

2001/02 Electricity Distribution Quality of Supply Report

June 2003

Contents

Page 1	Contents
Page 2	Summary
Page 3	Introduction
	Section 1 – Background to the Electricity Distribution Network Operators
Page 4	Background to the Electricity Distribution Network Operators
Page 5	Map
Page 6	DNO Network Information
	Section 2 – Key Quality of Supply Measures
Page 7	Overall Measures of Quality of Service, Accuracy of Reporting
Page 8	Targets for the Number and Duration of Interruptions
Page 9	Guaranteed Standards
Page 10	Overall Standards
	Section 3a – DNOs’ Performance in 2001/02
Page 11	Customer Interruptions & Customer Minutes Lost 2001/02
Page 12	Short Interruptions 2001/02
Page 13	Performance under the IIP Incentive Scheme 2001/02
Page 14	Guaranteed and Overall Standards of Performance 2001/02
	Section 3b – DNO Summaries
Page 15	Section 3b – DNO Summaries cover page
Page 16	Aquila
Page 17	EME
Page 18	EPN
Page 19	Hydro
Page 20	LPN
Page 21	NEDL
Page 22	SP Distribution
Page 23	SPN
Page 24	Southern
Page 25	SP Manweb
Page 26	United Utilities
Page 27	WPD South Wales
Page 28	WPD South West
Page 29	YEDL
	Section 4 – How the Regulatory System Protects Customers
Page 30	How the Regulatory System Protects Customers
	Section 5 – Ongoing Work
Page 31	Ongoing Work
	Appendices
Appendix 1	DNO Profiles
Appendix 2	Exemptions to the Guaranteed Standards
Appendix 3	Data Tables
Appendix 4	Customer Interruptions and Minutes Lost: by Source and by Voltage

Summary

Ofgem considers quality of supply to be one of its key priorities and for that reason it has been undertaking a programme of work to improve regulation of electricity distribution companies to ensure they deliver an appropriate level of service to customers.

The first year of the project focused on the quality of service information collected by the distribution companies and in particular on defining the outputs to be incentivised and ensuring that these were measured accurately and consistently across companies. The second year of the project focused on putting in place an incentive scheme for the period 2002/03 to 2004/05. In addition, in April 2002 Ofgem introduced new Standards of Performance relating to multiple interruptions.

Many of the distribution companies have made substantial improvements in quality of supply performance since 1991/92, with the average number of power cuts per 100 customers having fallen by 11% and the average duration of power cuts per customer having fallen by at least 30%. These figures understate the true extent of improvements in performance because of changes in the measurement systems used by companies to record and report their quality of supply. The historic systems typically underestimated the number of customers affected while new systems introduced under the Incentives and Information Project (IIP) are to much higher levels of accuracy and are regularly audited by Ofgem. Current average levels of performance are better than those in most other European countries.

This report sets out the quality of supply performance in the period 1 April 2001 to 31 March 2002 for the 14 electricity distribution network operators. It does not include the October 2002 storm period, which will be covered in the 2002/03 Quality of Supply Report. The aim of the report is to pull together the key quality of service performance indicators in a format that is easy to understand. Ofgem will be publishing a similar quality of supply report on the gas sector towards the end of 2003.

Introduction¹

All licensees who operate transmission or distribution systems are required to report annually to Ofgem on their performance in maintaining system security, availability and quality of service. This information provides a picture of the continuity and quality of supply experienced by final customers.

Ofgem has made a commitment to publish an annual report on the overall performance of all 14 Distribution Network Operators (DNOs) and this report marks the beginning of that role. The aim of the report is to pull together the key information on the DNOs' quality of supply 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 Transco, SP Transmission and Scottish & Southern.

The document contains the following sections:

- Section 1 – Background to the Electricity Distribution Network Operators
- Section 2 – Explanation of the Key Quality of Service Measures
- Section 3 – Performance in 2001/02
- Section 4 – How the Regulatory System Protects Customers
- Section 5 – Ongoing Work

Summary tables and additional information are contained in the appendix.

Data for 2001/02 has been adjusted to reflect audits of reporting accuracy which took place in summer 2002. This was the first year of such audits and adjustments and this, together with the workload arising from the storms in October 2002, have delayed publication of this report. Ofgem intends to make the complex information relating to the distribution network operators as meaningful and user friendly as possible and welcomes any comments or suggestions for the format of future reports.

As this is a transitional year with responsibility for publishing Guaranteed and Overall Standards (GOSPs) divided between Ofgem and energywatch, we are including the information relating to DNOs in this report. Responsibility for publication of GOSPs now rests with energywatch, as of the last six months of 2001/02, so we would not expect to include this information as part of the report in future years.

Ofgem intends to publish the 2002/03 Quality of Supply Report by December 2003.

Comments should be sent by the end of September 2003 to:

James Hope
Senior Distribution Policy Analyst
Ofgem
9 Millbank
London
SW1P 3GE

Email: James.hope@ofgem.gov.uk

¹ The Quality of Supply Report supersedes the old Distribution and Transmission System Performance Reports that Ofgem previously produced.

Section 1 - Background on the 14 Electricity Distribution Network Operators

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. However, with the introduction of competition in supply, it was important to ensure that all supply businesses, both new and old, had fair access to the distribution networks.

The Utilities Act 2000 introduced separate licences for distribution and supply, and required that these be held by separate legal entities.

Distribution

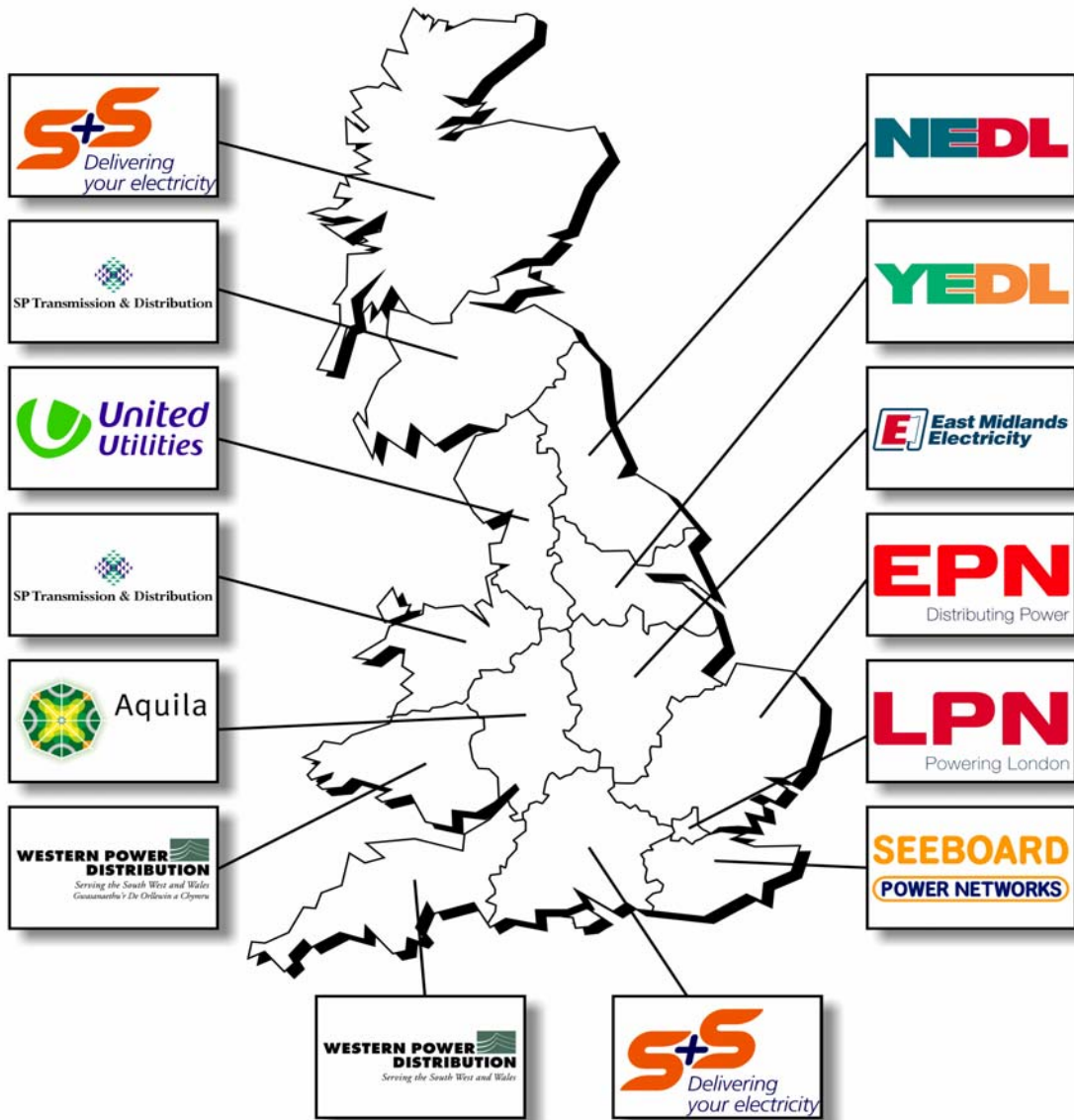
Distribution Network Operators are responsible for local distribution of electricity along overhead wires and through underground cables. This includes responsibility for ensuring that customers have a reliable electricity supply and restoring customers promptly in the event of an interruption to their electricity supply as set out in the Guaranteed and Overall Standards and the Quality of Service Incentive Scheme, which are discussed later in this document. Following privatisation and a number of corporate acquisitions, the 14 distribution licenses are owned by 8 separate companies (see Map).

How much does distribution cost the customer?

Electricity distribution costs account for around £2 billion annually and makes up 25 to 30 per cent of customers' electricity bills.

For a typical domestic electricity customer, based on consumption of 3300 kWh of electricity a year, the distribution element of their bill would be approximately £60.

Map of Great Britain showing the Geographical Areas of the 14 Distribution Network Operators



Name in the report	Name on Map
Aquila	Aquila
EME	East Midlands Electricity
EPN	EPN
Hydro	Scottish & Southern
LPN	LPN
NEDL	NEDL
SP Distribution	SP Transmission & Distribution
SPN	Seeboard Power Networks
Southern	Scottish & Southern
SP Manweb	SP Transmission & Distribution
UU	United Utilities
WPD S Wales	Western Power Distribution
WPD S West	Western Power Distribution
YEDL	YEDL

Distribution Network Operator (DNO) Information

Distribution Network Operator Information 2001/02

DNO	Total No of Customers	Length of circuit km									
		132kV		66kV		33kV		HV		LV	
		Overhead	Underground	Overhead	Underground	Overhead	Underground	Overhead	Underground	Overhead	Underground
Aquila	2,299,379	1,405	298	809	18	1,045	376	14,723	11,598	6,301	23,919
EME	2,421,506	2,158	193	10	10	2,864	1,429	12,906	12,205	5,325	30,902
EPN	3,381,566	2,356	231	0	0	3,875	2,534	19,297	17,223	9,474	36,302
Hydro*	673,138	-	-	0	0	5,325	649	21,103	4,766	4,244	8,917
LPN	2,083,617	28	470	12	445	0	638	1	9,072	0	19,772
NEDL	1,510,799	604	73	1,023	437	355	417	10,085	7,427	2,956	16,233
SP Distribution*	1,906,498	-	-	0	0	2,963	1,838	16,953	15,189	4,544	24,110
SPN	2,112,108	1,179	333	0	0	1,314	1,266	5,593	11,035	4,149	20,496
Southern	2,706,336	1,920	394	6	163	3,459	1,795	13,398	14,333	8,929	29,407
SP Manweb	1,433,917	1,299	213	0	0	2,006	1,528	13,053	6,398	5,310	16,065
UU	2,269,503	1,332	249	0	0	1,389	1,785	7,994	11,266	3,032	30,984
WPD S. Wales	1,041,325	1,165	71	355	15	1,465	380	12,315	4,970	3,165	9,120
WPD S. West	1,356,895	1,372	58	0	0	2,842	1,030	17,430	6,444	7,793	11,826
YEDL	2,142,733	1,222	196	941	58	1,294	1,366	9,797	10,805	2,523	27,983

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

Section 2 - Key Quality of Supply Measures

There are two main sets of quality of service measures for the DNOs.

- Overall measures² of the quality of service the DNOs provide; and
- Guaranteed and Overall Standards of Performance.

Overall measures of quality of service

DNOs are required to report annually on:

- **the number of interruptions to supply per year** – the number of customers affected by power cuts lasting 3 minutes or longer per 100 customers per year. Where several outages occur affecting the same customer as part of the same fault, this will only count as one power cut³.
- **the duration of interruptions to supply per year** – the average minutes without power per customer per year, only including power cuts which last for three minutes or longer.
- **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.

Accuracy of reporting

Ofgem has introduced standard definitions and guidance for reporting the number and duration of interruptions to supply each year and also minimum levels of accuracy to be met in reporting this data. This ensures that the data is robust and a fair reflection of the service actually provided to customers. Ofgem carries out an audit each year to ensure that the definitions are properly applied and that the data is accurate. Where data is found to be inaccurate then appropriate adjustments are made. The current accuracy levels required for reporting are:

Table 2.1 Required Accuracy Levels for Reporting

Output measure	Minimum overall level of accuracy (%)	Minimum level of accuracy (%) for LV faults
Number of interruptions to supply	95	90
Duration of interruptions to supply	95	90

² Information and Incentives Project Regulatory Instructions and Guidance Version 2 March 2002

³ 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.

Targets for the Number and Duration of Interruptions

Individual targets for the number and duration of interruptions were set as part of the Price Control in December 1999. These reflect differences between the networks such as, the areas they cover, the extent to which they are overhead or underground, their age profiles, their population bases and how customers are distributed. Additionally, in Scotland the two distribution companies are not responsible for the 132kV networks, the two Scottish transmission companies have this responsibility.

On 1 April 2002 Ofgem introduced an incentive scheme which penalises or rewards DNOs dependent on their performance against their targets for customer interruptions and customer minutes lost.

The targets⁴ for 2002/03 to 2004/05 are set out in Table 2.2 below.

Table 2.2 DNO 2002/03, 2003/04 and 2004/05 Targets

DNO	2002/03 and 2003/04 Targets		2004/05 Targets	
	Average number of interruptions per 100 connected customers	Average duration of interruptions (mins) per connected customer	Average number of interruptions per 100 connected customers	Average duration of interruptions (mins) per connected customer
Aquila	131.00	125.87	131.00	116.90
EME	81.30	92.73	81.30	71.00
EPN	102.02	82.31	92.02	82.31
Hydro	135.10	195.80	135.10	195.80
LPN	38.62	45.03	31.82	45.03
NEDL	89.70	96.54	89.70	96.54
SP Distribution	66.40	87.70	66.40	87.70
SPN	96.80	96.65	96.80	85.17
Southern	99.75	100.58	93.56	100.58
SP Manweb	47.20	65.80	47.20	65.80
UU	56.45	68.20	54.80	68.20
WPD S. Wales	152.80	129.20	152.80	129.20
WPD S. West	103.86	84.54	80.50	62.60
YEDL	84.82	74.43	84.82	66.69

In measuring DNOs' performance against the targets, Ofgem recognises that the number of interruptions arising from interruptions on other networks are outside the DNO's control. They are therefore excluded. However, a DNO can take appropriate actions to mitigate the duration of these interruptions. 10 percent of the duration of interruptions on other networks is therefore included in assessing performance against targets.

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 deciding the extent of any adjustment Ofgem will take into account whether the DNO has taken all reasonable steps to restore customers in an efficient and effective manner.

⁴ A number of adjustments were made to DNOs' targets on 1 April 2002 and 31 March 2003 to reflect changes in definitions and measurement systems for the number and duration of interruptions. These changes do not make the targets easier or harder to achieve than those originally set in December 1999, but make them consistent with how performance is measured on an ongoing basis. The targets in Table 2.2 above reflect the changes.

Guaranteed and Overall Standards of Performance

Standards of performance are an important element in the regulatory framework and serve to protect the interests of customers in key service areas.

There are two types of standards:

- Guaranteed Standards (GS) set service levels that must be met in each individual case and are established by a series of Statutory Instruments. If the licence holder fails to provide the level of service required, it must make a payment to the customer affected subject to certain exemptions. The exemptions are set out in Appendix 2.
- Overall Standards (OS) require DNOs' average level of performance for particular services to be above a minimum level.

Guaranteed Standards⁵ (GS) cover 8 service areas, which are shown in Table 2.3 and individual DNOs performance against the standards in 2001/02 is presented in Section 3. These standards have been set to guarantee a level of service that it is reasonable to expect companies to deliver in all cases. A customer who does not receive the required level of service is entitled to a compensation payment, subject to certain exemptions. It is for the DNO to consider the application of the standards of performance regulations and decide whether an exemption applies. However, customers may challenge the application of the exemption and refer the issue to Ofgem. In such cases Ofgem decides whether or not the DNO has acted consistently with its legal obligations and whether the customer is due compensation.

Reporting code	Service	Performance Level	Penalty Payment
GS1	Respond to failure of distributors fuse	All DNOs to respond within 3 hours on weekdays (at least) 7 am to 7 pm, and within 4 hours at weekends between (at least 9 am to 5 pm)	£20
GS2*	Restoration of supply following a fault	Supplies must be restored within 18 hours, otherwise a payment must be made	£50 domestic customers £100 non-domestic, plus £25 for each further 12 hours
GS2A*	Multiple Interruptions	Four or more separate interruptions each lasting 3 or more hours in any single year (1 April – 31 March)	£50
GS3	Estimating charges for connection	5 working days for simple jobs and 15 working days for most others	£40
GS4*	Notice of planned interruption to supply	Customers must be given at least 2 days notice	£20 domestic customers £40 non-domestic
GS5	Investigation of voltage complaints	Visit within 7 working days or substantive reply within 5	£20
GS8	Making and keeping appointments	Companies must offer and keep a morning or afternoon appointment, or a timed appointment if requested by the customer	£20
GS9	Notifying customers of payments owed under the standards	Payment to be made within 10 working days	£20

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

⁵ GS6 and GS7 relate to electricity supply businesses and are therefore not shown in this report.

Overall Standards (OS) set the minimum levels of performance that distribution businesses are required to achieve over a 12- month period in specific service areas. A description of these standards is provided in the table below and individual DNOs performance against the standards in 2001/02 is presented in Section 3.

There is currently no obligation to make a payment to the customer if a DNO fails to meet an OS. Under SI 3265 (2001) DNOs are required to report on their performance against the Overall Standards. This is a further incentive for DNOs to achieve the required level of performance.

As of 1 April 2002, OS1a has been discontinued, and future reports will no longer show this standard. On 1 April 2002 a new standard OS5, dealing with multiple interruptions was introduced. Future reports will show performance against this standard.

Table 2.4 Overall Standards of Performance		
Reporting code	Service	Target level
OS1a	Restoration of Supply: Minimum percentage of supplies to be reconnected following faults within 3 hours	85% - 95%
OS1b	Restoration of Supply: Minimum percentage of supplies to be reconnected following faults within 18 hours	99.5%
OS2	Voltage Complaints: Minimum percentage of voltage complaints to be corrected within 6 months	100%
OS3a	New Connections: Minimum percentage of domestic consumers connected within 30 working days	100%
OS3b	New Connections: Minimum percentage of business premises connected within 40 working days	100%
OS4	Correspondence: Minimum percentage of customers letters to be responded to within 10 working days	100%
OS5	Multiple interruptions (from 1 April 2002): Minimum percentage of customers experiencing no more than five interruptions each lasting 3 minutes or more	96% - 99%

Individual DNO targets:

- OS1a – Aquila 95%, EPN 93%, EME, NEDL, SPN, Southern, SP Manweb, and UU 90%, Hydro, LPN, SP Distribution, WPD S. Wales, WPD S. West and YEDL 85%.
- OS5 – LPN 99%, EME, EPN, SP Distribution, SPN, Southern, SP Manweb, UU, and YEDL 98%, Aquila, Hydro, NEDL, WPD S. Wales and WPD S. West 96%.

Section 3a - DNOs' Performance in 2001/02

Figure 3.1 Average Customer Interruptions (CIs) per 100 customers 2001/02

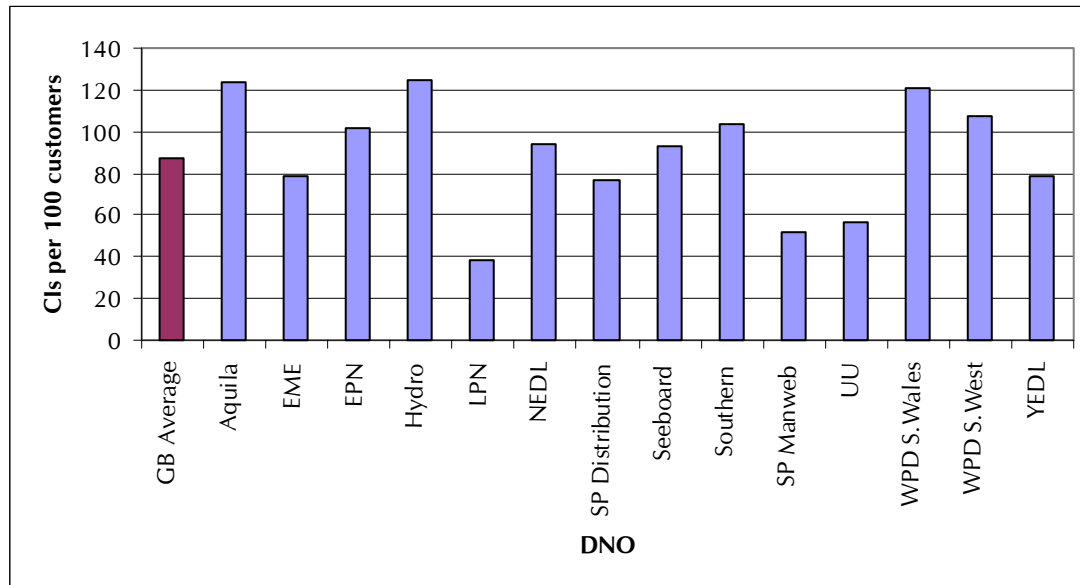


Figure 3.1 shows the average number of customer interruptions per 100 customers in 2001/02 across Great Britain was 87.4. It also shows the level of performance for each DNO. The data covers all interruptions, including those caused by bad weather, faults and pre-arranged shutdowns for maintenance and construction.

Figure 3.2 Average Customer Minutes Lost (CMLs) 2001/02

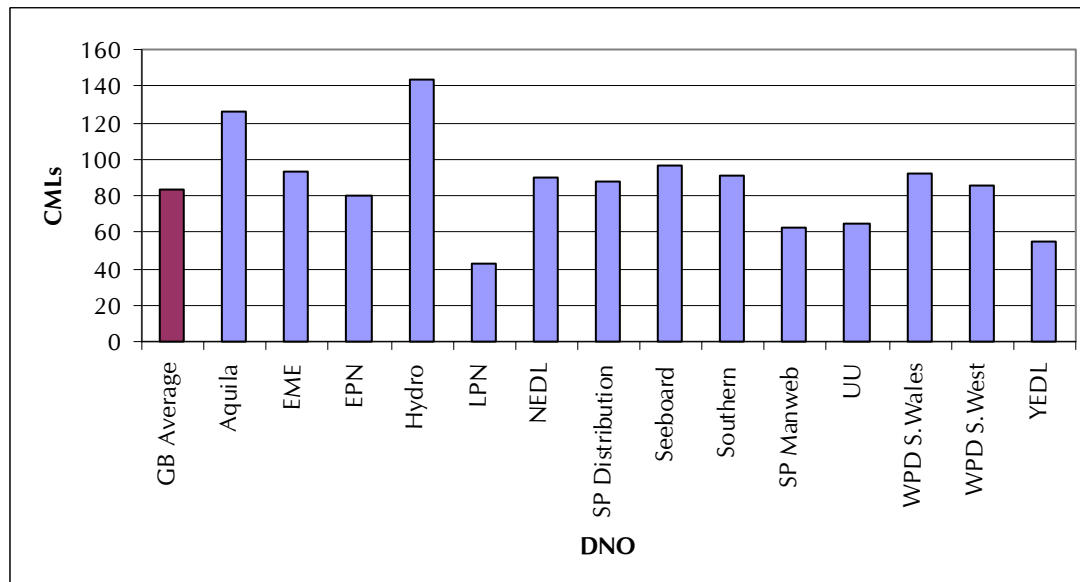


Figure 3.2 shows the average number of minutes customers were off supply in 2001/02 across Great Britain was 83.7. It also shows the level of performance for each DNO. Restoration of supplies in remote areas and those with low population density can sometimes be delayed by difficult terrain and longer distances between DNO depots and customers and 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 and remote control.

Figure 3.3 Short Interruptions per 100 Connected Customers 2001/02

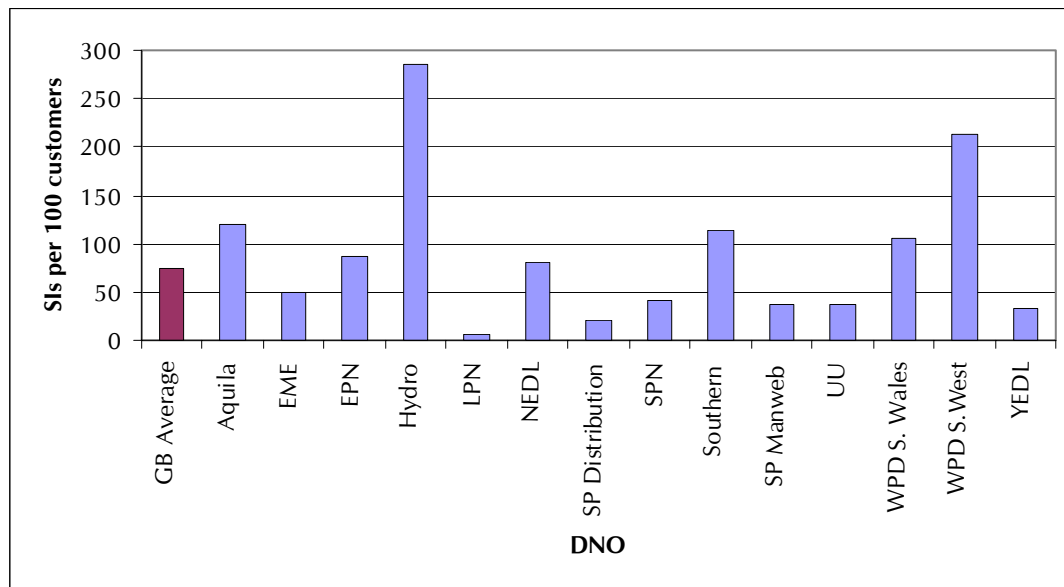


Figure 3.3 shows per 100 connected customers the average number of short interruptions across Great Britain was 75. It also shows the performance of each of the DNOs. Aquila, Hydro, Southern, WPD South Wales and WPD South West all reported significantly above the GB average. EME, LPN, SP Distribution, SPN, SP Manweb, United Utilities and YEDL were all below the GB average.

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.

2001/02 Performance⁶ against Targets

Figure 3.4 Customer Interruptions – 2001/02 Performance Relative to 2004/05 Targets

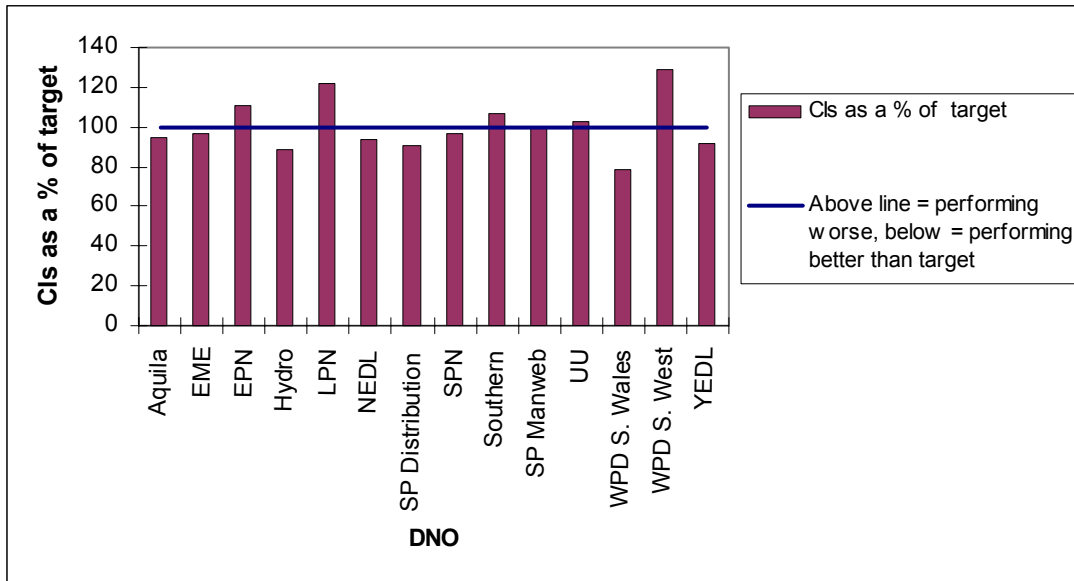
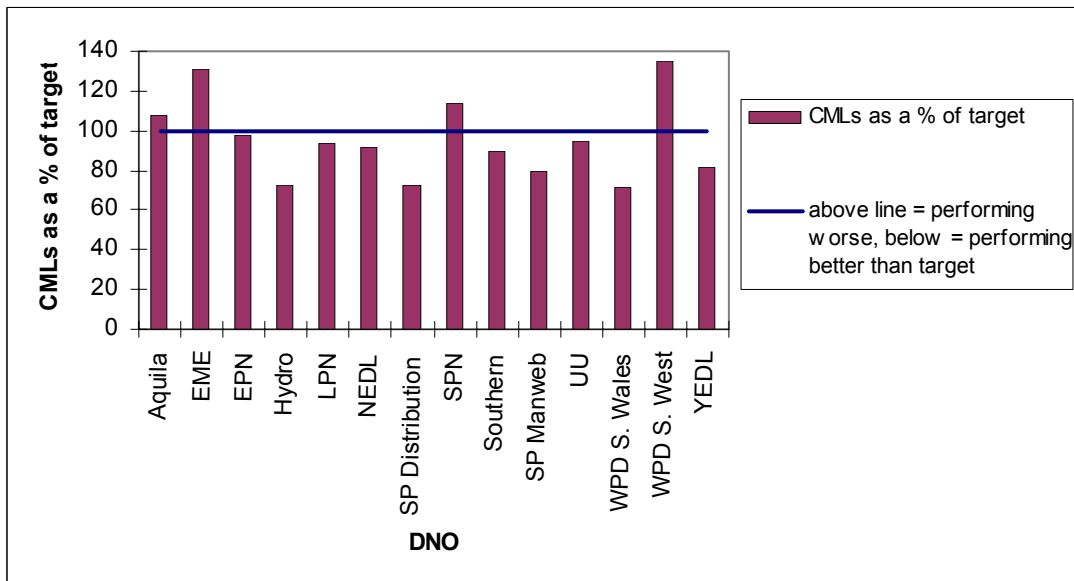


Figure 3.5 Customer Minutes Lost – 2001/02 Performance Relative to 2004/05 Targets



Figures 3.4 and 3.5 show DNOs' progress towards achieving their 2004/05 targets. A number of DNOs are close to or are already outperforming their 2004/05 targets, whilst some other DNOs have further improvements to make over the period 2002/03 – 2004/05 to meet their targets.

It is important to note that comparisons against the Price Control targets are only one way of assessing performance, many of the DNOs have made substantial improvements in performance year on year.

As part of the Price Control Review, Ofgem and the DNOs are undertaking work on improving comparisons of quality of supply performance, to help ensure that robust targets are set for all DNOs as part of the next Price Control.

⁶ Incentive scheme performance, following adjustments for reporting accuracy and exceptional events.

2001/02 Guaranteed and Overall Standards Performance

As this is a transitional year with responsibility for publishing Guaranteed and Overall Standards (GOSPs) divided between Ofgem and energywatch, we are including the information relating to DNOs in this report. Responsibility for publication of GOSPs now rests with energywatch, as of the last six months of 2001/02, so we would not expect to include this information as part of the report in future years.

Figure 3.6 Guaranteed Standards of Performance – Total Number of Payments made in 2001/02

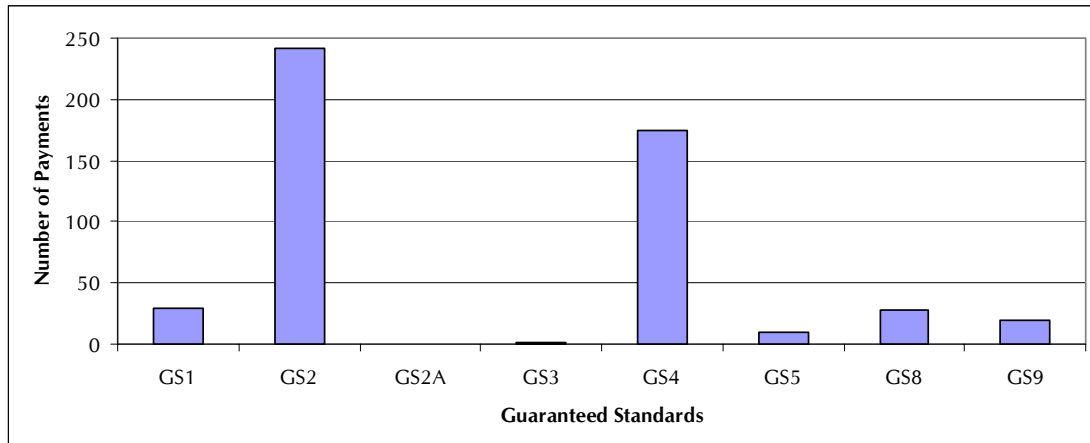


Figure 3.6 shows the total number of payments made by the 14 DNOs under each of the Guaranteed Standards in 2001/02. A total of 241 payments were made by six DNOs under GS2, which specifies that supplies must be restored within 18 hours following a fault. The majority of the payments were made by SP Distribution, SP Manweb, United Utilities and YEDL. A total of 174 payments were made by eight DNOs under GS4. GS4 states that customers must be given at least two days notice of a planned interruption to supply. SP Distribution and NEDL made 52 and 50 of these payments respectively, United Utilities made 28 payments and five DNOs accounted for the other 44 payments.

Figure 3.7 Overall Standards of Performance – Average Performance in 2001/02

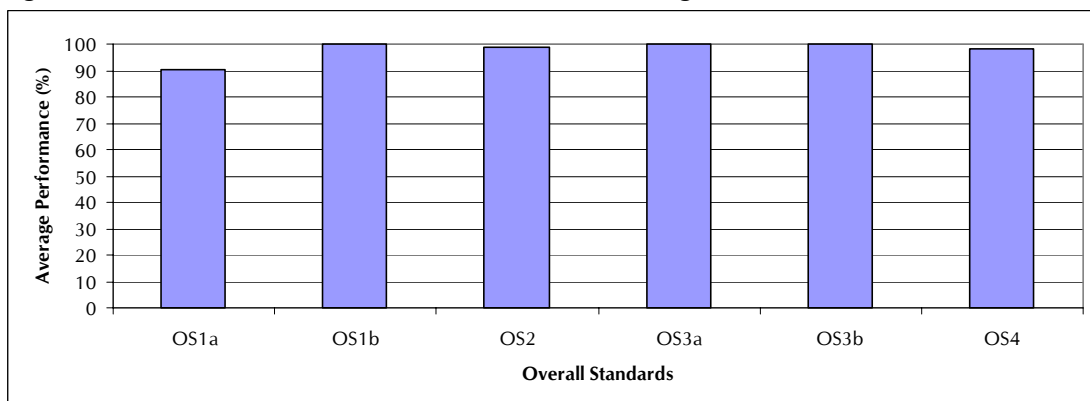


Figure 3.7 shows average performance achieved across the 14 DNOs with respect to the Overall Standards. Average performance against OS2, the standard relating to voltage faults, was 99.3%, although nine of the DNOs met the 100% level specified by the standard. Average performance against OS4, the standard relating to responding to customers letters, was 98.0%. This was due to three DNOs failing to meet the 100% level specified by the standard, with SP Distribution at 75.3% being farthest from the standard.

Section 3b – DNO Summaries

This section contains a page on the performance of each of the 14 DNOs. It sets out their:

- 2001/02 performance for the number and duration of interruptions;
- 2002/03, 2003/04 and 2004/05 targets;
- payments against the Guaranteed Standards;
- performance against the Overall Standards;
- fault rates per 100km of circuits.

Note: Comparisons of the number of faults in 2001/02, with levels in previous years should be treated with caution due to the impact of reporting changes.

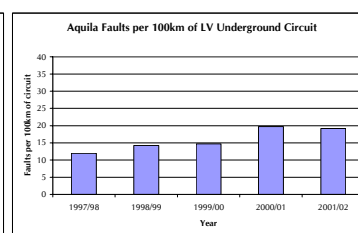
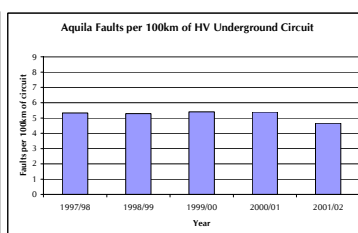
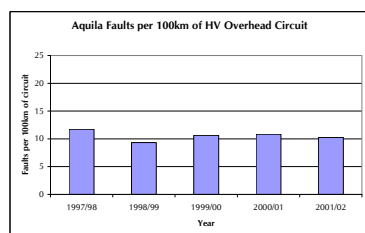
In addition each DNO has provided commentary on its 2001/02 performance.

Aquila – Quality of supply and network performance for 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	123.54	131.00	131.00	131.00
CML	125.87	125.87	125.87	116.90

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	7
GS2	Restoration of supply following a fault	0
GS3	Estimating charges for connection	0
GS4	Notice of planned interruption to supply	14
GS5	Investigation of voltage complaints	0
GS8	Making and keeping appointments	1
GS9	Notifying customers of payments owed under the standards	5

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	95.0	89.4
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	99.9
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	96.5
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	100.0
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	98.7



Commentary provided by Aquila

Aquila Networks achieved a significant improvement in 2001/02 in reducing the number and duration of interruptions experienced by our customers.

This performance has been achieved predominantly through a number of key initiatives:

- The main focus of our restoration and improvement strategies was our high voltage network, as this is the main driver of our customer minutes lost. We replaced a significant number of less reliable 'small cross section' overhead lines in 2001/02 which make up some 30% of our overhead network.
- We continued our extensive remote control programme in rural areas and extended it into some urban areas.
- The targeted replacement of 'Consac' underground cable reduced the number of repetitive customer interruptions.
- We are also working with contractors to reduce the number of incidents arising from damage to our network by third parties.

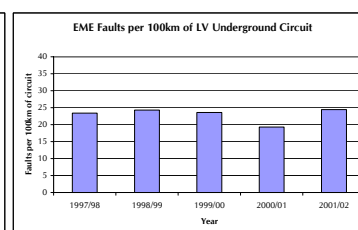
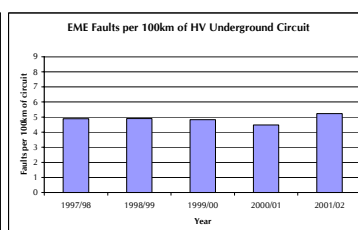
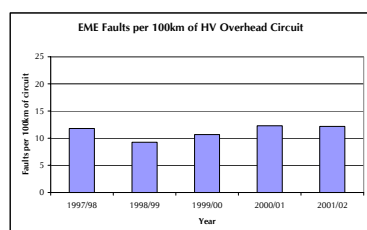
Also, during 2001/02, whilst the weather was generally clement, there was a storm with wind gusts of 60mph which caused around 130 network faults on 26th February. Whilst the outbreak of Foot and Mouth disease affected access to land in rural areas, we were able to complete most of our refurbishment and replacement programmes as planned.

EME – Quality of supply and network performance for 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	78.82	81.30	81.30	81.30
CML	92.73	92.73	92.73	71.00

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	0
GS2	Restoration of supply following a fault	0
GS3	Estimating charges for connection	1
GS4	Notice of planned interruption to supply	5
GS5	Investigation of voltage complaints	0
GS8	Making and keeping appointments	6
GS9	Notifying customers of payments owed under the standards	1

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	90.0	86.7
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	99.8
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	99.5
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	100.0
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	100.0



Commentary provided by EME

The average duration of supply interruptions was 92.73 minutes. This is a 17% improvement on the previous year's total. This year electricity has been available for 99.99% of the time.

EME experienced a slight decrease in the number of unplanned incidents at 33 kV and 11kV with a combined total of 2,999 this year compared with 3,088 for the previous year.

The total unplanned CML figure is 81.34, compared with 101.58 for the 2000/2001 reporting year.

CMLs for planned incidents are 11.39 compared with 10.04 for the previous year.

The number of interruptions per 100 customers has improved to 78.82 compared with last year's figure of 91.38. EME attributed this improvement mainly to their continuing investment in pole mounted auto-reclosers.

Performance by Voltage

132kV - Unplanned incidents at this voltage level have increased to 81 compared with 49 for the previous year, which resulted in 0.77 CMLs and 1.26 interruptions per 100 connected customers. This performance continues to reflect the security standards to which the network is designed, built and operated.

33kV - EME experienced 181 unplanned incidents compared with 241 for the previous year, resulting in 2.42 CML's and 3.00 interruptions per 100 customers. This is an improvement on the 2000/2001 performance.

11kV - This year there were 2,818 incidents, which is a slight decrease on last year's figure of 2,847. This resulted in 59.31 CMLs and 59.84 interruptions per 100 customers. This is a significant improvement against last year's figures.

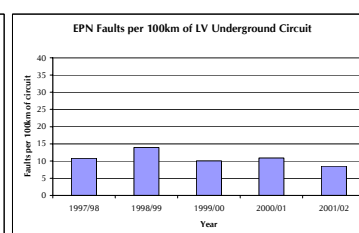
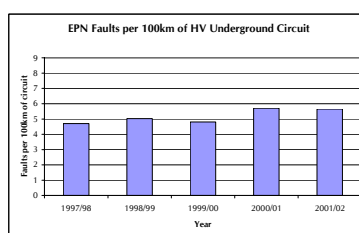
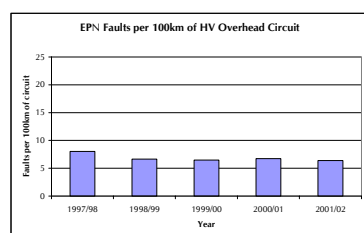
LV - There were 14,394 unplanned incidents on the LV network, which resulted in 18.99 CMLs and 11.15 interruptions per 100 customers.

EPN – Quality of supply and network performance for 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	102.02	102.02	102.02	92.02
CML	80.21	82.31	82.31	82.31

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	0
GS2	Restoration of supply following a fault	0
GS3	Estimating charges for connection	0
GS4	Notice of planned interruption to supply	0
GS5	Investigation of voltage complaints	0
GS8	Making and keeping appointments	7
GS9	Notifying customers of payments owed under the standards	1

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	93.0	94.3
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	100.0
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	97.8
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	100.0
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	100.0



Commentary provided by EPN

This year we introduced improved techniques to monitor and record our network performance in line with Ofgem's Information and Incentives Programme. Capturing more detailed and accurate data gives an even greater understanding of our network's dynamics, however this has also given an impression of a slight downturn in network performance. For 2001/02 our reported IIP performance was 102.02 Interruptions per 100 customers and 80.21 CMLs.

We continued our highly successful remote control programme during 2001 with the installation of a further 200 units onto our urban and rural networks. This programme is yielding benefits enabling us to pinpoint, repair faults and restore power supplies more quickly. Our programme to replace oil filled 11kV distribution switchgear continued in 2001, with a further 250 units replaced with modern non-oil units.

Our programme of re-building and refurbishment was significantly hindered by access restrictions enforced by the foot and mouth epidemic. Despite being unable to gain access to work on large areas of farmland and countryside to construct and refurbish the power network, a concerted effort meant that all projects were completed by the end of the year.

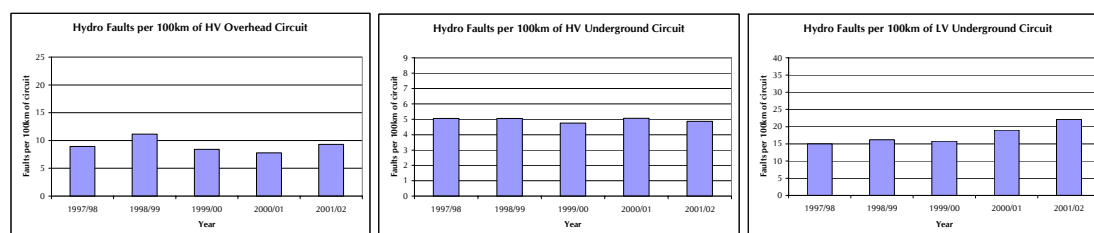
We also turned our focus to the low voltage network and began a programme of investment on low voltage overhead lines in the region. This programme includes the replacement of open wire overhead lines with insulated conductors, and under-grounding overhead lines in particularly vulnerable areas.

Hydro – Quality of supply and network performance for 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	119.87	135.10	135.10	135.10
CML	142.10	195.80	195.80	195.80

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	0
GS2	Restoration of supply following a fault	0
GS3	Estimating charges for connection	0
GS4	Notice of planned interruption to supply	0
GS5	Investigation of voltage complaints	0
GS8	Making and keeping appointments	1
GS9	Notifying customers of payments owed under the standards	0

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	85.0	87.4
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	99.2
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	100.0
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	100.0
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	100.0



Commentary provided by Scottish Hydro

Scottish Hydro-Electric Power Distribution achieved an excellent performance in 2001/2, as reported to Ofgem under IIP. It has reduced the reported "average number of minutes its customers were without electricity" by 62% since 1996, and the "average number of times a customer has an interruption" by 58% over the same period.

This improvement has been achieved by significant investment in the network - over £56m spent on refurbishing 2,200km of overhead lines in the past year, as well as introducing new technologies such as 'hot hands' working to minimise disruption to supplies during essential maintenance work. The company also utilise mobile generation to provide temporary electricity supplies during faults and planned maintenance work.

In the last year, the company has demonstrated yet again its capability to restore supplies following severe weather. In January 2002, much of the Scottish Hydro-Electric region faced its most severe storms for 20 years. The company's processes for liaising with the Weather Centres, and expertise at understanding weather forecasting, enabled it to deploy its field staff before the worst of the storm struck. This action resulted in significantly more rapid restorations of electricity supplies, and faster damage repairs.

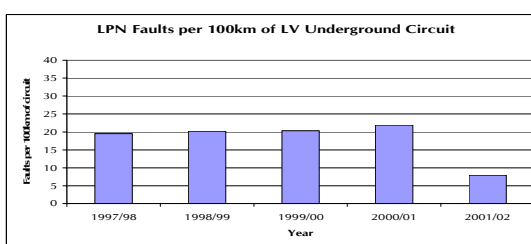
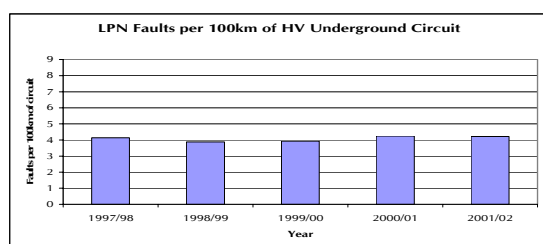
During the year the company fully participated in the government's study of the resilience of the UK's electricity infrastructure, and the ability of network operators to cope in extreme circumstances. The study's report identified industry leading practices, including the company's integrated network management centres, which incorporate customer reporting and liaison, resource dispatch and system control. The company was also praised for its high in-house capability across the range of skills.

LPN – Quality of supply and network performance for 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	38.62	38.62	38.62	31.82
CML	42.28	45.03	45.03	45.03

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	0
GS2	Restoration of supply following a fault	2
GS3	Estimating charges for connection	0
GS4	Notice of planned interruption to supply	0
GS5	Investigation of voltage complaints	6
GS8	Making and keeping appointments	1
GS9	Notifying customers of payments owed under the standards	1

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	85.0	90.9
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	99.9
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	100.0
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	100.0
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	100.0



Commentary provided by LPN⁷

Customers in the LPN distribution area continue to enjoy the most secure electricity supply in the country. We are pleased to report that there was a significant improvement in network performance in 2001/2002. For 2001/02 our reported IIP performance was 38.62 Interruptions per 100 customers and 42.28 CMLs.

We extended our highly successful remote control programme in 2001, introducing automated sequence switching logic. This is already starting to yield benefits to the programme, with supplies being restored within three minutes where automation has been commissioned. This will lead to most customers affected by HV faults having short interruptions of less than three minutes. We believe that our customers will find this a significant improvement.

In 2002 we will have completed this programme in the outer areas of London. We are currently testing remote control schemes in Central London where access can be difficult, especially due to new security measures.

The installation of around 5000 remote control units on our HV distribution substations has allowed the restoration of customers affected by network faults to be massively improved since the mid 1990s. In the last five years alone remote control has saved approximately 20 Customer Minutes Lost per annum and almost 60% of customers affected by HV faults now have their supplies restored within 30 minutes.

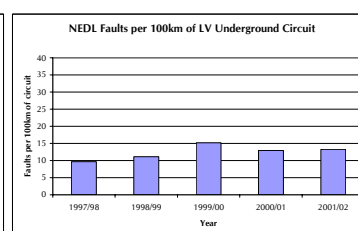
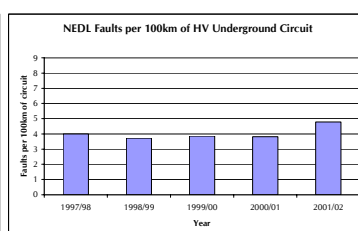
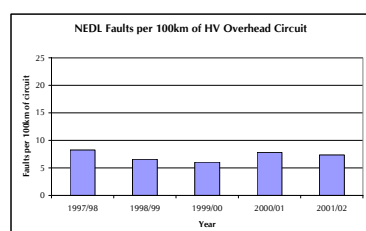
⁷ There is no graph on Faults per 100km of HV Overhead Circuit as LPN has virtually no HV Overhead circuits.

NEDL – Quality of supply and network performance for 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	83.84	89.70	89.70	89.70
CML	88.05	96.54	96.54	96.54

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	9
GS2	Restoration of supply following a fault	17
GS3	Estimating charges for connection	0
GS4	Notice of planned interruption to supply	50
GS5	Investigation of voltage complaints	0
GS8	Making and keeping appointments	1
GS9	Notifying customers of payments owed under the standards	0

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	90.0	90.1
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	99.8
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	97.1
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	100.0
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	100.0



Commentary provided by NEDL

The performance of NEDL's network in 2001/2 showed a continuing improvement on the previous year and is approaching the performance targets set by Ofgem for 2004/05.

There are two main reasons for this improvement. Firstly, unlike in the previous four years, the weather was relatively benign. Secondly, as a result of the foot and mouth crisis virtually all routine and improvement work on overhead lines had to be suspended, leading to a considerable reduction in the number of customers affected by pre-arranged interruptions.

Despite the foot and mouth crisis we invested over £50m in our distribution system. Our investment strategy is focused on delivering improvements in a cost-effective manner with an emphasis on targeting lower-performing areas. North Northumberland had been disproportionately affected by major storms in the recent past and consequently had become our worst-served area. In February 2002 we were finally able to commence the major improvement work that had been planned for this area. Other work to improve quality of supply in specific areas included the commissioning of major supply points in Consett, County Durham, at Newcastle Airport and at Carperby in Wensleydale.

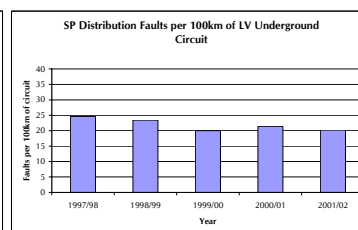
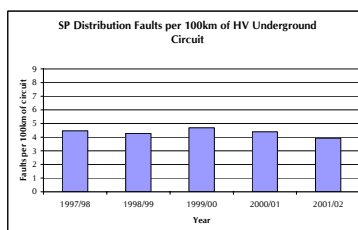
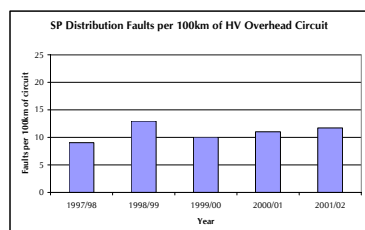
We have also continued with the programme for changing the type of earthing employed in rural areas, with the aim of reducing the number of transient interruptions experienced by customers. The supplies to over one third of rural customers now use this new type of earthing.

SP Distribution – Quality of supply and network performance for 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	59.93	66.40	66.40	66.40
CML	63.75	87.70	87.70	87.70

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	3
GS2	Restoration of supply following a fault	63
GS3	Estimating charges for connection	0
GS4	Notice of planned interruption to supply	52
GS5	Investigation of voltage complaints	2
GS8	Making and keeping appointments	4
GS9	Notifying customers of payments owed under the standards	12

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	85.0	85.7
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	99.1
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	99.8
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	100.0
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	75.3



Commentary provided by SP Distribution

SP Distribution was one of only two companies adversely affected by severe weather during 2001/02. The weather-corrected performance figures, which we have agreed with Ofgem, show that we have already achieved the targets set by Ofgem for achievement by 2004/05.

Even without removal of the exceptional events our reported performance shows that we achieved the CML target and were only the smallest fraction away from the CI target set for 2004/05. We are confident that the performance of our network continues to reflect the improvements achieved by our targeted investment plans in recent years.

We are disappointed at our performance in relation to the Guaranteed and Overall Standards and recognise that we must do better. We are confident that the actions we have taken since 2001/02, including the appointment of a Customer Service and Community Director, will ensure that we improve our performance to meet the expectations of our customers in future years.

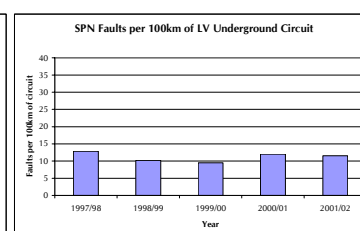
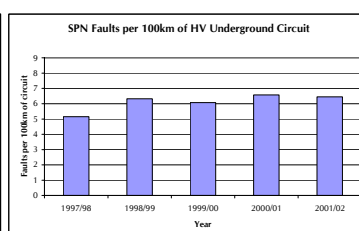
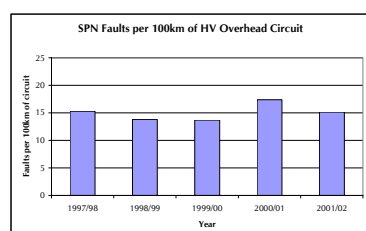
We continue to make investments to improve our reported performance and the service we provide to customers generally and in particular those we consider are 'worst served'. Following previous storms our "Rural Care" initiative targeted important 33kV and 11kV circuits for the removal of trees within falling distance of our lines. In October 2001 we began a major investment programme for the Borders area of Scotland, which was badly affected by storms in 1998 and 2001. By March 2004 we will have rebuilt 147km of 33kV line and 186km of 11kV line to a stronger construction standard.

SPN - Quality of supply and network performance for 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	93.29	96.80	96.80	96.80
CML	96.65	96.65	96.65	85.17

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	5
GS2	Restoration of supply following a fault	0
GS3	Estimating charges for connection	0
GS4	Notice of planned interruption to supply	3
GS5	Investigation of voltage complaints	0
GS8	Making and keeping appointments	3
GS9	Notifying customers of payments owed under the standards	0

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	90.0	91.0
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	99.9
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	100.0
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	100.0
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	100.0



Commentary provided by SPN

For 2001/02 our reported IIP performance was 93.29 Interruptions per 100 customers and 96.65 CMLs. SEEBOARD Power Networks welcomed the introduction of new reporting definitions, as part of the IIP. However, this change in reporting definitions has meant that this year's performance is difficult to compare with that achieved in previous years.

We have continued to invest significantly in our network to improve the quality of supply delivered to our customers. A number of our key initiatives are detailed below:

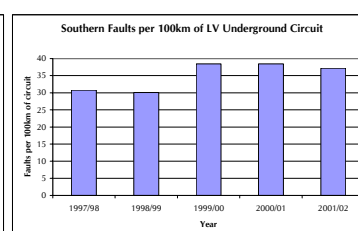
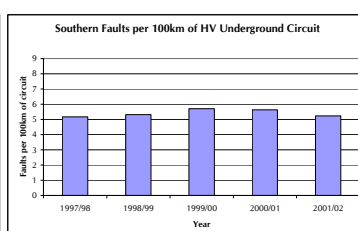
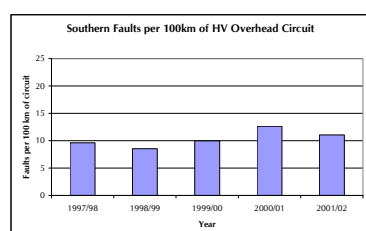
- Reducing the number of customers impacted by each fault by provision of additional sectionalisation points. During 2001/02, downstream circuit breakers on underground cable networks prevented 5.6 interruptions per 100 connected customers.
- Extending the penetration of remote control on the distribution network to reduce the amount of time it takes us to restore supplies after a power cut. By 31 March 2002, remote control facilities were available at 786 locations downstream of primary substations. In July 2002 we transferred operation of these devices into our Network Management System, providing a single platform for the remote control of our Transmission and Distribution Network
- Upgrading and refurbishing 38 HV circuits, bringing quality of supply improvement to 71,000 customers.
- The installation of a 33KV automation scheme which automatically restores supplies within 180 seconds of a power cut. This scheme benefits customers in the Hawkhurst, Robertsbridge and Mountfield areas. Further schemes will be implemented in 2002/03.

Southern – Quality of supply and network performance for 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	99.75	99.75	99.75	93.56
CML	89.70	100.58	100.58	100.58

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	0
GS2	Restoration of supply following a fault	0
GS3	Estimating charges for connection	0
GS4	Notice of planned interruption to supply	0
GS5	Investigation of voltage complaints	0
GS8	Making and keeping appointments	2
GS9	Notifying customers of payments owed under the standards	0

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	90.0	89.5
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	100.0
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	100.0
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	100.0
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	100.0



Commentary provided by Southern

Southern Electric Power Distribution reported a significant change in its reported performance in 2001/2, as reported to Ofgem under IIP. This was as a result of the introduction of new measurement systems to comply with Ofgem's Information and Incentives project. The project enables the company to 'connect' all of its customers to a computerised model of the electricity network, which in turn identifies which customers are affected by network faults.

The company again made a significant investment in the network - over £95m spent to increase the robustness of its network to withstand severe weather. Over 1,700km of overhead lines were refurbished to new standards in the past year. The company also utilises mobile generation to provide temporary electricity supplies during faults and planned maintenance work.

In the last year, the company demonstrated its capability to restore supplies following bad weather. The company's processes for liaising with the Weather Centres, and expertise at understanding weather forecasting enables it to deploy its field staff before a storm strikes. This action results in significantly more rapid restorations of electricity supplies, and faster damage repairs.

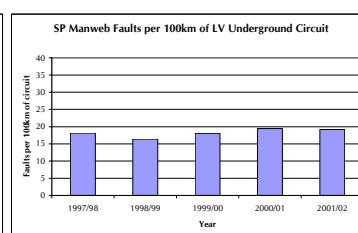
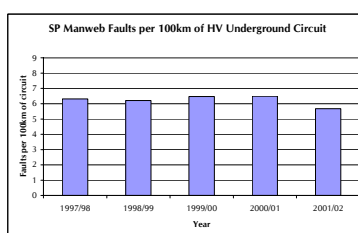
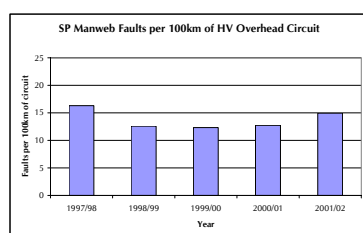
During the year the company fully participated in the government's study of the resilience of the UK's electricity infrastructure, and the ability of network operators to cope in extreme circumstances. The study's report identified industry leading practices, including the company's integrated network management centres, which incorporate customer reporting and liaison, resource dispatch and system control. The company was also praised for its high in-house capability across the range of skills.

SP Manweb – Quality of supply and network performance 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	47.06	47.20	47.20	47.20
CML	52.51	65.80	65.80	65.80

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	0
GS2	Restoration of supply following a fault	54
GS3	Estimating charges for connection	0
GS4	Notice of planned interruption to supply	11
GS5	Investigation of voltage complaints	2
GS8	Making and keeping appointments	0
GS9	Notifying customers of payments owed under the standards	0

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	90.0	85.3
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	99.7
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	96.3
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	100.0
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	97.3



Commentary provided by SP Manweb

SP Manweb was one of only two companies adversely affected by severe weather during 2001/02. The weather-corrected performance figures, which we have agreed with Ofgem, show that we have already achieved the targets set by Ofgem for achievement by 2004/05.

Even without removal of the exceptional events our reported performance shows that we achieved the CML target and were only a few percent away from the CI target set for 2004/05. However this gap remains a significant stretch for a company that is already so close to the performance frontier of companies who operate large overhead line networks.

We continue to review all aspects of our performance to seek out opportunities for further improvement. A recent initiative, to improve our performance in connection with the Guaranteed and Overall Standards of performance, has been the appointment of a Customer Service and Community Director.

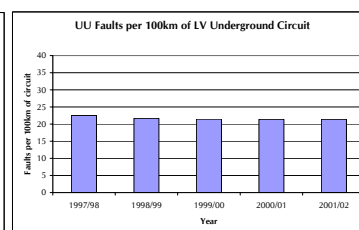
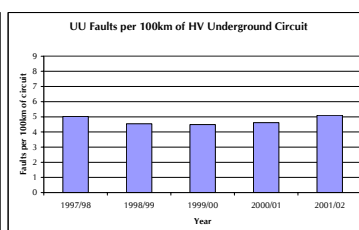
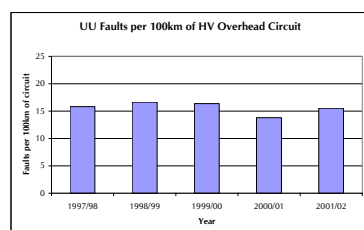
Our investments aimed at improving the overall performance of our network and the service we provide to customers, both generally, and in particular those we consider are 'worst served' continue to deliver results. In response to previous storms our "Rural Care" initiative targeted important 33kV and 11kV circuits for the removal of trees within falling distance of our lines. Unfortunately this programme has not progressed at the pace we had hoped due to the difficulty gaining permission to remove trees within national parks and from private landowners. Our current focus is therefore to rebuild over 175km of overhead lines per annum to a more storm resilient construction standard.

United Utilities – Quality of supply and network performance for 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	56.45	56.45	56.45	54.80
CML	64.41	68.20	68.20	68.20

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	4
GS2	Restoration of supply following a fault	56
GS3	Estimating charges for connection	0
GS4	Notice of planned interruption to supply	28
GS5	Investigation of voltage complaints	0
GS8	Making and keeping appointments	1
GS9	Notifying customers of payments owed under the standards	0

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	90.0	93.0
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	100.0
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	100.0
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	100.0
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	100.0



Commentary provided by United Utilities

United Utilities aims to deliver customer and network performance beyond the minimum levels set by the regulator and ensure that our customers receive a high quality service at a reasonable cost. We have continued to improve both the number and the duration of customer interruptions. The average number of interruptions per 100 customers has fallen from 53.91⁸ in 2000/01 to 49.4 in 2001/02 against a regulatory target of 54.8. The average duration of interruptions per customer has also fallen from 63.61¹ in 2000/01 to 53.4 in 2001/02 against a regulatory target of 68.2.

Of particular significance to the improved performance is the reduction in the number of prearranged customer interruptions by over 50% compared to previous years. This has been achieved through the increased use of mobile generation, and changes to operating procedures and restoration practices, including hot glove techniques and during 2001/2 our work programme was also modified in response to the difficulties caused by Foot and Mouth Disease.

It should be noted that the performance of the distribution network in any one particular year is dependent on a number of factors including the weather, the National Grid Company transmission system, company response to incidents and capital investment programmes. During 2001/02 the Northwest of England experienced relatively benign weather conditions and no transmission system incidents affected the number or duration of customer interruptions on the distribution system.

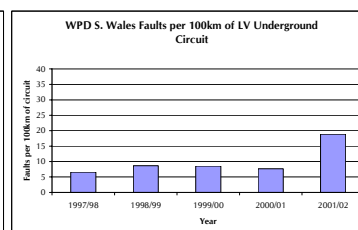
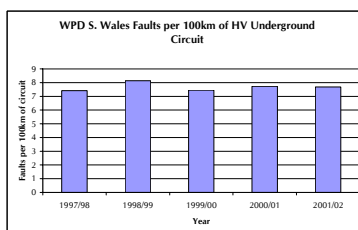
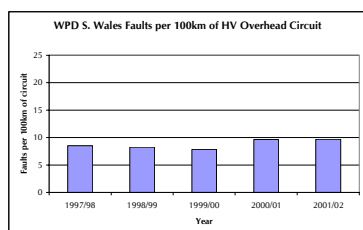
⁸ To allow for consistency in comparing performance between years, the figures for 2000/01 have been adjusted to reflect the IIP definitions as specified within the Regulatory Instructions and Guidance.

WPD South Wales – Quality of supply and network performance for 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	120.65	152.80	152.80	152.80
CML	91.75	129.20	129.20	129.20

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	0
GS2	Restoration of supply following a fault	0
GS3	Estimating charges for connection	0
GS4	Notice of planned interruption to supply	0
GS5	Investigation of voltage complaints	0
GS8	Making and keeping appointments	0
GS9	Notifying customers of payments owed under the standards	0

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	85.0	94.5
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	100.0
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	100.0
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	100.0
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	100.0



Commentary provided by WPD South Wales

The South Wales distribution network was acquired by WPD in October 2000. The main focus for the current year has been the completion and integration of the new business into WPD's existing operation in the South West of England. A combination of targeted investment and close monitoring of goals and targets has ensured that we have achieved significant improvements during our first full year of ownership. Customer Minutes Lost have improved by 27% during the year and customer interruptions by 19% over the same period.

To deliver the improved network performance in South Wales a number of successful initiatives from the South West were replicated and implemented. Key programmes introduced during the year were:

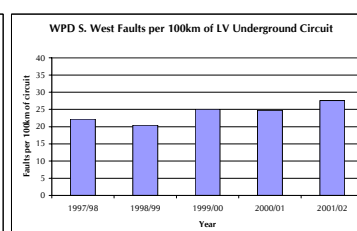
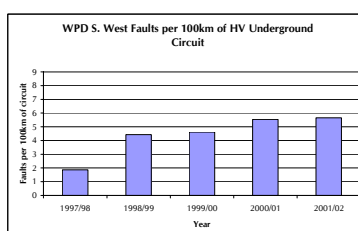
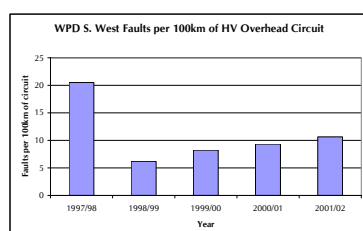
- Introduction of "Target 60", a unique range of initiatives to maximise the number of customers restored within one hour of a fault occurring
- A managed tree-trimming programme
- A targeted programme of line refurbishment
- The introduction of the ENMAC network management system

WPD South West – Quality of supply and network performance for 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	103.86	103.86	103.86	80.50
CML	84.54	84.54	84.54	62.60

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	0
GS2	Restoration of supply following a fault	0
GS3	Estimating charges for connection	0
GS4	Notice of planned interruption to supply	0
GS5	Investigation of voltage complaints	0
GS8	Making and keeping appointments	0
GS9	Notifying customers of payments owed under the standards	0

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	85.0	92.6
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	99.7
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	100.0
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	100.0
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	100.0



Commentary provided by WPD South West

Customers in WPD South West have benefited from a significant improvement in network performance between 1995 and 2000, where customer minutes lost improved by 52% and customer interruptions by 27%. Since then the focus has been on maintaining this performance and identifying areas where further improvements can be made.

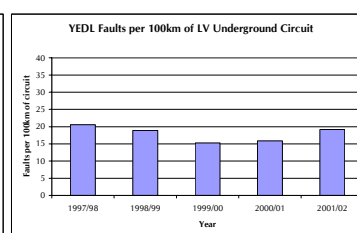
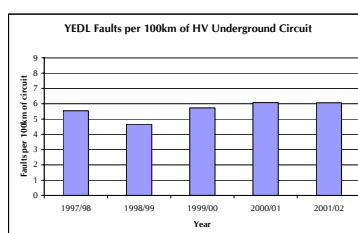
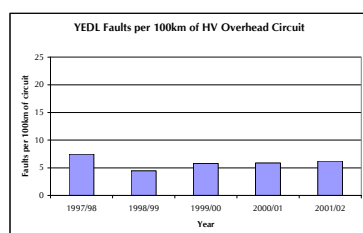
For both our Companies, we propose to continue with the initiatives that have clearly demonstrated good improvements to quality of supply to date, and will seek new opportunities for the future to allow us to continue with the trend of improving quality of supply performance.

YEDL – Quality of supply and network performance for 2001/02

	2001/02 Performance	2002/03 Targets	2003/04 Targets	2004/05 Targets
CI	78.08	84.82	84.82	84.82
CML	54.60	74.43	74.43	66.69

Guaranteed Standards		No of payments made
GS1	Respond to the failure of distributors fuse	2
GS2	Restoration of supply following a fault	49
GS3	Estimating charges for connection	0
GS4	Notice of planned interruption to supply	11
GS5	Investigation of voltage complaints	0
GS8	Making and keeping appointments	1
GS9	Notifying customers of payments owed under the standards	0

Overall Standards		Target	Performance
OS1a	Minimum % of supplies to be reconnected following faults within 3 hours	85.0	91.7
OS1b	Minimum % of supplies to be reconnected following faults within 18 hours	99.5	100.0
OS2	Minimum % of voltage faults to be corrected within 6 months	100.0	100.0
OS3a	Minimum % of domestic consumers connected within 30 working days	100.0	100.0
OS3b	Minimum % of business premises connected within 40 working days	100.0	99.7
OS4	Minimum % of customers letters to be responded to within 10 working days	100.0	100.0



Commentary provided by YEDL

The performance of the YEDL network showed a continued improvement trend for the number of interruptions to supply.

There were two reasons for this improvement - the relatively benign weather and the ongoing quality of supply improvement work. During the year we have invested over £50m in our distribution system associated with customer-related network reinforcement, the replacement of certain older assets and continuing network improvements for quality of supply.

Our investment strategy is focused on delivering improvements in a cost-effective manner with an emphasis on targeting lower-performing areas. To this end we have continued our programme of improving a minimum of 20 circuits each year. Rural areas improved include those around Ferrybridge, Hebden Bridge, Wetherby, Pocklington and parts of Wharfedale.

Two further programmes to improve the storm resilience and the protection of rural circuits have been affected by the foot and mouth crisis. Both programmes are now expected to be completed in 2002/03.

We have also continued with the programme for changing the type of earthing employed in rural areas, with the aim of reducing the number of transient interruptions experienced by customers. Installations at six main supply points were completed in the year.

Section 4 - How the Regulatory System Protects Customers

The existing regulatory framework protects customers in relation to the quality of service they receive through two main mechanisms:

Guaranteed and Overall Standards of Performance, as discussed in section 2. On 1 April 2002 Ofgem introduced new standards on multiple interruptions. The Guaranteed Standard sets out that, DNOs are required to pay compensation of £50 to any customer who suffers 4 or more power cuts that last longer than 3 hours in any 12 month period from April to March, subject to certain exemptions. The Overall Standard sets out that, DNOs are required to ensure that virtually all their customers (between 96 and 99% depending on the DNO) experience no more than 5 power cuts of 3 minutes or longer in any 12 month period April to March (subject to certain exemptions).

A Quality of Service Incentive Scheme – the Information and Incentives Project Incentive Scheme which was introduced in April 2002 provides financial incentives to DNOs with respect to the overall quality of service they deliver in the following areas:

- the number and duration of interruptions to supply;
- the quality of telephone response.

The measurement of the number and duration of interruptions was discussed in section 2. The quality of telephone response 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 4 key areas:

- (i) the politeness of the member of staff;
- (ii) their willingness to help;
- (iii) the accuracy of the information given (if information was given); and
- (iv) the usefulness of the information given (if information was given)

This sample is asked to score the DNOs on a scale of 1-5⁹ based on their experience of the telephone conversation they had with the DNO. The results of this sample are then aggregated to derive an overall score for each DNO, with the DNOs ranked according to their performance relative to other DNOs.

The customer survey is assessed over a 12-month period and as such, it is designed to be robust over a year, and not on a monthly basis. In the light of the incentive scheme being introduced in April 2002, the first full year's performance will be published as part of the 2002/03 Quality of Supply Report.

⁹ Where 5 is equal to very satisfied and 1 equal to very dissatisfied

Section 5 - Ongoing Work

Ofgem is currently carrying out work to improve the consistency of statistics on DNOs' response times for handling customer calls. Ofgem will publish proposals in this area in the next few months.

As part of the electricity distribution price control review, Ofgem is reviewing the existing quality of service arrangements to ensure that DNOs continue to be provided with appropriate incentives to deliver a good quality of service to customers.

Ofgem is considering the appropriate scope and level of the Guaranteed and Overall Standards of Performance and associated levels of compensation. For example, there may be a need to improve existing standards, set new standards or revise the exemption regime.

Ofgem is also reviewing the appropriate form and scope of the Quality of Service Incentive Scheme. Over the next twelve months Ofgem will be carrying out customer research to inform this work.

APPENDIX 1 - Distribution Network Operator Profiles

Aquila Networks plc

Aquila Networks plc serves 2.3 million customers over 13,000 sq km from Stoke on Trent to North Bristol, and from Banbury to the Welsh Borders. The service area includes the Birmingham and West Midlands conurbation, the populations of Cheltenham, Gloucester, Worcester, Hereford, Stoke and rural customers from Staffordshire to Gloucestershire.

1.3 million customers are supplied from 'urban' underground cable networks that generally provide highly reliable supplies. The company's 11,000 volts overhead-line network is, at 14,700 km, one of the longest in the UK, and its circuits serve around one million rural customers.

East Midlands Electricity Distribution plc

East Midlands Electricity is the distribution arm of Powergen, which is owned by E.On. EME is responsible for providing a reliable electricity supply to customers across an area totalling 16,000 km² from the north of Chesterfield in Derbyshire to south of Milton Keynes in Buckinghamshire, and from Tamworth in the west to the Lincolnshire coast in the east.

It operates from one central office at Pegasus Business Park at East Midlands Airport, and four Field Operating Centres at Moorgreen, Sleaford, Hinckley and Northampton.

It currently serves 2.4 million customers through a distribution network that has 24,049 km of overhead line and 44,042 km of underground cable.

EPN Distribution Limited

EPN is owned by LE Group, which is a wholly owned subsidiary of Electricite de France. EPN manages the largest distribution network in the UK and is responsible for providing a reliable electricity supply to customers across an area totalling 20,300km².

It delivers electricity to over 3.4 million customers through a network that is over 90,000km in length. Its network supplies diverse areas ranging from rural North Norfolk to high-density populations in North London.

Scottish Hydro-Electric Power Distribution Ltd

Scottish Hydro-Electric Power Distribution, part of the Scottish and Southern Energy Group, owns, maintains and operates the electricity Distribution and Transmission networks covering almost 25% of the UK landmass in central and northern Scotland, including the Western and Northern Isles. Its networks cover terrain ranging from the most remote and hostile areas in the country to the high-density populations in Aberdeen, Dundee and Perth, and from small crofts on the outlying islands to huge aluminium smelting plants, and oil and gas beaching installations.

It delivers electricity to over 600,000 customers through a 'mains' network that is over 50,000km in length, including 400km of submarine cable supplying some island communities.

S+S is a trading name of Scottish Hydro-Electric Power Distribution Ltd.

London Power Networks plc

LPN is owned by LE Group, which is a wholly owned subsidiary of Electricite de France. LPN is responsible for providing a reliable electricity supply to customers across an area totalling 667 km². The area is almost entirely urban and covers the most densely populated region of the country. It includes some of the most sensitive areas of the capital, such as the Stock Exchange, commercial banks, financial institutions, and central government offices.

LPN serves over 2 million customers through a network that is over 30,000km in length, which is almost entirely underground.

Northern Electric Distribution Ltd

NEDL distributes electricity to 1.5 million customers in North East England. Its service area comprises 14,400 square kilometres with a resident population of 3.2 million people.

The vast majority of the population live in the conurbations of Tyne and Wear, Cleveland and York, which contrast with the relatively sparsely-populated rural areas of Northumberland, Durham and North Yorkshire.

Electricity is received at a number of locations from the Grid transmission system and NEDL distributes it at voltages of up to 132,000 volts. To do this the company owns and operates over 15,000 kilometres of overhead lines and 24,000 kilometres of underground cables.

SP Distribution

SP Distribution owns the wires and equipment that distribute electricity to over 1.9 million customers in 23,000 sq.km across southern Scotland from Newport-on-Tay and Helensburgh in the north to Stranraer and Holy Island in the south.

This area comprises contrasting environments from the heavily-populated industrial and urban areas of the Clyde and Forth valley to the exposed, sparsely populated areas of the Borders and Dumfries and Galloway.

SP Power Systems Ltd ("PowerSystems"), another ScottishPower group business, is its appointed agent to operate, maintain and repair its equipment to approved standards of safety and reliability and provide an efficient service to its customers.

SEEBOARD Power Networks plc

SEEBOARD Power Networks are responsible for the distribution of electricity to 2.1 million customers across Kent, Sussex and Surrey. This involves the efficient operation and maintenance of 33,000 km of underground cable, 12,000 km of overhead line, 60,000 switches and 33,000 transformers over an area of 8,200 km².

In 2002 SEEBOARD Power Networks was acquired by LE Group as part of its acquisition of SEEBOARD plc.

Southern Electric Power Distribution plc

Southern Electric Power Distribution, part of the Scottish and Southern Energy Group, owns, maintains and operates the electricity distribution network covering 16,900 sq. km of central southern England. Its networks cover terrain ranging from the extremely rural Salisbury Plain to high-density populations in West London, and from dairy farms in Somerset to high technology companies operating 'server farms' in the Thames Valley.

It delivers electricity to over 2.7 million customers in 17 counties through a 'mains' network that is over 74,000km in length.

S + S is a trading name of Southern Electric Power Distribution plc.

SP Manweb plc

SP Manweb owns the wires and equipment that distribute electricity to over 1.4 million customers across 12,200 sq.km, stretching north-south from Southport to Aberystwyth, and east-west from Congleton to Holyhead.

This area is extremely varied, comprising the heavily-populated areas of Liverpool and industrial areas of Ellesmere Port, the resort towns of Rhyl and Llandudno, and the remote, sparsely-populated areas of Snowdonia National Park.

SP PowerSystems Ltd, another ScottishPower group business, are our appointed agent to operate, maintain and repair our equipment to approved standards of safety and reliability and provide an efficient service to our customers.

United Utilities Electricity plc

United Utilities' designated area includes 12,500 square kilometres, from Macclesfield to Carlisle and from Blackpool to Settle. This covers a diverse range of terrain and customer mix from isolated farms in Cumbria to areas of heavy industry and dense urban population in Manchester.

Within this region the company owns and operates a 58,000 kilometre distribution network which delivers 25,652 gigawatt hours of electricity annually from the National Grid to about 2.3 million domestic and business premises. The operation of a safe and secure electricity distribution network is the core of our business enabling us to provide services that make life better for our customers.

Western Power Distribution (South Wales) plc and (South West) plc

Western Power Distribution is owned by PPL Global LLC, a subsidiary of PPL Corporation of Allentown, Pennsylvania.

South Western Electricity plc operated under the SWEB brand name until 30 September 1999. Following the sale of its retail supply business on that date, the company now operates as a regional distribution business under the trading name of Western Power Distribution.

In October 2000, Western Power Distribution acquired Hyder plc, the former Welsh multi-utility company which owned the electricity distribution business serving South and West Wales.

WPD delivers electricity to 1.4m customers over a 14,400 sq kms service area in South West England, and to just over 1m customers over a 11,800 sq kms service area in South and West Wales

Yorkshire Electricity Distribution plc

YEDL distributes electricity to 2.1 million customers in Yorkshire and parts of North Lincolnshire. Its service area comprises 10,700 square kilometres with a resident population of 4.5 million people.

The YEDL area serves a mix of sparsely-populated areas, such as the Yorkshire Dales and the Lincolnshire Wolds, as well as three of the largest cities in Great Britain – Sheffield, Leeds and Bradford

Electricity is received at a number of locations from the Grid transmission system and YEDL distributes it at voltages of up to 132,000 volts. To do this the company owns and operates over 16,000 kilometres of overhead lines and 40,000 kilometres of underground cables.

APPENDIX 2 - Exemptions to Guaranteed Standards

Please note this section is a summary of the exemptions provisions. In the event of any dispute as to the application of the standards the relevant Statutory Instruments will be the definitive point of reference.

General exemptions from the guaranteed standards

Regulation 17 of the electricity standards of performance regulations sets out general exemptions that apply to all of the standards except the multiple interruption standard GS2A. Note that under GS 4, 5 and 6 the general exemptions are modified by particular provisions relating to the standard in question. It is therefore important to read each of the general exemptions in conjunction with the individual standards.¹⁰

The general exemptions are:

1. If the customer informs the distributor before the Standard deadline that he does not want the distributor to take any action or any further action.
2. If the customer agrees that action already taken by the distributor meets the requirement of the Standard. But where the distributor has promised to take further action, that action must be taken without undue delay if this exemption is to be invoked.
3. If, in order to meet the Standard, information is required to be given by the customer to the distributor, and the customer either sends the information to an address other than the one which the distributor has indicated, or (where appropriate) telephones with the information at a time outside reasonable hours as notified by the distributor.
4. It was not reasonably practicable for the distributor to have complied with the requirements because of:
 - severe weather; or
 - industrial action by the distributor's staff; or
 - an action or default by someone other than the distributor's employee or agent; or
 - an inability to gain access to relevant premises; or the likelihood that the distributor would break the law if he complied; or
 - other exceptional circumstances beyond the control of the distributor;

and the distributor had taken all reasonable steps both to prevent the circumstances from occurring and from having that effect.

5. It was reasonable to regard information from the customer as being frivolous or vexatious.

¹⁰ Statutory Instrument 2001 No. 3265 "The Electricity (Standards of Performance) Regulations 2001 and Statutory Instrument 2002 No. 742 "The Electricity (Standards of Performance) (Amendment No. 2) Regulations 2002.

6. The customer had either committed an offence under the Electricity Act 1989 or had failed to pay charges due after receiving a disconnection notice.

Exemptions specific to GS1

- The customer asked the distributor not to restore the supply.
- The fuse has not, in fact, operated so as to disconnect the supply.

Exemptions specific to GS2

- Where it was unreasonable to expect the distributor to know that the supply had been interrupted or had not been restored.
- In specified circumstances where the supply is to an island via an underwater cable, and there is no alternative means normally available to the distributor to supply premises on that island.
- The customer has not made a claim for payment within 1 month of the supply being restored.

Exemptions specific to GS2A

Any interruption arising in the following circumstances does not count as a valid interruption for the purposes of the standard:

- if the customer agrees that any action taken by the distributor within the 3 hour period, (or a promise of action made within that time and subsequently fulfilled by the distributor) is sufficient to honour the distributor's obligation;
- if the actions which might otherwise have been taken by the distributor to deal with the interruption would have led to a breach of an enactment;
- if the distributor has given the customer prior notice of its intention to interrupt the supply;
- if the interruption arose out of a failure, fault or damage to either the transmission system to which the distributor's system is connected or to a generating station connected either to that transmission system or to the distributor's system;
- if it is an interruption to which GS 1 or 2 applies;
- if the interruption arose as a result of an act or default of the supplier to the premises concerned, or of the customer;
- if the interruption arose out of an event resulting in interruption of supply for more than 500,000 customers in Great Britain; or
- if the interruption arose out of a civil emergency or act of terrorism.

Note that the provisions of Regulation 17 cannot be invoked in relation to this standard.

Exemptions specific to GS3

Exemptions may apply

- if the distributor believes that the customer's premises will form part of a development scheme comprising five or more premises; or
- to any part of a service line which is intended by the distributor to be used to provide a connection to premises other than the customer's, and in respect of which the distributor has received, or reasonably expects to receive, a notice under section 16A(1) of the Electricity Act 1989 within the following 12 months.

Exemptions specific to GS4

Only subparagraphs 2, 3 and 4 from the general exemptions above may be invoked by the distributor providing this service.

The distributor does not have to comply with the requirements of this Standard if its action to discontinue the supply is solely associated with the work on the Distributor's Fuse at the premises.

Exemptions specific to GS5

- If there are exceptional circumstances covered by the fourth of the general exemptions which mean that it is not reasonably practicable for the distributor to keep the appointment, the distributor must inform the customer at least one working day before the appointment, unless it is not reasonably practicable for it to do so.

Exemptions specific to GS8 / GS8A

The following exemptions apply to these standards:

- If there are exceptional circumstances covered by the fourth of the general exemptions which mean that it is not reasonably practicable for the distributor to keep the appointment, (but it must inform the customer at least one working day before the appointment, unless the circumstances referred to in that paragraph occur at a time when it is not reasonably practicable for it to do so).
- If the visit is in response to information or requests under GS1 or GS5.
- If the visit is in connection with cutting off the customer's electricity supply under Schedule 6 of the Electricity Act 1989.

Exemptions specific to GS9/ GS9A

If there is a genuine dispute as to whether a payment is due under the Standards.

APPENDIX 3 - TABLES

Table 3.1
Reported & Revised 2001/02 Customers Interruptions and Customer Minutes Lost

DNO	Reported 2001/02 CIs	Overall accuracy adjustment	Revised 2001/02 CIs		Reported 2001/02 CMLs	Overall accuracy adjustment	Revised 2001/02 CMLs
Aquila	119.94	3.00%	123.54		122.21	3.00%	125.87
EME	78.82	0.00%	78.82		92.73	0.00%	92.73
EPN	82.92	23.04%	102.02		67.88	18.16%	80.20
Hydro	124.71	0.00%	124.71		143.46	0.00%	143.46
LPN	35.69	8.21%	38.62		36.16	16.94%	42.28
NEDL	93.65	0.00%	93.65		87.35	3.10%	90.06
SP Distribution	76.27	0.00%	76.27		87.46	0.00%	87.46
SPN	90.88	2.65%	93.29		88.87	8.76%	96.65
Southern	99.15	4.06%	103.17		90.85	0.00%	90.85
SP Manweb	51.60	0.00%	51.60		62.52	0.00%	62.52
UU	49.36	14.39%	56.46		54.29	18.67%	64.42
WPD S. Wales	128.40	-5.98%	120.73		90.53	1.37%	91.77
WPD S. West	107.06	0.00%	107.06		85.99	0.00%	85.99
YEDL	58.70	34.23%	78.79		54.78	0.00%	54.78
Great Britain			87.40				83.70

Note: For some DNOs substantial changes were made for accuracy as new measurement systems were introduced in the course of 2001/02, for further information refer to "Audit of Incident Reporting for 2001/02 - Final Report, February 2003"

Note: Figures may differ slightly due to rounding

Note: Ofgem have agreed adjustments to the reported figures for SP Distribution and SP Manweb following verification of four of their six exceptional events claims, the adjusted incentive scheme figures are shown in Table 3.5

Table 3.2

Short Interruptions in 2001/02

Short interruptions by "causes" (including LV)	Great Britain Total	Aquila	EME	EPN	Hydro	LPN	NEDL	SP Distribution	SPN	Southern	SP Manweb	UU	WPD S. Wales	WPD S.West	YEDL
Automatic operation and restored by automatic switching	19,451,523	2,753,660	1,198,606	2,734,201	1,902,076	55,499	1,036,673	271,844	730,399	3,030,057	522,687	831,963	907,728	2,822,912	653,218
Automatic operation and restored by manual or remote switching	647,074	0	2,482	180,516	0	74,923	14,159	49,685	47,686	41,465	15,118	0	156,236	20,877	43,927
Manual or remote operation	491,102	20,603	14,891	30,713	13,146	475	176,756	48,588	80,017	12,375	4,497	0	29,723	44,003	15,315
Operation of switchgear on other connected systems	16,003	0	0	1	0	0	0	16,002	0	0	0	0	0	0	0
Total	20,605,702	2,774,263	1,215,979	2,945,431	1,915,222	130,897	1,227,588	386,119	858,102	3,083,897	542,302	831,963	1,093,687	2,887,792	712,460
Customer Numbers	27,339,320	2,299,379	2,421,506	3,381,566	673,138	2,083,617	1,510,799	1,906,498	2,112,108	2,706,336	1,433,917	2,269,503	1,041,325	1,356,895	2,142,733
Short interruptions per 100 connected customers															
Automatic operation and restored by automatic switching	71	120	49	81	283	3	69	14	35	112	36	37	87	208	30
Automatic operation and restored by manual or remote switching	2	0	0	5	0	4	1	3	2	2	1	0	15	2	2
Manual or remote operation	2	1	1	1	2	0	12	3	4	0	0	0	3	3	1
Operation of switchgear on other connected systems	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Total	75	121	50	87	285	6	81	20	41	114	38	37	105	213	33

Table 3.3

Revised 2001/02 Customer Interruptions & Customer Minutes Lost: Split by Source

Customer numbers 2001/02	Aquila	EME	EPN	Hydro	LPN	NEDL	SP Distribution	SPN	Southern	SP Manweb	UU	WPD S.Wales	WPD S. West	YEDL		GB Total
	2299379	2421506	3381566	673138	2083617	1510799	1906498	2112108	2706336	1433917	2269503	1041325	1356895	2142733		27339320
Number																
Unplanned interruptions (000's)	2,680	1,821	3,376	710	778	1,217	1,232	1,914	2,621	709	1,236	1,090	1,325	1,642		22,351
Pre-arranged interruptions (000's)	160	88	68	60	27	50	35	56	79	29	45	166	85	31		978
Incidents on National Grid Company or Transmission Companies (000's)	0	0	0	32	0	148	187	0	92	0	0	0	43	15		519
Incidents on embedded generators (000's)	0	0	5	37	0	0	0	0	0	2	0	0	0	0		44
Incidents on any other connected systems (000's)	0	0	0	0	0	0	0	0	0	0	0	1	0	0		1
Total (000's)	2,841	1,909	3,450	839	805	1,415	1,454	1,970	2,792	740	1,281	1,257	1,453	1,688		23,894
CIs	123.54	78.82	102.02	124.71	38.62	93.65	76.27	93.29	103.17	51.60	56.46	120.73	107.06	78.79		87.40
Duration																
Unplanned interruptions (000's)	248,328	196,975	252,625	85,691	81,752	120,077	154,679	190,062	222,560	82,742	133,833	77,879	98,372	111,133		2,056,707
Pre-arranged interruptions (000's)	41,095	27,575	18,291	8,810	6,343	12,611	7,438	14,081	19,853	6,693	12,343	17,658	16,125	5,822		214,741
Incidents on National Grid Company or Transmission Companies (000's)	0	0	24	965	0	3,368	4,630	0	3,462	0	0	0	2,178	431		15,057
Incidents on embedded generators (000's)	0	0	251	1,054	0	0	0	0	0	210	6	0	3	0		1,524
Incidents on any other connected systems (000's)	0	0	10	46	2	0	0	0	0	0	22	25	0	0		105
Total (000's)	289,423	224,550	271,201	96,565	88,097	136,056	166,747	204,143	245,875	89,646	146,204	95,561	116,678	117,385		2,288,133
CMLs	125.87	92.73	80.20	143.46	42.28	90.06	87.46	96.65	90.85	62.52	64.42	91.77	85.99	54.78		83.69

Note: Figures may differ slightly due to rounding

Note: Ofgem have agreed adjustments to the reported figures for SP Distribution and SP Manweb following verification of four of their six claims, the adjusted incentive scheme figures are shown in Table 3.5

Table 3.4

2001/02 Sum of Customers Interrupted & Sum of Customer Minutes Lost: Split by Voltage Level

	Aquila	EME	EPN	Hydro	LPN	NEDL	SP Distribution	SPN	Southern	SP Manweb	UU	WPD S.Wales	WPD S.West	YEDL		GB Total
Customer Numbers	2,299,379	2,421,506	3,381,566	673,138	2,083,617	1,510,799	1,906,498	2,112,108	2,706,336	1,433,917	2,269,503	1,041,325	1,356,895	2,142,733		27,339,320
Sum of number of Customers Interrupted																
132 kV (000's)	222	31	323	0	80	64	0	85	88	9	36	24	98	197		1,258
EHV (000's)	224	73	391	152	56	117	211	99	356	73	45	80	244	88		2,209
HV (000's)	1,948	1,530	2,472	551	428	905	929	1,627	1,856	555	914	1,087	914	1,105		16,821
LV (000's)	438	260	231	55	188	156	95	115	354	77	242	55	131	171		2,568
LV Services (000's)	8	15	27	12	52	24	32	45	45	24	44	10	23	113		474
Incidents on National Grid Company or Transmission Companies (000's)	0	0	0	32	0	148	187	0	92	0	0	0	43	15		519
Incidents on embedded generators (000's)	0	0	5	37	0	0	0	0	0	2	0	0	0	0		44
Incidents on any other connected systems (000's)	0	0	0	0	0	0	0	0	0	0	0	1	0	0		1
Total (000's)	2,841	1,909	3,450	839	805	1,415	1,454	1,970	2,792	740	1,281	1,257	1,453	1,688		23,894
CIs	123.54	78.82	102.02	124.71	38.62	93.65	76.27	93.29	103.17	51.60	56.46	120.73	107.06	78.79		87.40
Sum of customer minutes lost																
132 kV (000's)	4,896	1,874	10,175	0	4,097	2,017	0	4,012	5,263	124	1,189	436	1,584	3,978		39,644
EHV (000's)	10,004	5,857	16,085	19,413	980	2,651	12,847	4,348	23,563	3,295	2,884	2,277	5,795	3,734		113,734
HV (000's)	204,143	169,369	199,692	63,932	21,582	90,651	125,219	157,247	143,150	67,305	92,197	81,547	76,761	74,127		1,566,923
LV (000's)	59,110	43,815	41,708	9,675	48,594	34,231	19,233	29,096	61,798	15,078	44,551	9,870	26,056	21,634		464,449
LV Services (000's)	11,270	3,635	3,278	1,481	12,847	3,138	4,817	9,441	8,638	3,634	5,360	1,406	4,301	13,482		86,727
Incidents on National Grid Company or Transmission Companies (000's)	0	0	24	965	0	3,368	4,630	0	3,462	0	0	0	2,178	431		15,057
Incidents on embedded generators (000's)	0	0	251	1,054	0	0	0	0	0	210	6	0	3	0		1,524
Incidents on any other connected systems (000's)	0	0	10	46	2	0	0	0	0	0	22	25	0	0		105
Total (000's)	289,423	224,550	271,222	96,565	88,101	136,056	166,747	204,144	245,875	89,646	146,209	95,561	116,678	117,385		2,288,162
CMLs	125.87	92.73	80.21	143.46	42.28	90.06	87.46	96.65	90.85	62.52	64.42	91.77	85.99	54.78		83.69

Note: Figures may differ slightly due to rounding

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

Note: Ofgem have agreed adjustments to the reported figures for SP Distribution and SP Manweb following verification of four of their six claims, the adjusted incentive scheme figures are shown in Table 3.5

Table 3.5

Incentive scheme: 2001/02 Customer Interruptions & Minutes Lost as a Percentage of Respective 2004/05 Targets

DNO	2004/05 CI Target	2001/02 Incentive Scheme CIs	2001/02 Incentive Scheme CIs as % of 2004/05 Target		2004/05 CML Target	2001/02 Incentive Scheme CMLs	2001/02 Incentive Scheme CMLs as a % of 2004/05 Target
Aquila	131.00	123.54	94.3		116.90	125.87	107.7
EME	81.30	78.82	96.9		71.00	92.73	130.6
EPN	92.02	102.02	110.9		82.31	80.21	97.4
Hydro	135.10	119.87	88.7		195.80	142.10	72.6
LPN	31.82	38.62	121.4		45.03	42.28	93.9
NEDL	89.70	83.84	93.5		96.54	88.05	91.2
SP Distribution*	66.40	59.93	90.3		87.70	63.75	72.7
SPN	96.80	93.29	96.4		85.17	96.65	113.5
Southern	93.56	99.75	106.6		100.58	89.70	89.2
SP Manweb*	47.20	47.06	99.7		65.80	52.51	79.8
UU	54.80	56.45	103.0		68.20	64.41	94.4
WPD S. Wales	152.80	120.65	79.0		129.20	91.75	71.0
WPD S. West	80.50	103.86	129.0		62.60	84.54	135.0
YEDL	84.82	78.08	92.1		66.69	54.60	81.9
GB average		84.80				81.17	

*Note: SP Distribution's 2001/02 CI & CML figures were reduced as a result of 2 exceptional events

SP Manweb's 2001/02 CI & CML figures were reduced as a result of 2 exceptional events

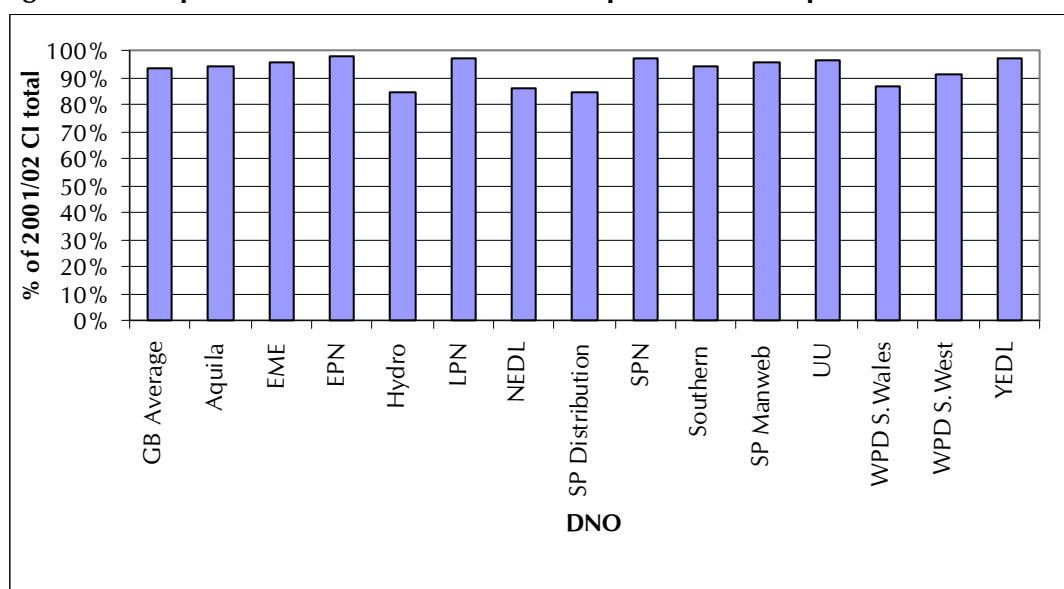
APPENDIX 4

Sources of 2001/02 Customer Interruptions (CIs) and Customer Minutes Lost (CMLs)

The number and duration of interruptions to supply can be broken down into the following five categories:

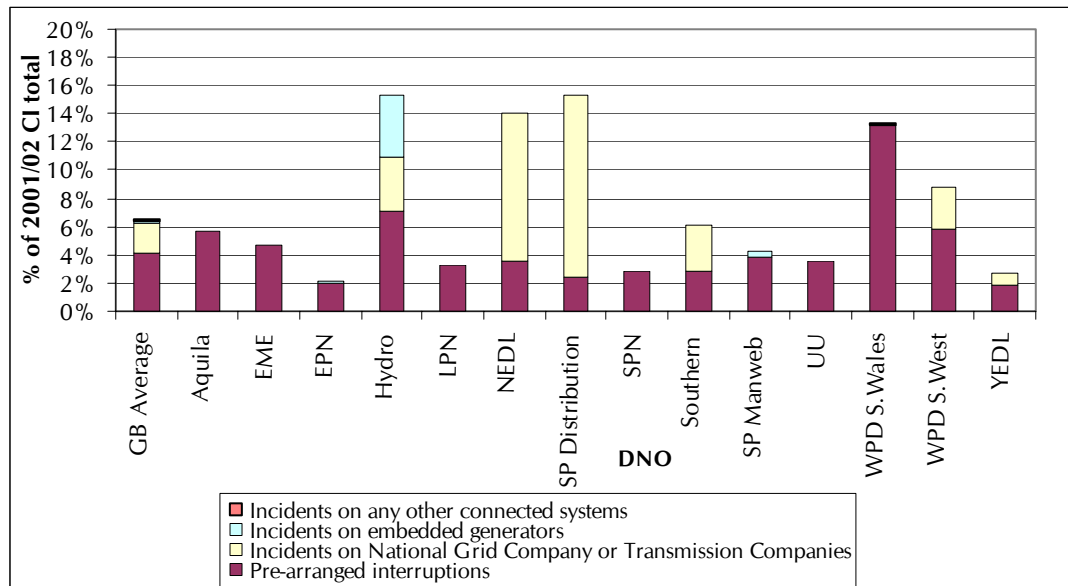
- unplanned interruptions arising on the DNO's own network;
- pre-arranged interruptions on the DNO's network;
- interruptions arising on the National Grid Company's system or the Transmission Companies' systems (in Scotland);
- interruptions arising from generators connected to the distribution network; and
- interruptions on any other connected systems.

Figure 4.1 Proportion of 2001/02 CIs due to Unplanned Interruptions¹¹



¹¹ There are no "correct" proportions of customer interruptions and customer minutes lost across the various sources and improvements in one area will, if all else remains equal, lead to higher proportions being attributed to other sources. Figures 4.1, 4.2, 4.3 and 4.4 should be considered in conjunction with the actual levels of performance shown in figures 1 and 2.

Figure 4.2 Proportion of 2001/02 CIs by Sources other than Unplanned Interruptions



Figures 4.1 and 4.2 show the sources of interruptions to supply in 2001/02. Unplanned incidents are the most significant cause of interruptions, accounting for over 80 per cent of interruptions for all DNOs and exceeding 90 per cent for 10 DNOs. 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.

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. New industry working practices and techniques, such as “hot-glove” working 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 they affect large numbers of customers. Incidents on distributed generators have historically been a low proportion of the total interruptions experienced by customers, with Scottish Hydro at seven per cent having the largest proportion of any DNO in 2001/02. This is as a consequence of the relatively high number of distributed generators in its licensed area.

Figure 4.3 Proportion of 2001/02 CMLs due to Unplanned Interruptions

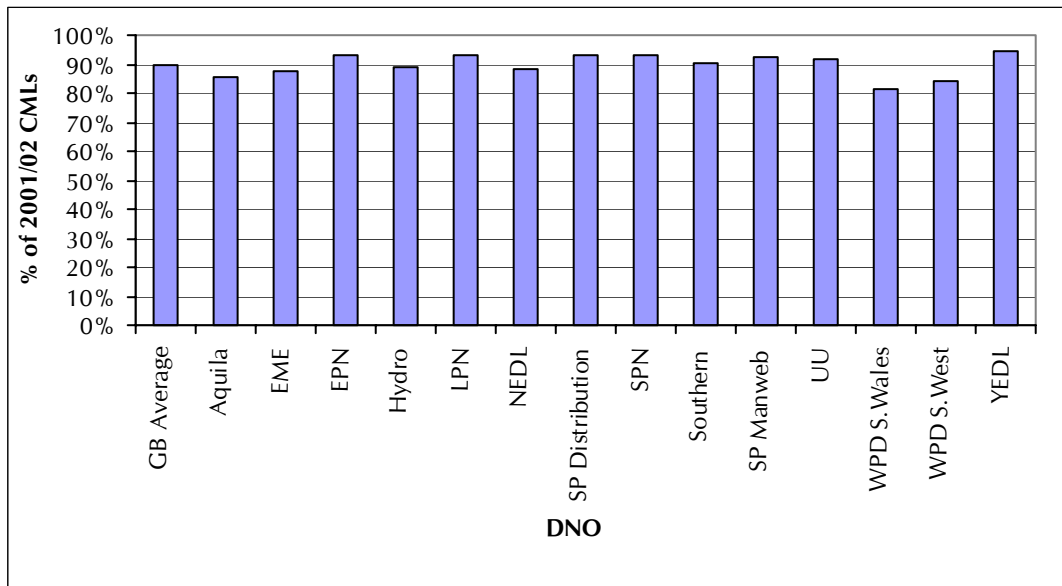
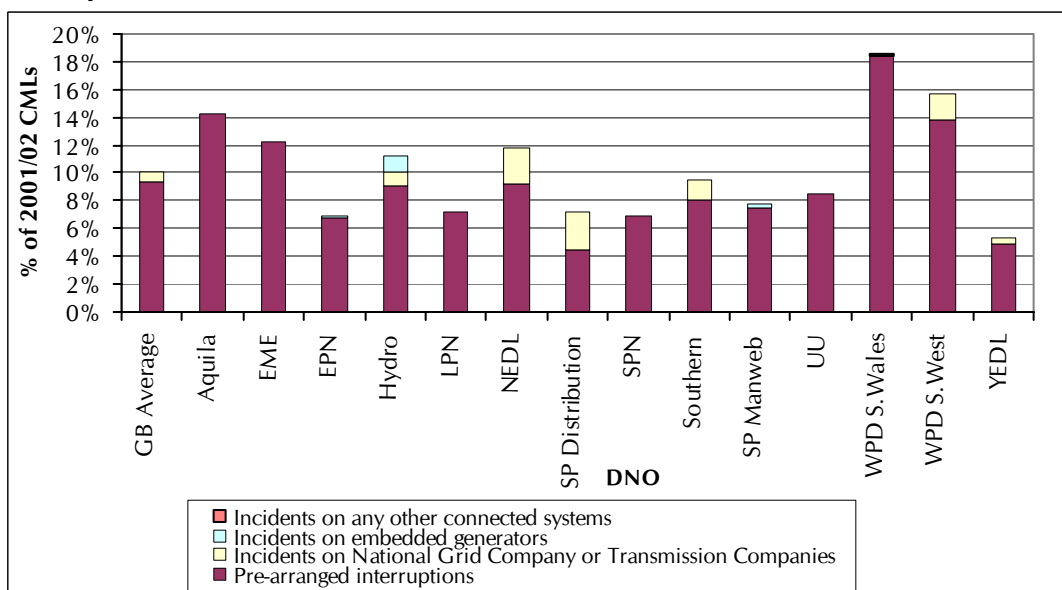


Figure 4.4 Proportion of 2001/02 CMLs by Sources other than Unplanned Interruptions



Figures 4.3 and 4.4 show the proportion of the duration of interruptions to supply in 2001/02 by source. Unplanned interruptions account for the bulk of customer minutes lost, with 8 DNOs having over 90 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.

2001/02 Customer Interruptions (CIs) and Customer Minutes Lost (CMLs): Split by Voltage Level

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 22kV but less than 132kV;
- High Voltage (HV) – voltages from 1kV up to 22kV;
- 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 4.5 Great Britain Average: Proportion of Customer Interruptions

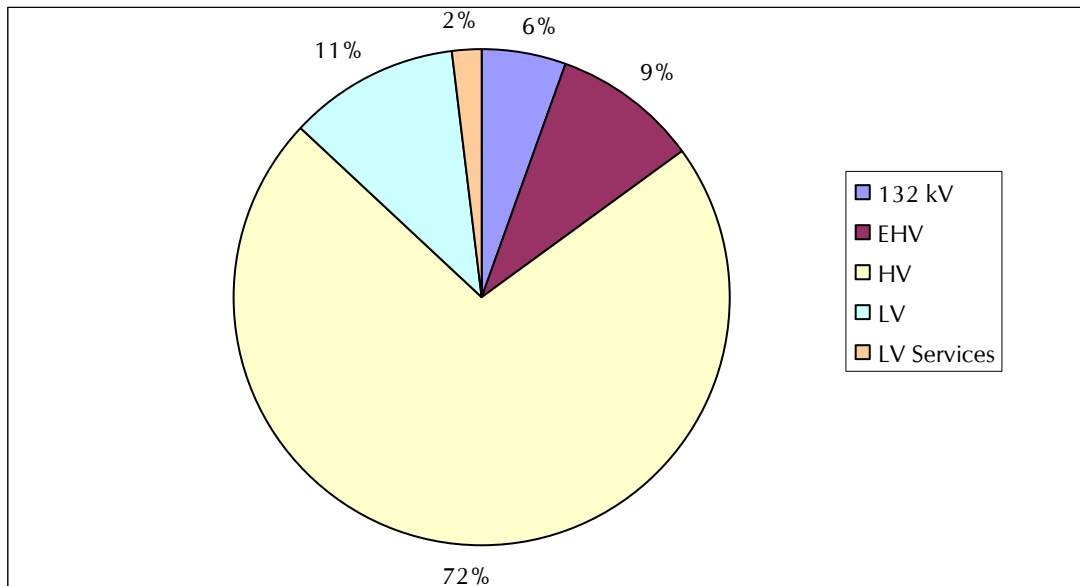
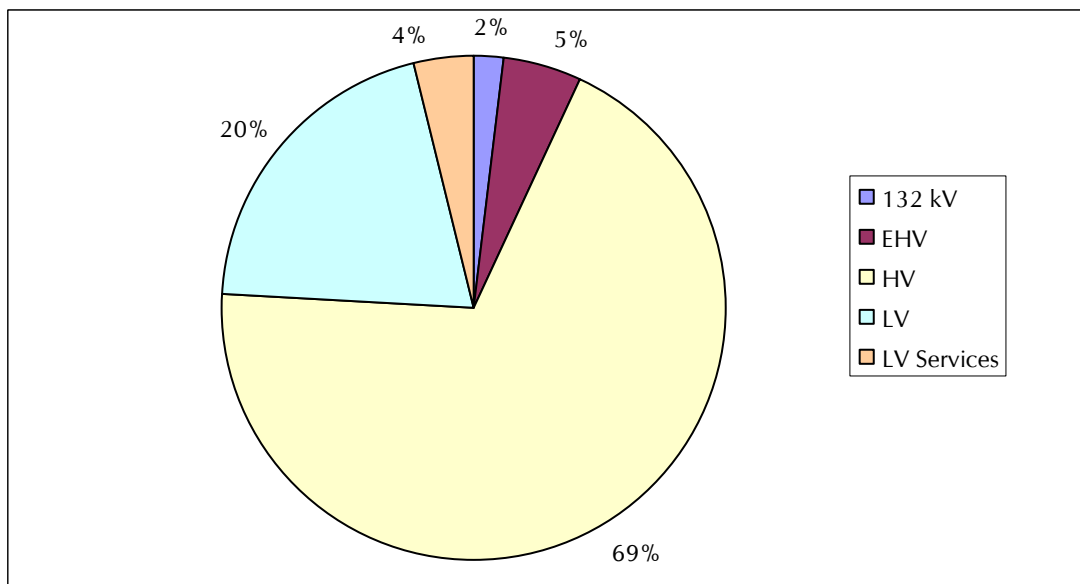


Figure 4.6 Great Britain Average: Proportion of Customer Minutes Lost



Figures 4.5 and 4.6 show on a Great Britain basis, the proportion of customer interruptions and customer minutes lost according to the voltage levels at which the faults occurred. As seen in both figures, around 70 per cent of interruptions and minutes lost nationwide were as a result of faults on the HV network. Amongst DNOs this proportion was generally typical, although LPN, with 53 per cent of its interruptions and 24.5 per cent of its minutes lost coming from HV faults, is significantly below this level as nearly its entire HV network is underground.