



2015-2023

# RIIO-ED1 Business Plan Commitments summary report Year two - 2016/2017

**WESTERN POWER  
DISTRIBUTION**

*Serving the Midlands, South West and Wales*

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## Welcome from our CEO

This report describes our achievements in the second year of the eight-year regulatory price control period (referred to as RIIO-ED1) that runs from April 2015 to the end of March 2023.

During 2016/2017 we have continued to invest in the networks and this has led to further improvements in performance. At the same time we have delivered excellent customer service - maintaining our position as the top-rated distribution network operator for the sixth year in a row.

Highlights for 2016/2017 include engaging with over 14,000 stakeholders at around 130 events, reducing our business carbon footprint, training our field staff to recognise and support vulnerable customers, and helping customers who are facing fuel poverty to save over £3 million.

Looking to the future, increases in the number of electric vehicles and the amount of energy storage and energy generated by customers connected to the distribution network mean the role of networks will be different. In response, we are using a range of innovation projects to understand changing customer needs and developing plans for becoming a Distribution System Operator.

**Robert Symons, WPD Chief Executive**



## Independent challenge - the Customer Panel's view

“The Customer Panel is a permanent group of 34 expert members who represent WPD's key stakeholder groups from large businesses to individual domestic customers. The panel meets four times a year and critically reviews WPD's current performance and provides strategic input for the future.

We focus on the services WPD provides to its domestic and business customers, seeking to influence continual improvements in day-to-day customer interactions, what happens in times of emergency and what will be required in the future.

We welcome the open and collaborative way WPD has engaged with us over the past year, embracing our advice and responding to our questions. WPD provides the Customer Panel with full transparency regarding its performance. This has enabled us to fully evaluate their delivery against all of their 76 output commitments.

We discuss and debate a broad range of activities - from the possible impact of electric vehicles in the future to response times

to power cuts. The panel is there to provide an external view to the business, from our various roles and diverse experience, probing and questioning, always focused on encouraging WPD to consistently be the best it can be for all its customers.

More detail on the way in which we support WPD to put the customer at the heart of decision making can be found within our detailed report that can be found here:

[www.westernpower.co.uk/About-us/Stakeholder-information/Customer-Panel](http://www.westernpower.co.uk/About-us/Stakeholder-information/Customer-Panel)

We have achieved a lot in the last year but we know there is more to do, especially in the support of vulnerable customers and in preparing for the changes facing the energy sector. The panel are confident we will be kept updated and intrinsically involved in the decision making along the way.”

### The Customer Panel



“ Our role is to hold WPD to account on the promises it has made and ensure those actions are delivered in a way which improves service delivery for all customers. ”







## Who we are

We are one of six distribution network operators (DNOs) who deliver electricity to homes and businesses. Our network is the largest in the UK, operating from the Lincolnshire coast, across the Midlands, South Wales and the South West to the Isles of Scilly.

We are not a supplier. We do not buy and sell electricity or directly bill customers.

Our costs account for around 16% of an average customer's yearly domestic electricity bill, which they pay to their supplier.

## What we do:

			
<b>We keep the lights on</b> by operating our network assets effectively	<b>We maintain equipment</b> so that the network is in a condition to remain reliable	<b>We fix the network</b> if equipment gets damaged or is faulty	<b>We connect customers</b> by upgrading existing networks or building new ones

## Purpose of this report

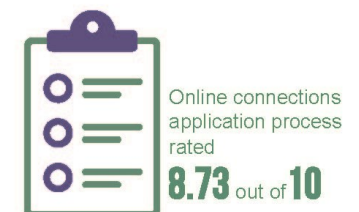
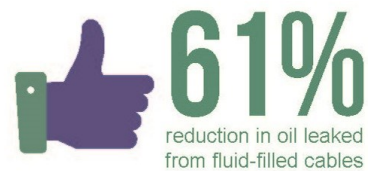
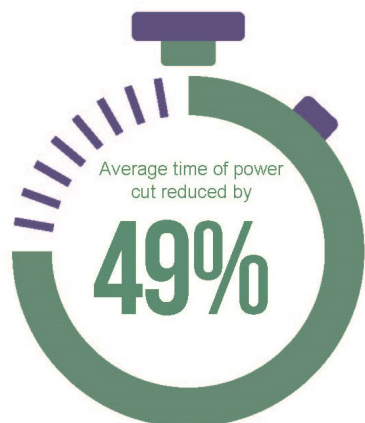
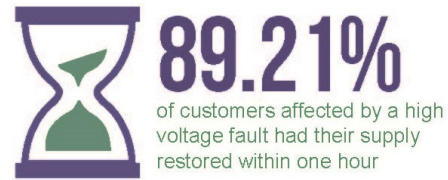
Each year we publish a report for our stakeholders, with details of our progress against our eight-year business plan for the RII0-ED1 price control (April 2015 to March 2023). In our plan we made 76 commitments in the following six categories.

- Safety - reducing risk to our staff and the general public.
- Reliability - improving the performance of our network.
- Environment - reducing our effect on the environment and supporting the Government's plans for a low carbon energy future.
- Connections - providing an efficient service for customers connecting to the network.
- Customer satisfaction - maintaining excellent customer service.
- Social obligations - supporting vulnerable customers.

Within this report you will find tables which demonstrate the commitments we made in our business plan and our performance against these during 2016/2017.



Our network, which serves 7.8 million customers, is the largest in the UK



# Output performance overview

# 6

Safety	
1. Meet health and safety law.	✓
2. Make sure we have safe clearance distances between overhead lines and structures or the ground.	✓
3. Complete inspection and maintenance programmes.	✓
4. Reduce the number of accidents.	✓
5. Contribute to safety initiatives put in place by the Energy Networks Association.	✓
6. Work with trade union representatives to promote safe practices.	✓
7. Investigate the causes of all accidents.	✓
8. Improve security at substations.	✓
9. Run electrical-safety sessions for members of the public.	✓
10. Distribute electrical-safety literature.	✓
Reliability	
11. Improve network performance to reduce power cuts.	✓
12. Reduce the time it takes us to restore electricity after a power cut.	✓
13. Reduce the number of times power cuts last more than 12 hours.	✓
14. Deliver Guaranteed Standards of Performance.	✓
15. Improve standards for customers who experience frequent power cuts.	✓
16. Install flood protection at substations.	✓
17. Speed up our programme for clearing trees that could cause a fault if they fell during a storm.	✓
18. Improve battery life at substations to last 72 hours if there is major network-wide power loss.	✓

Environment	
19. Improve the time we take to respond to customers connecting low carbon technology to our network.	--
20. Identify areas where more low carbon technology is likely to be connected.	✓
21. Increase the size of assets in areas where more low carbon technology is likely to be connected.	✓
22. Explore new options to improve the way that we manage the network.	✓
23. Improve our management of the network by implementing 'smart' solutions.	✓
24. Use larger transformers in areas where we expect use of the network to increase.	✓
25. Use larger cables in areas where we expect use of the network to increase.	✓
26. Make sure that replacement vehicles have lower CO <sub>2</sub> emissions than those they replace.	✓
27. Improve the energy efficiency of our buildings.	✓
28. Reduce the amount of waste that we send to landfill.	✓
29. Reduce our carbon footprint by 5%.	✓
30. Reduce the amount of oil that leaks from oil-filled cables.	✓
31. Reduce the amount of SF <sub>6</sub> (a greenhouse gas) that is lost from switchgear.	✓
32. Install containment 'bunds' around equipment which contains large amounts of oil.	✓
33. Replace 55km of overhead lines in AONBs with underground cables.	✓
Connections	
34. Improve the time taken to deliver a new connection by 20%.	✓
35. Provide excellent customer service so that customers rank us as the top-performing DNO.	✓
36. Carry out customer satisfaction surveys with distributed generation customers.	✓
37. Develop our processes for customers applying for a connection online.	✓
38. Provide helpful information for connection customers online.	✓
39. Host 'surgeries' every three months to help connection customers to understand our processes.	✓
40. Work with major customers to identify where our processes can be improved.	✓
41. Aim to achieve no failures of the connection Guaranteed Standards of Performance.	✓
42. Improve customer awareness of other connection providers.	✓
43. Work with other connection providers to extend the types of work that they can carry out.	✓

Key	Achieved the yearly output	✓	Output on track, some elements require further input	✓
	Output under review	--	Not met the yearly output	✗

# Output performance overview

# 7

Customer satisfaction		Social obligations	
44. Continue to be the top-performing DNO for the Broad Measure of Customer Satisfaction.	✓	60. Work with others to improve our understanding of the needs of vulnerable customers.	✓
45. Maintain our certification to show that we meet the Customer Service Excellence standard.	✓	61. Train staff to recognise the signs of customer vulnerability.	✓
46. Answer phone calls within two seconds.	✓	62. Contact vulnerable customers at least once every two years to check their details.	✓
47. Limit the number of customer calls that are abandoned before we can answer them.	✓	63. Improve the quality of the data that we hold on our Priority Service Register.	✓
48. Always provide customers with the option to talk to a member of staff when they call our contact centre.	✓	64. Co-ordinate meetings with suppliers to agree criteria for vulnerability.	✓
49. Provide a restoration time for every power cut.	✓	65. Raise awareness of our Priority Service Register.	✓
50. Call back all customers who have been in contact about a fault.	✓	66. Make 10,000 'crisis packs' available to customers who need extra support during power cuts.	✓
51. Contact customers within two days of receiving an enquiry which was not about a fault	✓	67. Contact customers who rely on a electricity for medical reasons every three hours during power cuts.	✓
52. Provide information through 'on-demand' messaging such as text messages and social media.	✓	68. Provide practical support during power cuts through organisations such as the British Red Cross.	✓
53. Develop options for customers to find information online.	✓	69. Ask for feedback from vulnerable customers to check they are happy with our service.	✓
54. Host a customer panel with our CEO four times a year.	✓	70. Develop ways of sharing information with local resilience forums.	✓
55. Continue to hold at least six stakeholder workshops each year.	✓	71. Build a database of regional agencies we can refer customers to for help with fuel poverty.	✓
56. Provide a stakeholder report every year providing an update on our actions.	✓	72. Work with our partners to develop links to and from our website so information is easy to find.	✓
57. Resolve at least 70% of complaints in one day.	✓	73. Develop joint information with the partners we work with to help customers who are facing fuel poverty.	✓
58. Aim to achieve no complaints where the Ombudsman has to get involved.	✓	74. Provide fuel poverty training to our staff who have contact with members of the public.	✓
59. Send the 'Power for Life' publication to all customers and make sure it promotes GSOPs.	✓	75. Use data analysis to help identify areas with a high concentration of vulnerable households.	✓
		76. Develop local outreach services to help customers who are facing fuel poverty.	✓

Key	Achieved the yearly output	✓	Output on track, some elements require further input	✓
	Output under review	--	Not met the yearly output	✗

# Safety - Performance summary 2016/2017

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## Meeting health and safety law

<p>(1) No improvement notices, prohibition notices and prosecutions from the Health and Safety Executive. (See note 2 below.)</p>	<p>No improvement notices were issued or prosecutions made relating to the current price control period during 2016/2017.</p> <p>We have appealed an HSE prohibition notice and will provide details of the outcome at the end of the appeals process.</p> <p>We continue to work with the HSE in relation to the investigation of the death of a member of staff as a result of an accident at work in January 2017.</p>
<p>(2) Complete work programmes to meet the Electricity, Safety, Quality and Continuity Regulations (ESQCR) 2002. ESQCR requires that overhead lines are a safe distance from either structures or the ground.</p>	<p>We have completed the programme for clearance distances to structures for West Midlands, East Midlands and South Wales. We have completed 83% of the South West programme, and have agreed to carry out the remaining work by March 2018.</p> <p>We have completed 100% of the work scheduled for 2016/2017 relating to the required ground clearance distances.</p>
<p>(3) Complete inspection and maintenance programmes every year.</p>	<p>We completed the majority of work scheduled for completion during the year. A small number of tasks could not be carried out due to access issues and we put in place appropriate plans to manage these safely.</p>

## Reducing accidents

<p>(4) Reduce our overall rate for the frequency of accidents by 10%. (See note 1 below.)</p>	<p>Our accident rate in 2016/2017 is better than the 10% improvement target set for the whole of RIIO-ED1.</p>
<p>(5) Continue to play an active part in the ENA's 'Powering Improvement' initiative, which aims to lead to improved safety performance.</p>	<p>Events designed around the ENA 'Powering Improvement' themes took place in 2016/2017, including 'Managing Occupational Ill Health Risks' and 'Asset Management'.</p>
<p>(6) Work with our trade unions to improve safety performance, including the use of more 'Behavioural Safety' initiatives.</p>	<p>We carried out further work to reinforce the principles of behavioural safety following training delivered in 2015/2016. New initiatives were raised by staff and trade union representatives.</p>
<p>(7) Investigate all accidents involving members of the public, contractors or our own staff to make sure that learning points are quickly understood and communicated. (See note 2 below.)</p>	<p>We investigated all 133 incidents that happened during the year (62 staff accidents, 56 contractor accidents and 15 significant incidents involving the public).</p>

## Substation security

<p>(8) Improve security measures at 50 substation sites to reduce the number of repeat break-ins. (See note 1 below.)</p>	<p>We upgraded security measures at 11 sites that have had repeat break-ins. We introduced temporary extra security at four sites where projects are being carried out.</p>
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## Educating the public

<p>(9) Organise and run over 1,000 educational sessions to provide safety information to over 400,000 school children. (See note 1 below.)</p>	<p>So far in RIIO-ED1, we have delivered a total of 5,748 educational sessions to 139,586 schoolchildren.</p>
<p>(10) Continue to publish literature on maintaining safety around electrical apparatus and send more than 500,000 copies of this literature to targeted landowners, businesses or leisure operators. (See note 1 below.)</p>	<p>To date in RIIO-ED1, we have issued 886,311 safety leaflets, or made these available through social media, to targeted groups.</p>

Note 1: This target is for the full eight-year RIIO-ED1 period, not for each separate year

Note 2: This target is for each year of RIIO-ED1



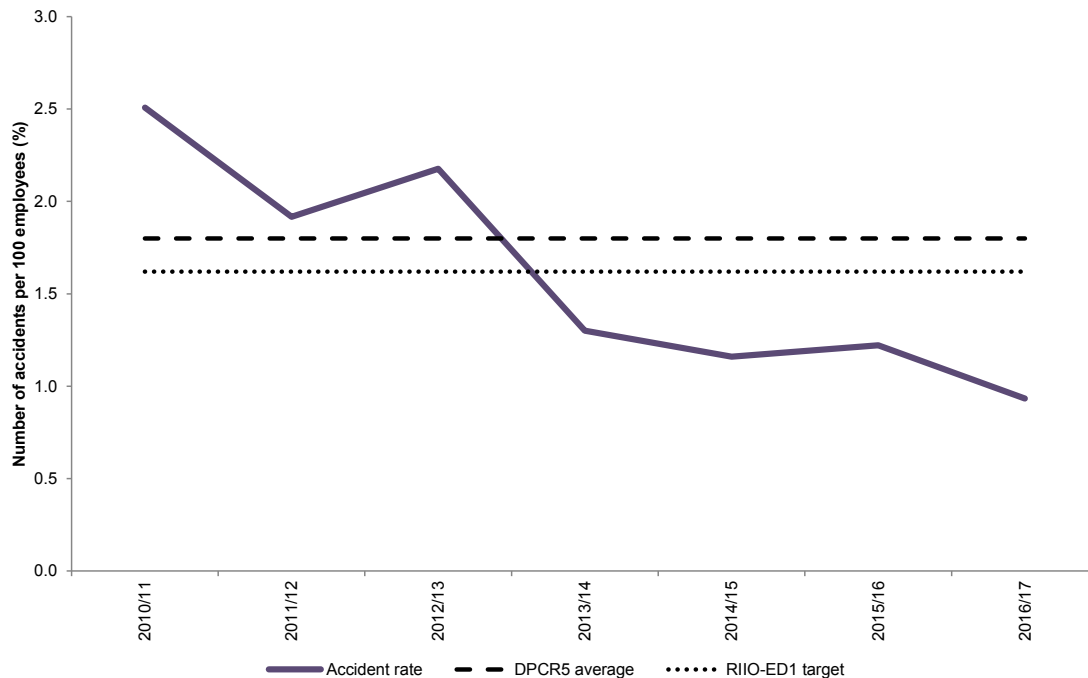
## Accident frequency rates

We monitor accident rates and are committed to achieving a 10% improvement in our performance over the course of the price control period. The number of accidents taking place each year remains low and we have already achieved our target for the end of the price control period. The accident rate for 2016/2017 was 0.93 accidents per 100 staff.

We recognise that we can always make further improvements. Every year we produce a new safety action plan to help us tackle safety issues. The plan is based on accident reports, near misses, industry incidents and any legal, regulatory or industry-wide initiatives.

We continue to focus on behavioural safety - getting staff to take responsibility for their own safety and that of others, encouraging teams to consider ways that we can improve our safety performance, and supporting individuals to challenge unsafe behaviour.

During 2016/2017 our general safety performance has been positive, but this is overshadowed by the death of a member of staff in January 2017 as a result of an accident at work. We have spoken to all operational staff to make them aware of the circumstances of this sad incident.



## Highlights of 2016/2017

- We continued to roll out a training programme for technical staff to improve awareness of safety issues.
- We introduced an iPad system for recording near-miss incidents to encourage people to share information.
- We designed a behavioural safety training module for the company induction programme.
- We designed and put in place an improved training programme for staff dealing with materials containing asbestos.
- We delivered a new mental-health awareness programme.
- We introduced set time periods for mandatory refresher training for our field-based staff.

## Educating the public about electrical safety

Children and other members of the public may not always be aware of the possible dangers of the electricity distribution network. We have committed to providing 1,000 educational sessions to 400,000 schoolchildren over the course of RIIO-ED1. We've made good progress - so far we've delivered 5,790 sessions to 140,213 schoolchildren.

We carry out educational sessions in schools, join forces with other professional services to deliver multi-agency safety education at 'Crucial Crew' and 'Lifeskills' events and lead sessions at five permanent centres, with the aim of teaching children about safety, including electrical safety.

We also attend a range of events such as county shows. These events allow us to interact with visitors of all ages, raising awareness of the importance of

behaving safely around electrical equipment.

As well as the safety sessions, we have committed to distributing 500,000 safety leaflets over the course of RIIO-ED1 and we've used a variety of methods of communication to reach 485,112 people to date.

During 2016/2017 we used Facebook to target people involved in leisure activities such as angling, sailing and hot-air ballooning, and responded to current issues such as the popularity of the game 'Pokémon Go'. Our campaign to raise awareness of the risks of playing the game around electrical equipment reached 215,000 Facebook users.



# 139,586

school children have attended electrical-safety sessions during RIIO-ED1



Crucial Crew Event, Cardiff

# Reliability - Performance summary 2016/2017

# 11

## Network performance

(11) Improve network performance by the end of RIIO-ED1 so that, on average, customers will have 16% fewer power cuts and have their electricity supplies restored 23% quicker. (See note 1 below.)	Customer interruptions have reduced by 31% and customer minutes lost have reduced by 49% from the underlying performance benchmark calculated for 2011/2012.
(12) Make sure that at least 85% of customers have their power restored within an hour of a high voltage fault happening. (See note 2 below.)	89.21% of customers had their power restored within one hour of a high voltage fault.

## Guaranteed Standards of Performance (GSOPs)

(13) Reduce by 20% the number of customers experiencing a power cut which lasts for 12 hours or more. (See note 1 below.)	The number of customers without electricity for more than 12 hours (where the GSOP applied) fell to 35, an improvement of over 99% on our 2012/2013 benchmark performance. Customers received a set payment where we failed to achieve the GSOP.
(14) Achieve no failures on all other GSOPs. (See note 2 below.)	We had no failures against most GSOP categories. However, we failed to notify 15 customers of planned interruptions to their electricity supply.

## Worst served customers

(15) Reduce by 20% the number of customers classified as worst served. (See note 1 below.)	To date, projects to reduce the number of worst served customers have been put in place for 9,844 customers. Our target for the whole of RIIO-ED1 was 6,812 customers.
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## Making our network more resilient

(16) Apply flood defences to 75 substations, reducing the risk of both damage to equipment and power cuts due to flooding. (See note 1 below.)	To date, we have installed flood defences at 27 substations. We have carried out data analysis and site surveys at a further 97 substations.
(17) Speed up the programme of tree clearance (specifically related to storm resilience) by 40%, with the aim of clearing 700km of overhead lines per year (delivering the programme five years earlier than suggested by Government guidelines). (See note 1 below.)	We met the revised targets (related to storm resilience) for clearing trees from overhead lines, clearing trees from 770km of overhead lines in 2016/2017.
(18) Improve substation battery life to last for 72 hours if there is a major, network-wide power loss. (See note 1 below.)	Protection batteries - 35% of eight-year programme complete. SCADA batteries - 25% of eight-year programme complete. Telecommunications sites - 79% of eight-year programme complete.

Note 1: This target is for the full eight-year RIIO-ED1 period, not for each separate year

Note 2 : This target is for each year of RIIO-ED1

## Continuing to improve our network reliability

Customers tell us that network reliability is very important to them. Over the eight-year period of RIIO-ED1 we have set ourselves challenging targets to reduce the number of power cuts that our customers experience and the length of time these power cuts last.

We reduce the number of faults that happen on our network by regularly inspecting and maintaining equipment, replacing equipment

which is in poor condition, reinforcing the network to make sure that it can cope with the demands placed on it and clearing trees to prevent them from coming into contact with equipment.

We reduce the number of customers affected by power cuts by using automation to redirect supplies and we reduce the time power cuts last by promoting a culture which

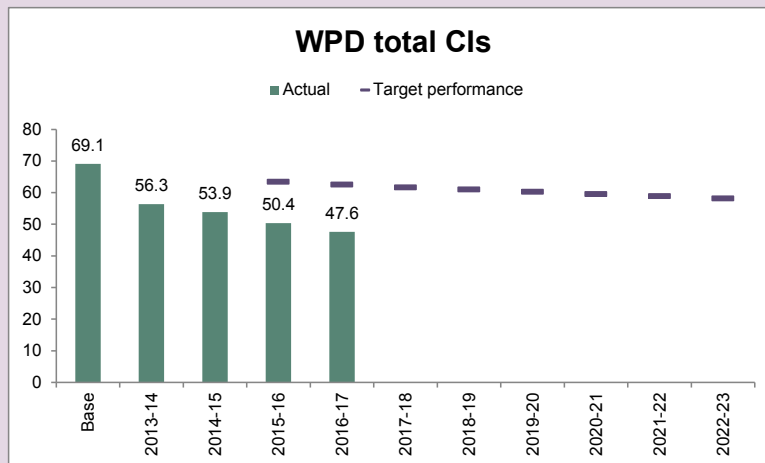
prioritises restoring customers' electricity supply quickly.

All of these elements mean that we continue to improve the reliability of our service for our customers.

Two of our key performance indicators are explained below.

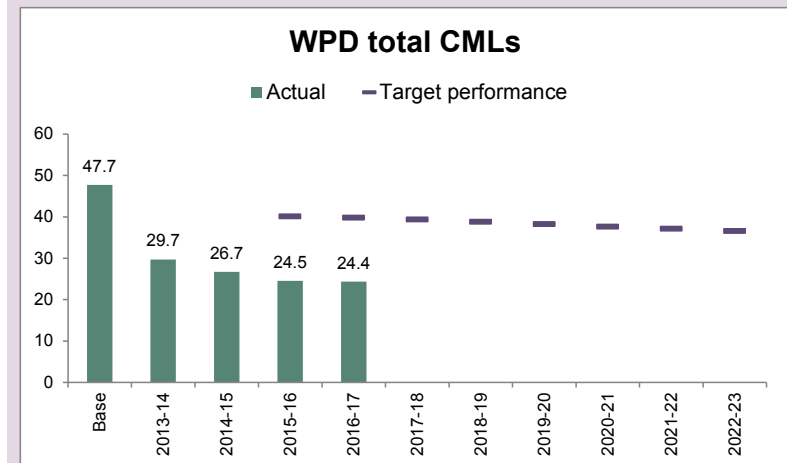
### Customer interruptions (CIs)

We measure the average number of power cuts per 100 customers. We are already beating the target we agreed to deliver by the end of RIIO-ED1 - achieving a 31% improvement on our benchmark performance.



### Customer minutes lost (CMLs)

We measure the average length of time that each customer is without power. We have beaten our targets by reducing the amount of time power cuts last by 49% on our benchmark performance.





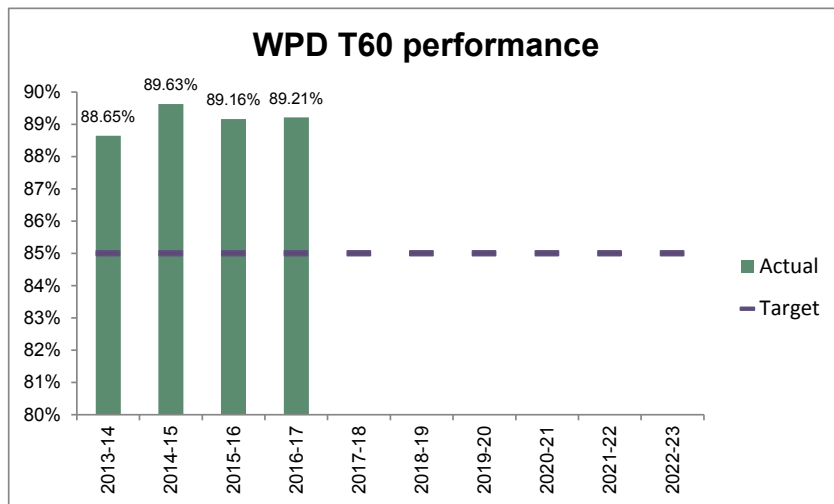
## Beating our restoration targets

We have an initiative called 'Target 60' under which we have committed to making sure that over 85% of customers have their electricity supply restored within one hour when there is a high voltage (HV) fault. We continue to beat this target as shown below.

When there is a fault on the HV network, engineers in our control centres are automatically notified and they restore most electricity supplies immediately using remotely controlled switches to redirect the route of electricity.

In many cases, computer-controlled sequence switching works straight away to restore large blocks of customers. We will also send staff to the site of the fault to carry out local switching. Our priority is to get our teams to the source of the problem and restore customers' electricity supplies.

Clear management focus on restoring electricity supplies quickly has led to industry-leading performance in this area of our work.



## Using innovation to maintain customers' electricity supply

In 2016/2017 we invested in new equipment which will allow us to identify the location of faults on the low voltage network before they have a negative effect on customers.

This innovative new equipment monitors transient faults (faults which keep happening but are not permanent). The equipment collects information from these transient faults which can then be analysed to identify the source of the problem. This allows us to remove these transient faults before they become a permanent fault affecting customer supplies.

We have trained staff to use the equipment, and will initially focus on using the equipment in areas of our network which have higher levels of transient faults.



# Environment - Performance summary 2016/2017

# 14

## Make it possible for more people to use low carbon technologies (LCTs)

(19) Improve by 20% the time taken to provide a response to customers who want to use LCTs. (See note 1 below.)	We have introduced new processes to allow us to report on LCT response times from 2017/2018 onwards.
(20) Identify LCT hotspots using information from smart meters, expert organisations and local authorities, and use this information when making decisions.	Information on the location of LCT hotspots has been added to our systems.
(21) Selectively replace assets using larger assets in areas where more LCTs may be connected to our network.	We carried out 34 asset replacement projects, using larger assets, as a result of using information about LCT hotspots.
(22) Reduce costs for future customers by developing smart solutions to provide alternative and innovative techniques for managing our network.	We had 25 innovation projects in progress during the year.
(23) Provide additional network capacity by using traditional or 'smart' methods.	We reached agreement with stakeholders to speed up the roll-out of active network management zones to allow for alternative connections. We issued 126 alternative connection quotations and connected 17 sites.

## Reduce technical network losses

(24) Install oversized transformers when replacing assets in areas where demand for power may become higher than our equipment can cope with.	We installed 30 oversized transformers.
(25) Use larger cables when installing new network in LCT hotspots.	We installed 337 metres of larger cable in LCT hotspots.

Note 1: This target is for the full eight-year RIIO-ED1 period, not for each separate year

Note 2 : This target is for each year of RIIO-ED1

## Reduce the carbon footprint of the business

(26) Make sure all replacement vehicles have lower CO <sub>2</sub> emissions than those they are replacing.	We have procurement processes in place to make sure that replacement vehicles have lower emissions. We are trialling the use of alternative fuels in work vehicles.
(27) Make sure all new or substantially refurbished buildings meet, as a minimum, the 'excellent' standard under the Building Research Establishment Environmental Assessment Method (BREEAM). (See note 2 below.)	No new builds or refurbishments were assessed in 2016/2017.
(28) Reduce the amount of waste sent to landfill by 20% over the first two years of RIIO-ED1 and 5% per year after this.	We have achieved a reduction of over 20% in the amount of waste sent to landfill over the first two years of RIIO-ED1 and are on track to achieve our ongoing targets.
(29) Reduce our carbon footprint by 5%. (See note 1 below.)	Our business carbon footprint has reduced by 4% since 2012/2013. We have beaten our in-year target.

## Reduce the environmental risk of leaks from equipment

(30) Reduce by 75% the amount of oil lost through leaks from oil-filled cables. (See note 1 below.)	To date, the amount of oil lost from oil-filled cables has reduced by 61% from our benchmark performance.
(31) Reduce by 17% the amount of SF <sub>6</sub> gas that is lost from switchgear. (See note 1 below.)	The amount of SF <sub>6</sub> gas lost as a percentage of the total amount of SF <sub>6</sub> used on our network has reduced from 0.59% in 2015/2016 to 0.31% in 2016/2017. We have achieved our in-year target.
(32) Install effective oil containment 'bunds' around plant containing high volumes of oil. (See note 1 below.)	We have completed work on 94 bunds so far in RIIO-ED1 - this includes both new and refurbished bunds.

## Improve appearance in National Parks and Areas of Outstanding Natural Beauty (AONBs)

(33) Replace 55km of overhead lines in National Parks and AONBs with underground cables. (See note 1 below.)	To date during RIIO-ED1, we have replaced 13.59km of overhead lines with underground cables.
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## Planning for the future of electricity networks

We are committed to building an energy system which meets the future needs of customers.

The nature of the energy sector is changing as a result of developments such as growth of generation connected to the distribution networks, intermittent supplies of electricity (generated, for example, by solar and wind), technological developments such as energy storage, and increasing customer interest in technologies such as electric vehicles and heat pumps.

As a result, the traditional way of transferring electricity from large power stations to homes

and businesses needs to become more flexible to cope with these changes.

We have started to move away from our traditional, passive role as a Distribution Network Operator towards becoming a Distribution System Operator, with increasing responsibility for forecasting energy production and use, along with balancing the demands and generation on our network.

To help with this change we are investing in industry-leading innovation projects to explore and test new ways of managing the network.

## Using innovation to support customer connections to the network

We offer customers who are generating electricity an 'alternative connection' when there is not enough capacity on the network to allow a standard, unrestricted, generation connection.



# 126

Alternative connection quotations issued during 2016/2017

Developed from an innovation project, these connections use a variety of techniques to restrict the output from the source of customer electricity generation when there is limited capacity available on our network.

These arrangements allow faster connections and avoid the costs that would otherwise be involved in reinforcing the network.



## 2016/2017 Innovation highlights

We have launched two significant new innovation projects in 2016/2017.

- 'Car Connect - Electric Nation'. This project will look at the possible effect on the network of the growth of plug-in (electric) vehicles, and will trial the use of 'smart' chargers that allow DNOs to manage the flow of power across the network by controlling when customer chargers are switched on.
- In the past, the low voltage network has had limited monitoring. Our 'OpenLV' project will use a substation 'intelligence' system which will allow us to monitor the real-time state of the network while looking at ways to actively manage the network.  
  
The project will also look at ways of encouraging communities to understand how their energy use affects the electricity distribution network.

## Managing technical losses on the network

The amount of energy that enters an electricity network is more than the amount delivered to customers. The main reason for this is that an electricity network uses energy while delivering power to customers. This is known as a ‘technical loss’.

The environmental effect of this is that more electrical energy has to be generated to deal with the effect of the losses. In line with our licence obligations we must keep losses as low as reasonably possible.

We publish an updated Losses Strategy every year, taking account of new developments and feedback from stakeholders.

Our approach to reducing technical losses on the network is based on a

combination of methods, including replacing those assets which have high losses and developing our approach to network planning to make sure that methods for reducing losses are included in the design of the network.

We use innovation projects to build our understanding of how and when losses happen and to make sure that we are at the forefront of improvements in technology that help us to reduce technical losses.

A copy of our Losses Strategy is available on our website at:

[www.westernpower.co.uk/docs/Innovation-and-Low-Carbon/Losses-strategy/WPD-Losses-Strategy-Report-2017](http://www.westernpower.co.uk/docs/Innovation-and-Low-Carbon/Losses-strategy/WPD-Losses-Strategy-Report-2017)



We replaced 457 transformers dating from before 1958



We issued a revised Losses Strategy

## Our actions to deal with losses during RIIO-ED1

- We will replace ground-mounted transformers dating from before 1958. These transformers were built to a range of designs and specifications before the current, more challenging loss standards were introduced.
- We will no longer use small ground-mounted and pole-mounted transformers. Using smaller transformers results in higher losses when compared with larger transformers carrying the same load.
- We will use larger transformers and cables in areas where electricity load is expected to be higher as a result of an increase in the amount of low carbon technology.
- We will continue to work with stakeholders and will hold regular events to keep them informed and to allow us to gain valuable feedback on our approach.



# Connections - Performance summary 2016/2017

# 17

## Provide a faster and more efficient connections service

(34) Improve the overall time taken to deliver a connection by 20%. (See note 1 below.)	We achieved Ofgem's targets for 'time to quote' and 'time to connect' for LVSSA (single domestic connections) and LVSSB customers (two to four domestic connections and single small commercial connection projects).
(35) Provide excellent customer service so that customers continue to rank us as the top-performing DNO group in customer satisfaction surveys. (See note 2 below.)	We are the top-performing DNO for the Connections Customer Survey in Ofgem's Broad Measure of Customer Satisfaction, scoring an average of 8.73 out of 10 across our four licence areas.
(36) Carry out surveys with distributed generation customers to find out if they are satisfied with our service and identify where we could improve.	We achieved a score of 8.74 out of 10 for distributed generation customer satisfaction surveys. We have specified a range of improvements within our work plan for the Incentive on Connections Engagement (ICE).

## Improve communication with customers

(37) Develop and improve the way we process online connection applications and make it easier for customers to track the progress of their application online.	We have made amendments to our online connections information in line with stakeholder requirements. These have been published in our ICE work plan.
(38) Make sure that the information we provide in documents and online is effective.	We achieved a satisfaction score of 8.73 out of 10 from customers using our online application service.

## Improve our engagement with major customers

(39) Host 'surgeries' every three months to help connection customers to understand our processes.	22 customers attended surgeries across our four licence areas and we supported a further six customers through phone calls or individual meetings.
(40) Work with major customers to identify where our processes can be improved and quickly put in place any changes.	We engaged with over 4,700 stakeholders through events and over 2,000 through customer satisfaction surveys. The actions in our ICE work plan are based on suggestions we received from these events and surveys.

## Guaranteed Standards of Performance (GSOPs)

(41) Aim to achieve no failures of the connection GSOPs. (See note 2 below.)	There were no failures against the connection Guaranteed Standards of Performance during 2016/2017.
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## Further developing a competitive market

(42) Improve customer awareness of other connection providers and regularly check that customers understand the options available to them.	We carry out a yearly survey to measure customer awareness of other providers. The 2016/2017 survey showed that 82% of customers who had a new connection were aware of other providers. This was an increase from 2015/2016, when this figure was 77%.
(43) Work with other connection providers to extend the type of work they can carry out, including high voltage and reinforcement work.	Trials are underway to extend the work that our competitors can carry out to include HV work. We are using feedback from stakeholders to improve our processes.

Note 1: This target is for the full eight-year RIIO-ED1 period, not for each separate year

Note 2: This target is for each year of RIIO-ED1

## Providing a fast and efficient connections service

The overall speed of connection to the network is important for customers and we measure our performance against Ofgem targets for minor connection customers - this category includes single domestic connections (referred to as LVSSA) and projects which require two to four domestic connections or a small commercial connection which doesn't need reinforcement work (referred to as LVSSB).

The targets measure the time taken to provide a quote and, once the quote is accepted, the time taken to provide the connection.

Our performance for 2016/2017 is shown below. We have outperformed all the targets.

Minor connections	Time to quote (average number of days)		Time to connect (average number of days)	
	LVSSA	LVSSB	LVSSA	LVSSB
West Midlands	4.52	6.08	37.18	47.50
East Midlands	3.48	4.73	34.40	45.78
South Wales	4.30	5.78	33.76	42.55
South West	5.16	5.86	36.53	43.39
<b>Ofgem target</b>	<b>8.21</b>	<b>11.73</b>	<b>42.08</b>	<b>52.70</b>

We carry out regular reviews of our processes across all connection types to make sure that timescales are as short as possible and that we provide the services customers want.

In 2016/2017 we have improved the information that is available to customers before they apply for a connection, improved the systems used to make an application and developed clear processes for each stage.

There is more information on the work that we are doing to improve our connections service in our work plan for the Incentive on Connections Engagement (ICE). This is available on our website at:

[www.westernpower.co.uk/Connections/ICE](http://www.westernpower.co.uk/Connections/ICE)

## No failures against Ofgem's Guaranteed Standards of Performance for connections

The standard of the service that we provide is measured against Ofgem's Guaranteed Standards of Performance for connections.

These standards set minimum levels of service that customers should expect and specify payments that a customer will receive if a standard is not met. There are 30 standards covering all aspects of our connections work.

We voluntarily double the value of the payments we make for any failures - with the aim of driving exceptional performance.

We set ourselves the challenging target of no failures against the guaranteed standards during RII0-ED1.

During 2016/2017 we achieved our target, having had only four failures in 2015/2016.

We achieved this excellent performance by making sure that staff are familiar with the standards and by using a variety of monitoring approaches to make sure we meet the standards.

## Assessing levels of customer satisfaction

We assess the satisfaction of connections customers through Ofgem’s Broad Measure of Customer Satisfaction (BMCS). Part of the BMCS includes a customer satisfaction survey for customers who need a minor connection.

We carry out two further surveys to test the opinions of customers who need major connections and distributed generation customers. For 2016/2017 we achieved over 8.5 out of 10 for all three customer groups.

8.73

BMCS (minor connections)

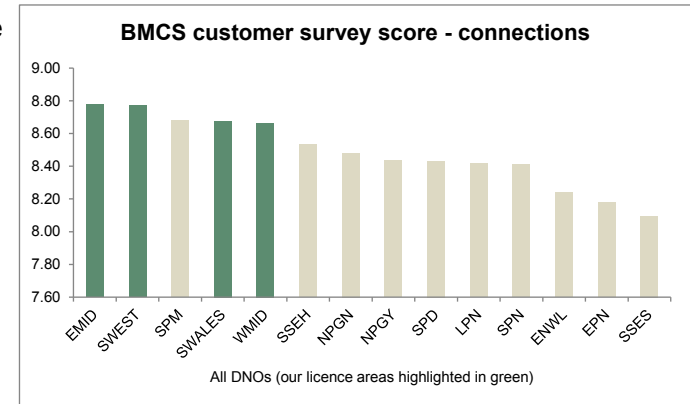
8.51

Major connections

8.74

Distributed generation

Our performance compared with that of the other DNOs continues to show the benefit of our positive approach to customer service.



## Listening to our customers

We regularly hold stakeholder events so that our connections customers can help us to identify possible improvements to our processes. During 2016/2017 we engaged with over 4,700 stakeholders through a variety of events, including workshops for distributed generation customers and community energy events. We make sure that our work with stakeholders is purposeful. Some of the changes that we have put in place as a result of feedback in 2016/2017 are set out below.

- We introduced a new Distributed Generation Owner Operator Forum, focusing on the information these stakeholders need from us in order to plan for any day-to-day actions we take that may affect their operations.
- We provided a senior manager contact for major customers (based on volumes of activity and the type of interaction customers have with us).
- We delivered a seminar aimed at raising awareness of our processes for allowing independent connection providers to choose their own point of connection to the network.
- We released three online videos, providing a straightforward guide to new and innovative connection arrangements.

# Customer satisfaction - Performance summary 2016/2017

# 20

## Customer service

(44) Continue to be the top-performing DNO group across all elements of the Broad Measure of Customer Satisfaction. (See note 2 below.)	We achieved the top four scores for overall customer satisfaction across all of the DNOs. This overall rating combines results of the three surveys for supply interruptions, connections and general enquiries.
(45) Maintain certification to show that we meet the Customer Service Excellence standard. (See note 2 below.)	We were awarded 'Compliance Plus' status for 38 of the 57 standards. This meant that, for the second year running, we were the highest-scoring organisation out of all those accredited.

## Telephone response

(46) Respond to phone calls quickly, answering them within two seconds. (See note 2 below.)	Our average response time for customer calls was 1.66 seconds.
(47) Limit the number of calls that are abandoned before we can answer them to less than 1% (See note 2 below.)	Only 0.19% of calls were abandoned.
(48) Always provide customers with the option to talk to a member of staff when they call our contact centre.	Our systems allow us to make sure that customers are always provided with the option to talk to a member of staff.

## Communication with customers

(49) Provide a restoration time for every power cut. (See note 2 below.)	All power cuts have an estimated restoration time which is updated as further information is provided by field teams.
(50) Call back all customers who have been in contact about a fault. (See note 2 below.)	We called back 99.8% of customers who contacted us about a fault.
(51) Contact customers within two days of receiving an enquiry which was not about a fault. (See note 2 below.)	We contacted 99.7% of customers who contacted us with an enquiry which was not about a fault within two days.
(52) Provide 'on-demand' messaging through text and social media for customers who want to be kept informed in other ways, rather than a phone call.	We provided on-demand messaging through text and social media and we added LinkedIn to our communication methods in 2016/2017. We sent 658,107 text messages during high voltage power cuts.
(53) Develop 'self-service' options for customers to find information online.	We hosted 24,537 webchat conversations, our app for reporting power cuts was downloaded 4,823 times and we introduced new storm bulletins for customers who registered for updates.

## Involving stakeholders

(54) Continue to host a customer panel where our CEO will meet with our expert stakeholders four times a year.	Our CEO met with the customer panel four times during the year.
(55) Continue to host at least six stakeholder workshops each year.	We hosted six general sessions, attended by 270 stakeholders across our licence areas.
(56) Continue to produce a stakeholder report every year providing an update on the actions we have taken as a result of stakeholder involvement.	The yearly Business Plan Commitments report and this summary report replace the stakeholder report.

## Complaints

(57) Resolve at least 70% of complaints within one day. (See note 2 below.)	We resolved 84% of complaints within one day.
(58) Continue to have a target of no complaints where the Ombudsman has to get involved. (See note 2 below.)	One complaint was referred to the Ombudsman. Following an investigation, the Ombudsman found in our favour.

## Guaranteed Standards of Performance awareness

(59) Continue to send the 'Power for Life' publication to all 7.8 million customers and make sure it promotes the GSOPs. (See note 2 below.)	We issued 'Power for Life' to all 7.8 million customers in September 2016. It included information on the GSOPs.
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Note 1: This target is for the full eight-year RIIO-ED1 period, not for each separate year

Note 2 : This target is for each year of RIIO-ED1



## Customer satisfaction survey results

### Independent assessment

To gain an additional independent view of our performance, we are assessed against the Government's **Customer Service Excellence Standard**.

In 2016/2017, for the second year running, we were the highest-scoring organisation out of the 237 companies who were assessed against the standard.

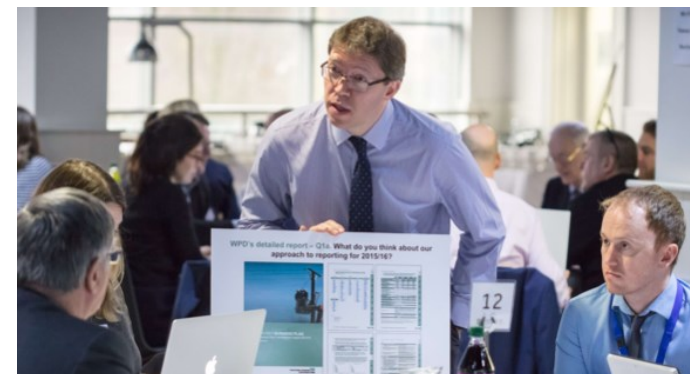
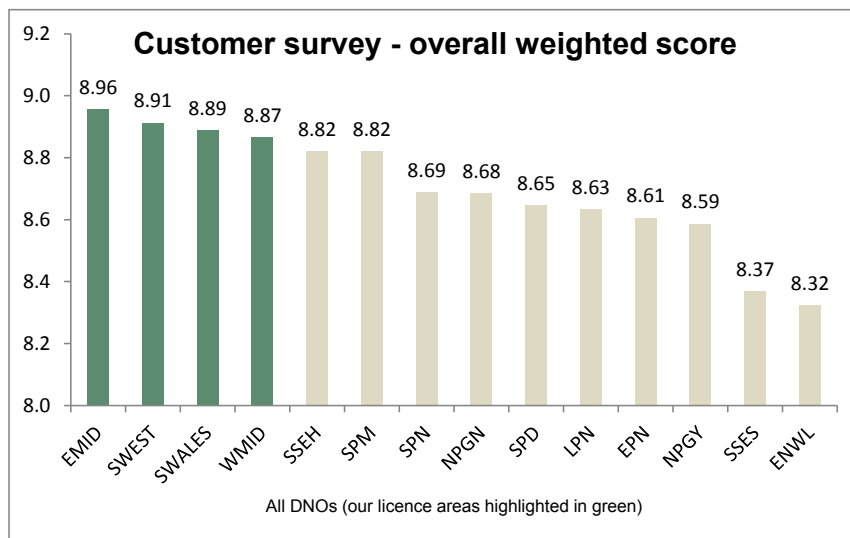
Every year a random selection of our customers are surveyed by an independent survey company to find out how satisfied they are with the service we provide. This is part of Ofgem's Broad Measure of Customer Satisfaction.

Customers are asked for feedback relating to supply interruptions, connections and general enquiries.

The individual scores from these three categories can be combined to produce an overall satisfaction score out of 10.

For 2016/2017, our four licence areas were rated in the top four positions when compared with the other electricity distribution network operators.

This makes us 'number one' for customer satisfaction.



## Engaging with stakeholders

We involve stakeholders to make sure that our decisions are justified and meet the needs and priorities of our customers. During 2016/2017 we engaged with over 14,000 stakeholders at around 130 events.

At our annual general stakeholder workshops we gain feedback on our activities. The six sessions we held in January 2017 resulted in 39 new actions, including:

- speeding up the roll-out of active network management zones (giving us more flexible control over the network);
- amendments to our proposed data privacy plan for information collected from smart meters; and
- expanding our school-safety education programme to include information on smart networks and energy efficiency.

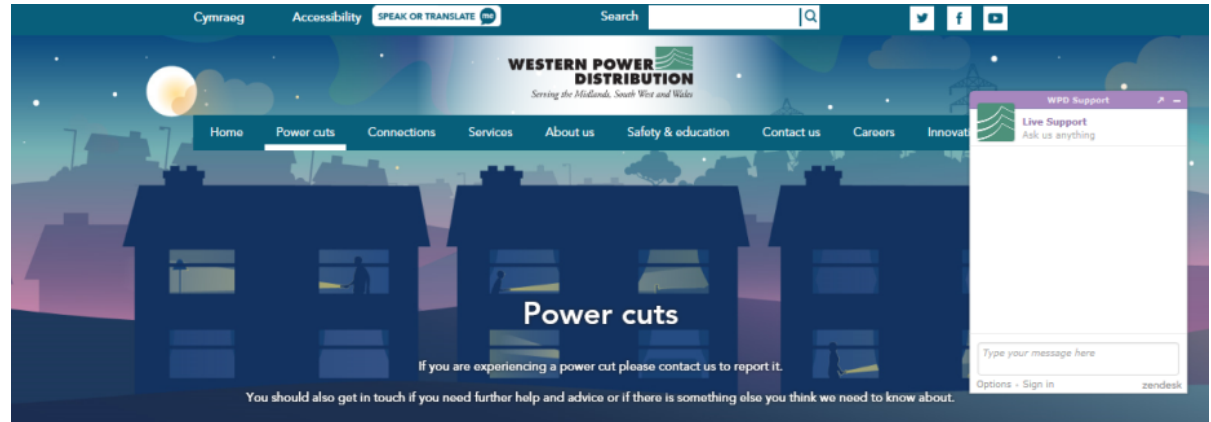
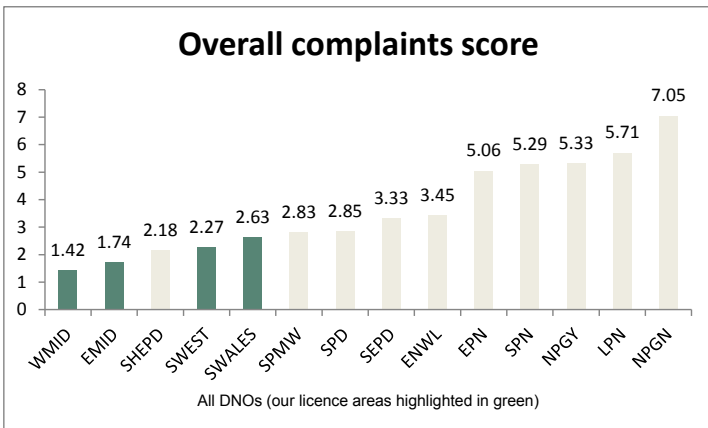
## Resolving complaints

We try to get things right first time, but sometimes things can go wrong.

When we do receive complaints we treat them with urgency and aim to deal with them to the customer’s full satisfaction as quickly as possible. During 2016/2017 we resolved 84% of complaints in one day.

Ofgem assesses how we handle customer complaints, taking into account the number of complaints resolved in one day, complaints which were not settled after 31 days, repeat complaints and the number of complaints where the Ombudsman has decided against the DNO. Ofgem combines scores from all of these elements and assesses each DNO’s performance against a target of 8.33.

We are beating this target and the results below show that we have some of the lowest complaints scores across all of the DNOs.



## Developing communication options for customers

We are committed to developing new communication methods to allow our customers to access information quickly and easily without necessarily having to call our contact centres.

On every page of our website, customers can access a ‘webchat’ facility which allows them to communicate online, in real time, with a member of staff. The webchat facility has proved popular, with 24,537 ‘chats’ taking place in 2016/2017. On average, 94.7% of customers are satisfied with the information they receive.

In 2016/2017 we relaunched our app for reporting power cuts and it now also allows customers to register for the Priority Service Register. The app

has been downloaded 4,823 times and customers can use it to either report a power cut or be told about power cuts already reported in their postcode area.

Customers can register to receive storm bulletins by email, which we send before a predicted storm, during the storm and after the storm. We inform customers of the latest weather conditions, the areas affected, the number of customers without power and the steps we have taken to restore their power. We launched the bulletins in January 2017 when the approach of Storm Angus was predicted. By the end of March 2017, 3,559 customers had registered for the service.

# Social obligations - Performance summary 2016/2017

# 23

## Improving understanding of vulnerability

(60) Work with expert partners to improve our understanding of the needs of vulnerable customers.	We worked with a wide range of expert partners and were accredited with the British Standards Institute (standard BS18477), which specifies requirements for responding to vulnerable customers.
(61) Train staff to recognise the signs of vulnerability.	We provided specialist training to Priority Service Register (PSR) teams and contact centre staff. We completed training for field staff on supporting vulnerable customers in three of the four licence areas.

## Improving the services provided for vulnerable customers

(65) Raise awareness of the Priority Service Register.	We worked with a range of organisations, including water utilities and gas distribution networks, to raise awareness of the PSR.
(66) Make 10,000 crisis packs available. (See note 1 below.)	To date, we have issued 3,580 crisis packs over the RIIO-ED1 period. We have a new process for field staff to issue packs.
(67) Contact all customers who depend on a power supply for medical reasons every three hours during power cuts. (See note 2 below.)	During power cuts we prioritise contacting customers who depend on a power supply for medical reasons. We made 115,747 calls to PSR customers (including those who depend on a power supply for medical reasons) during power cuts.
(68) Continue to provide practical support through the British Red Cross and other organisations as appropriate.	We provided British Red Cross support during 23 prolonged power cuts. This was an increase from 2015/2016 as a result of training field staff on the support which is available to vulnerable customers.
(69) Ask for feedback from vulnerable customers about our service.	We achieved customer satisfaction ratings of 9.13 out of 10 from customers on the PSR who had received a routine call to check their personal details, and 9 out of 10 for those referred for advice on fuel poverty.
(70) Develop ways of sharing information with local resilience forums.	We worked with 19 forums across our four licence areas. We launched a new £10,000 fund through local resilience forums to support businesses to plan for power cuts.

Note 1: This target is for the full eight-year RIIO-ED1 period, not for each separate year

Note 2: This target is for each year of RIIO-ED1

## Improving the data held on the Priority Service Register

(62) Contact vulnerable customers at least once every two years to check the details we hold on the Priority Service Register.	We contacted 691,499 PSR customers during 2016/2017.
(63) Improve the quality of Priority Service Register data by working with other agencies and sharing information.	We developed new methods for referring people to the Priority Service Register, with a focus on direct sign-ups. We standardised and simplified methods across our 34 referral networks.
(64) Co-ordinate meetings with suppliers to agree criteria for vulnerability.	We agreed 27 new 'common needs codes' for use across the industry.

## Reducing fuel poverty by supporting customers to access help

(71) Build a database of regional agencies we can refer customers to for help.	There are fuel poverty projects in all our areas, working with a network of support agencies. During 2016/2017, we organised best practice events with all our partners to share learning.
(72) Work with partners to develop links to and from our website.	Details on our fuel poverty projects and links to partner organisations are available on our website.
(73) Develop joint information and awareness campaigns, and co-ordinate with partners to provide customers with help.	We have four 'Power Up' fuel poverty schemes to support customers who are facing fuel poverty. We supported 7,205 customers to save £1.4million a year.
(74) Provide fuel poverty training to our staff who have contact with members of the public.	We provided field staff and staff in our contact centre with customised fuel poverty training. We completed vulnerable customer training for field staff in three of the four licence areas.
(75) Use data analysis to help identify areas with a high concentration of vulnerable households.	In 2017 we used data on social factors such as benefit claims and long-term disability (collected from 41 different data sources) to target our projects to areas with the greatest need.
(76) Develop local outreach services.	'Affordable Warmth' schemes have now been set up across all four licence areas. We created a Local Action fund to identify new ways to tackle fuel poverty and vulnerability. We helped 4,595 customers to save £1.7million.

## Identifying vulnerable customers

### Our Priority Service Register

We have a Priority Service Register (PSR) which records the details of vulnerable customers who may need extra support during a power cut. We aim to make sure that every eligible customer is given the opportunity to register. In 2016/2017 we used a range of government statistics relating to vulnerability to support our existing processes for identifying customers who may be eligible for the PSR. This data helps us target projects to areas with the greatest need.

- **1.4 million** customers are registered on the PSR - a **64%** increase since 2014.
- In 2016/2017 we contacted **115,747** PSR customers during power cuts to offer support.
- Overall we contacted **691,499** PSR customers to make sure that the details we hold are correct.
- Customers contacted by our PSR teams gave us a customer satisfaction rating of **9.13 out of 10**.
- We offer **every** PSR customer that we contact the opportunity to be referred for advice on fuel poverty.

### Promoting the PSR

During 2016/2017 we've taken a range of steps to promote the PSR.

- We established partnership agreements with 34 organisations to help identify vulnerable customers who may benefit from joining our PSR.
- We distributed 250,000 pharmacy dispensary bags - which displayed details of the PSR and the national power cut phone number (105).
- We hosted a second parliamentary reception with MPs asking them to help promote the PSR.
- We introduced training for our field staff on vulnerability - making sure that they can help customers register for the PSR.
- We included details of our PSR in our yearly 'Power for Life' newsletter which we sent to all of our 7.8 million customers.

## Addressing fuel poverty

We have contact with over 2 million customers a year, which gives us an opportunity to identify customers living in fuel poverty and offer help.

We have an extensive programme of support schemes to help customers who are struggling to afford their energy.

We work with a range of expert partners, including Citizens Advice, Energy Saving Trust and the Centre for Sustainable Energy to provide practical support to customers, including help with switching tariffs and energy efficiency measures.



We helped **11,766** customers facing fuel poverty to save **£3 million**



## Supporting customers during power cuts

When there is a power cut we work to support customers, particularly those who may be more vulnerable without electricity.

During prolonged power cuts we call customers who depend on electricity for medical reasons to give them an update on when we expect their power to be restored and to find out whether they need any extra support.

During 2016/2017 we issued 2,500 crisis packs, each containing a flask, a torch with batteries, gloves, a hat, a reusable hand warmer, a foil blanket and an information leaflet.

We also work with the British Red Cross, who can provide warm meals, drinks and general welfare checks. We used this support 23 times during 2016/2017.

## The challenge of Storm Doris



In February 2017, Storm Doris hit the UK, producing wind speeds of up to **75mph**.

The storm affected **347,475** of our customers within our West Midlands region when we experienced the equivalent of a month's worth of incidents in just one day.

We restored the electricity supply to **all** of our customers within the Ofgem severe weather standard of **48 hours**. We restored power to **98%** of these customers within **12 hours**.

Our call centre handled **37,447** calls, with an average speed of call response of **6 seconds**. We sent **36,518** text messages and made **1,788** calls to vulnerable customers.

We used generators to provide a temporary electricity supply for PSR customers where it was needed.

## Using innovation to support vulnerable customers

We have designed an innovative plug-in device to tell us when vulnerable customers lose their power supply. The device works in a similar way to how smart meters will work once they are rolled out. We have formed a partnership with a local social-housing group and will install 250 devices on a trial basis.



We've chosen an area of social deprivation, which does not have a gas supply and which has above-average power cut rates. The device will tell us if the power goes off and we will call customers to find out if they need support.

The trial will help us to design processes for vulnerable customers before smart meters are introduced across the network.

We will carry out surveys at the start and end of the trial to find out how customers felt about the contact they received from us and to understand how we can use the data that smart meters will provide.



## Tracking our costs

In the RIIO-ED1 Business Plan we proposed to spend £9.2 billion over the eight-year period.

£7.1 billion of this was related to costs under our control, referred to as Totex (which includes capital spending, network operating costs and business overhead costs).

The remaining £2.1 billion covers costs such as rates, licence fees and transmission charges which are not included as Totex because they relate to costs that DNOs do not have control over.

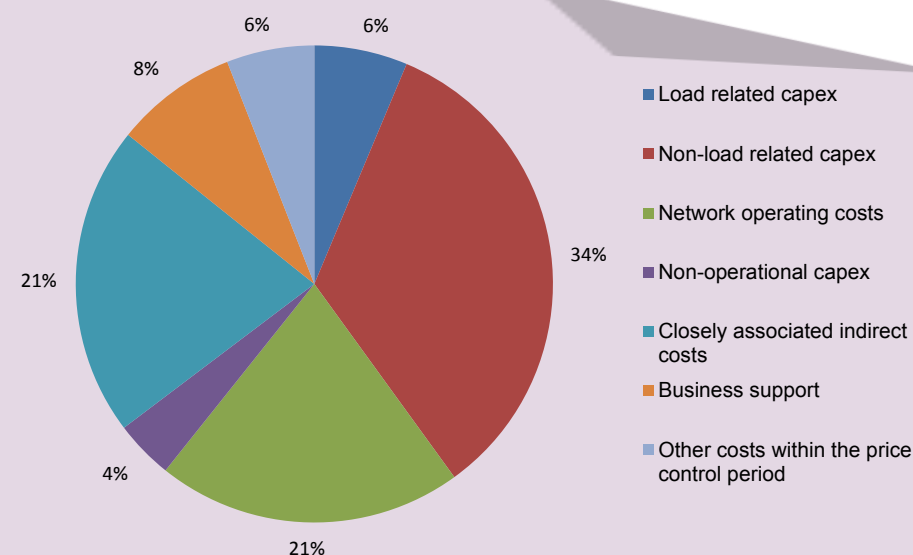
We are continuing to focus on delivering our business plan work programmes and commitments. In 2016/2017, our spend was 7% higher than Totex allowances for costs within the price control period. While costs are currently ahead of plan, we forecast that they will be within our overall allowance for the eight-year RIIO-ED1 period as a whole.

Our costs compared to our Totex allowances in 2016/17:

Total costs (Totex) for 2016/2017 (based on 12/13 prices) £million					
Licence area	West Midlands	East Midlands	South Wales	South West	WPD Total
Totex actual costs 2016/2017 (£million)	295.3	291.4	138.8	240.6	966.1
Totex allowance 2016/2017 (£million)	260.7	278.7	147.0	215.1	901.4
% of allowance spent	113%	105%	94%	112%	107%

## How we split costs

- Load related capex - costs related to providing extra capacity on the network.
- Non-load related capex - capital investment in the network, two-thirds of which relates to replacing and refurbishing assets which are in poor condition.
- Network operating costs - includes inspections, repair and maintenance, faults and tree cutting.
- Non-operational capex - includes buying new IT systems, property, vehicles and small tools and equipment.
- Closely associated indirect costs - the costs of staff and systems that allow us to carry out work on the network, such as network design activities.
- Business support - teams such as Human Resources and Finance.
- Other costs within the price control period - includes one-off unusual activity costs.



## Working with us

If you have any questions about our work, or you would like to take part in future stakeholder events, please contact us.

Email: [awilkes@westernpower.co.uk](mailto:awilkes@westernpower.co.uk)

Write to: Alex Wilkes, Stakeholder Engagement Manager, Western Power Distribution, Pegasus Business Park, Herald Way, Castle Donington, DE74 2TU.

## Making a complaint

We're committed to providing you with excellent customer service. We want to know if something goes wrong so that we can sort out any problems as quickly as possible. You can make a complaint in the following ways.



Please call us free on 0800 0556 833.



Visit our website at [www.westernpower.co.uk/Contact-us/Complaints](http://www.westernpower.co.uk/Contact-us/Complaints).



Email us at [complaints@westernpower.co.uk](mailto:complaints@westernpower.co.uk).



Write to us at Tony Taylor, Information Centre Manager, Western Power Distribution, Avonbank, Feeder Road, Bristol BS2 0TB.

Please tell us your address and postcode and provide a phone number.

## Find out more

There is more information on our performance against each of our 76 commitments in our detailed Business Plan Commitments Report, which is available at:

[www.westernpower.co.uk/WPD-Business-Plan-Commitments-Report-2016-17](http://www.westernpower.co.uk/WPD-Business-Plan-Commitments-Report-2016-17)

Copies of previous reports are available at:

[www.westernpower.co.uk/About-us/Stakeholder-information/Performance-reporting-RIIO-ED1/Previous-performance-reports](http://www.westernpower.co.uk/About-us/Stakeholder-information/Performance-reporting-RIIO-ED1/Previous-performance-reports)

## Reporting a power cut

If you have a power cut, please call us on **105** (available on landlines and most mobile providers). You can also call us on **0800 6783 105**.



Affordable Warmth	WPD outreach scheme which offers fuel poverty support through a network of partner organisations.	Distribution Network Operator (DNO)	A DNO is a holder of an electricity distribution licence. There are 14 DNOs which are owned by six different ownership groups.	Priority Service Register (PSR)	A database that records details about vulnerable customers so that we can provide extra support if needed.
AONBs	Areas of Outstanding Natural Beauty.	ENA	The Energy Networks Association - the industry body for distribution network operators.	Protection batteries	Most circuit breakers on the network rely on batteries to provide the power to monitor the network and initiate tripping and reclosing actions. These batteries are separate to SCADA batteries that provide the power for communication systems between sites and central control centres.
Automation	Remotely controlled devices which allow electricity supplies to be quickly rerouted without the need to send a person to the site.	Engagement	The process by which an organisation involves people who may be affected by the decisions it makes, or can influence the way in which actions are delivered.	Reinforcement	Providing more network capacity by installing extra assets or installing higher rated assets.
Behavioural safety	An approach to safety which goes beyond setting rules and making sure people keep to them. It focuses on changing attitudes so that staff take responsibility for their own safety and that of others.	ESQCR	Electricity, Safety, Quality and Continuity Regulations 2002. The ESQCR specify safety standards, which aim to protect the general public and customers from danger.	Resilience	The ability of the network to withstand extreme events such as storms and flooding and have the ability to recover quickly from widespread power black outs.
Black start	The recovery from an event of widespread power loss. We carry out specific programmes of work to make sure that the network is able to cope in these situations.	Fuel poverty	Circumstances where customers struggle to afford electricity.	RIIO-ED1	The price control period that runs from 1 April 2015 to 31 March 2023.
Broad Measure of Customer Satisfaction (BMCS)	An incentive scheme made up of a customer satisfaction survey, an assessment of how complaints are dealt with and a review of stakeholder engagement.	Guaranteed Standards of Performance (GSOPs)	Minimum service levels which DNOs must meet across a range of activities covering supply interruptions, appointments and connections.	SCADA batteries	Batteries which provide the power for system communication between sites and central control centres.
Bund	A containment wall built around items of plant which contain large amounts of oil, to prevent oil leaking into the environment.	Health and Safety Executive (HSE)	The Government organisation responsible for enforcing health and safety legislation.	SF <sub>6</sub>	Sulphur hexafluoride - a greenhouse gas which is used as insulation in some types of switchgear.
Business carbon footprint (BCF)	A calculation which represents the effect our work has on the environment. We measure and report BCF using equivalent tonnes of carbon dioxide to express the effect of energy use in offices, emissions from vehicles and the release of greenhouse gases.	Low carbon technology (LCT)	Devices that reduce the amount of carbon being used for heating, transport and generating power. LCT includes electric vehicles, heat pumps and solar generation.	Switches/switchgear	Devices on the network can be turned on or off and are used to alter the routing of electricity. Some can be operated remotely by central control engineers. Others need to be operated manually on site by authorised staff.
Capacity	The amount of power that can be distributed through an asset or the network.	Power Up	Our referral service which arranges for a partner organisation to provide help for customers who are struggling to pay for energy.	Transformer	Converts electricity from one voltage to another.
Contestable work	Other organisations can carry out connections work in competition with the DNO. Work that can be carried out by a competitor is referred to as contestable.	Powering Improvement	An industry strategy which aims to achieve continuous improvement in safety and occupational health in the energy generation and network sectors.	Vulnerable customers	Customers who are vulnerable for various reasons, including those who depend on electricity for medical reasons, have special communication needs or who struggle to afford to pay for energy.
CSE	Customer Service Excellence - a Government scheme which recognises organisations that provide excellent customer service.	Price control	We are a regional monopoly – our customers are our customers because of where they live and work. We are regulated by Ofgem to make sure that we provide a high level of service for the money we are allowed to charge. The money we can earn is set for a specific period of time, referred to as a 'price control'. The current price control period (RIIO-ED1) runs from 1 April 2015 to 31 March 2023.	Worst served customers	Customers who experience 12 or more higher voltage power cuts over a three-year period, with at least three in any one year.
Distributed generation	Electricity generation connected to the distribution network. It includes wind turbines, domestic solar panels, large-scale photo-voltaic farms, hydro-electric power and biomass generators.				



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Western Power Distribution (East Midlands) plc number 2366923  
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Western Power Distribution (South West) plc number 2366894  
Western Power Distribution (South Wales) plc number 2366985

Registered in England and Wales  
Registered office: Avonbank, Feeder Road, Bristol BS2 0TB

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31 October 2017

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