead	Underground	Submarine cables	Overhead	Underground	Overhead	Underground	Submarine cables	Overhead	Underground	Overhead
CN West	2,435,566	1,367	327	0	789	26	1,021	364	0	0	0	14,536
CN East	2,591,542	2,384	207	0	0	0	2,624	1,769	0	0	0	12,547
ENW	2,356,612	1,582	356	0	0	0	1,363	2,208	0	0	0	7,810
CE NEDL	1,568,612	606	90	0	1,009	449	356	488	0	5,095	1,485	5,262
CE YEDL	2,247,727	1,064	203	0	846	105	1,251	1,373	0	0	0	8,672
WPD S Wales	1,088,889	1,180	93	0	350	8	1,229	395	1	0	0	12,202
WPD S West	1,520,440	1,432	73	0	0	0	2,911	859	66	0	0	16,570
EDFE LPN	2,223,548	15	469	0	15	428	0	841	0	0	1	0
EDFE SPN	2,229,279	1,161	353	0	0	0	1,313	1,320	0	0	0	5,662
EDFE EPN	3,496,181	2,545	242	0	0	0	3,479	2,302	0	0	0	19,220
SP Distribution	1,991,331	0	0	0	0	0	2,687	2,996	0	0	0	14,073
SP Manweb	1,482,550	1,224	230	0	0	0	1,976	1,684	0	0	0	12,636
SSE Hydro	729,290	0	0	0	0	0	5,405	879	303	0	0	21,723
SSE Southern	2,905,434	1,914	470	12	6	189	3,516	2,194	14	0	0	13,110
Great Britain	28,867,001	16,474	3,114	12	3,014	1,205	29,131	19,672	384	5,095	1,486	164,023

Note: The 132kV network in Scotland forms part of the Transmission system

# Appendix 3 – 2008/09 Customer Interruptions (CIs) and Customer Minutes Lost (CMLs) by Source and by Voltage

- 1.1. The number and duration of interruptions to supply can be broken down into the following five categories:
- unplanned interruptions arising on the DNO's own network;
- pre-arranged interruptions on the DNO's network;
- interruptions arising on the National Grid Company's system or the Transmission Companies' systems (in Scotland);
- interruptions arising from generators connected to the distribution network; and
- interruptions on any other connected systems.
- 1.2. Unplanned interruptions are caused by many factors, such as;
- failure of equipment
- lightning hitting lines and damaging equipment;
- high winds blowing over poles and bringing power lines down;
- strikes by large wildfowl; and
- third party activity such as workers accidentally severing power cables.
- 1.3. Planned interruptions relate to the temporary suspension of supply for reasons such as carrying out repairs, maintenance and construction. Customers are required to be given two days notice prior to the start of such work. Industry working practices and techniques, such as "hot-glove" working and the use of mobile generators are reducing the need to interrupt supplies to carry out repairs. Incidents on the National Grid Company or Transmission Companies are generally rare, but due to the voltages involved, when they do occur the affect large numbers of customers.
- 1.4. Unplanned interruptions account for the bulk of customer minutes lost, with 12 DNOs having over 80 per cent of their minutes lost being due to this source. Within the remaining categories, planned work can be seen to be more significant in terms of customer minutes lost than it was in terms of customers interrupted.
- 1.5. The number and duration of interruptions can also be disaggregated by the voltage level at which they occurred. The voltage levels are classified as follows:
- 132kV
- Extra High Voltage (EHV) voltages greater than 20kV but less than 132kV;

- High Voltage (HV) voltages from 1kV up to 20kV;
- Low Voltage (LV) voltages less than 1kV; and
- LV Services the service line connecting the electricity main to the distribution company's protection device situated upon the customer's premises.

Figure A3.1 Great Britain Average: 2008/09 Proportion of Customer Interruptions by Voltage

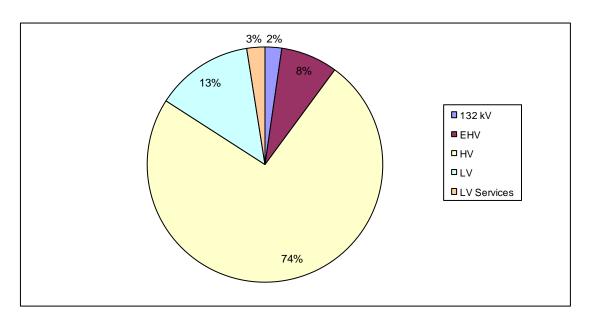
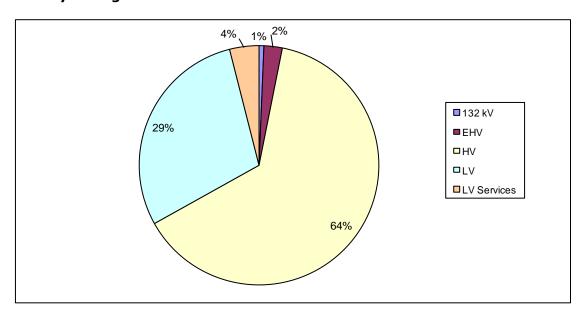


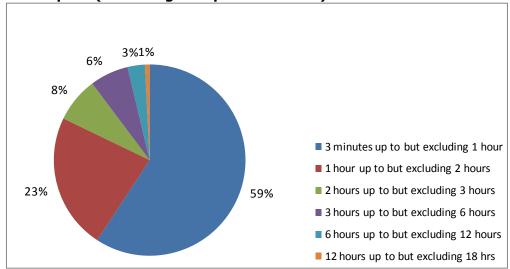
Figure A3.2 Great Britain Average: 2008/09 Proportion of Customer Minutes Lost by Voltage



# Appendix 4 - Disaggregation by Duration and Frequency Band

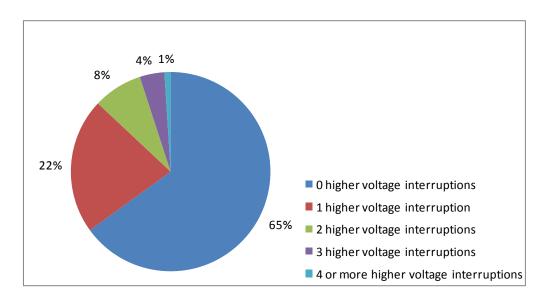
- 1.6. Under DPCR4, DNOs are required to separately disaggregate both the prearranged and unplanned number of customers interrupted (including all voltage levels) by duration band. This information is intended to provide a better understanding of how customer minutes lost are made up and of DNOs' effectiveness in restoring customers' supplies following an interruption.
- 1.7. DNOs are also required to report the unplanned number of customers interrupted (excluding re-interruptions) by frequency band starting with customers experiencing zero higher voltage interruptions and rising in single increment up to customers experiencing 10 higher voltage interruptions. DNOs are also required to report the total number of customers experiencing more than 10 higher voltage interruptions and the largest number of higher voltage interruptions experienced by any customer.

Figure A4.1 Disaggregation by duration band - 2008/09 customers interrupted (excluding exceptional events)



1.8. The above graph shows the proportion of customers interrupted by duration band (excluding exceptional events). Over half of the customers interrupted under normal conditions during 2008/09 were restored within one hour of being interrupted. About a quarter of customers interrupted under normal conditions during the same period were restored within two hours of being interrupted. Eight per cent of customers who were interrupted during normal condition in 2008/09 were restored within two hours up to and excluding three hours, six per cent were restored within three to six hours while three per cent were restored within six to twelve hours. The remaining one per cent was restored twelve hours or longer.

Figure A4.2 Disaggregation by frequency band - 2008/09 customers interrupted (excluding exceptional events)



1.9. The above graph shows the proportion of customer interruptions by frequency band (excluding exceptional events). Around 65 per cent of customers were reported as experiencing zero higher voltage interruptions (no change from 2007/08). 22 per cent experienced one higher voltage interruptions; eight per cent experienced two higher voltage interruptions. Four per cent of customers were reported as experiencing three higher voltage interruptions while just one per cent experienced four or more higher voltage interruptions in the same period.

# Appendix 5 - 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.
- **1.3.** Duties and functions relating to g as 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.
- 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 consumers, present and future, 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; and
- The interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.
- 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 under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
- Protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity;
- Contribute to the achievement of sustainable development; 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 nay 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 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.

# Appendix 6 - Glossary

#### CIs

The number of customer interruptions per year. The number of customers whose supplies have been interrupted per 100 customers per year over all incidents, where an interruption of supply lasts for three minutes or longer, excluding re-interruptions to the supply of customers.

#### **CMLs**

The duration of interruptions to supply per year measured by the average customer minutes lost per customer, per year, where an interruption of supply to customer(s) lasts three minutes or longer

#### **DNOs**

**Distribution Network Operators** 

#### **DPCR**

Distribution Price Control Review

#### **Short Interruptions**

The number of customers whose supplies have been interrupted by a short interruption per 100 customers per year over all short interruptions, where the initial interruption to supply is restored in less than three minutes

# Return on Regulatory Equity (RORE)

The rate of return to the portion of the RAV assumed to be financed by equity under DPCR4 final proposals.

# Appendix 7 - Feedback Questionnaire

- 1.1. Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:
- **1.** Do you have any comments about the overall process, which was adopted for this consultation?
- **2.** Do you have any comments about the overall tone and content of the report?
- **3.** Was the report easy to read and understand, could it have been better written?
- **4.** To what extent did the report's conclusions provide a balanced view?
- **5.** To what extent did the report make reasoned recommendations for improvement?
- **6.** Please add any further comments?
- 1.2.
- 1.3. Please send your comments to:

#### Andrew MacFaul

Consultation Co-ordinator
Ofgem
9 Milbank
London
SW1P 3GE
Andrew.macfaul@ofgem.gov.uk