WESTERN POWER
DISTRIBUTION
Serving the Midlands, South West and Wales

Business Plan
2023 - 2028

SA-02 Supplementary Annex
Our commitments

December 2021

westernpower.co.uk

SA-02 Our commitments
Contents

1. Introduction

1.1. The next regulatory price control review period, known as RIIO-ED2 is a five year period and is the second for electricity distribution to be determined using Ofgem's Revenue = Incentives, Innovation and Outputs framework. This price control period runs from 1st April 2023 to 31st March 2028.

1.2. Western Power Distribution (WPD) is required to submit a 200 page Business Plan document, supplementary annexes, detailed cost tables, financial information and a range of other documents which form our submission under RIIO-ED2 to Ofgem, which will be used to determine allowed revenues for the price control period.

1.3. Our RIIO-ED2 Business Plan has been produced and compiled in line with the following key principles:

- Co-created with our stakeholders and supported by them.
- Our Plan – 'prepared with our stakeholders for delivery by us'.
- Aligned with WPD's purpose and values.
- Affordable for all of our customers.
- Sustainable and will enable net zero before 2050

1.4. Everything in our business plan submission is driven to achieve the following four strategic outcomes for customers:

1. Sustainability
Lead the drive to net zero as early as possible.

2. Connectability
Customers can easily connect their electric vehicles, heat pumps and renewable generation.

3. Vulnerability
First class vulnerable customer support programme where everyone benefits in a smart future.

4. Affordability
Maintain excellent customer service, safety and network performance and transform the energy grid for future generations, while keeping bills broadly flat.

1.5. The diagram below (figure SA-02.0) shows the structure of the full Business Plan submission with the red box showing where this document fits into the overall suite of documents.
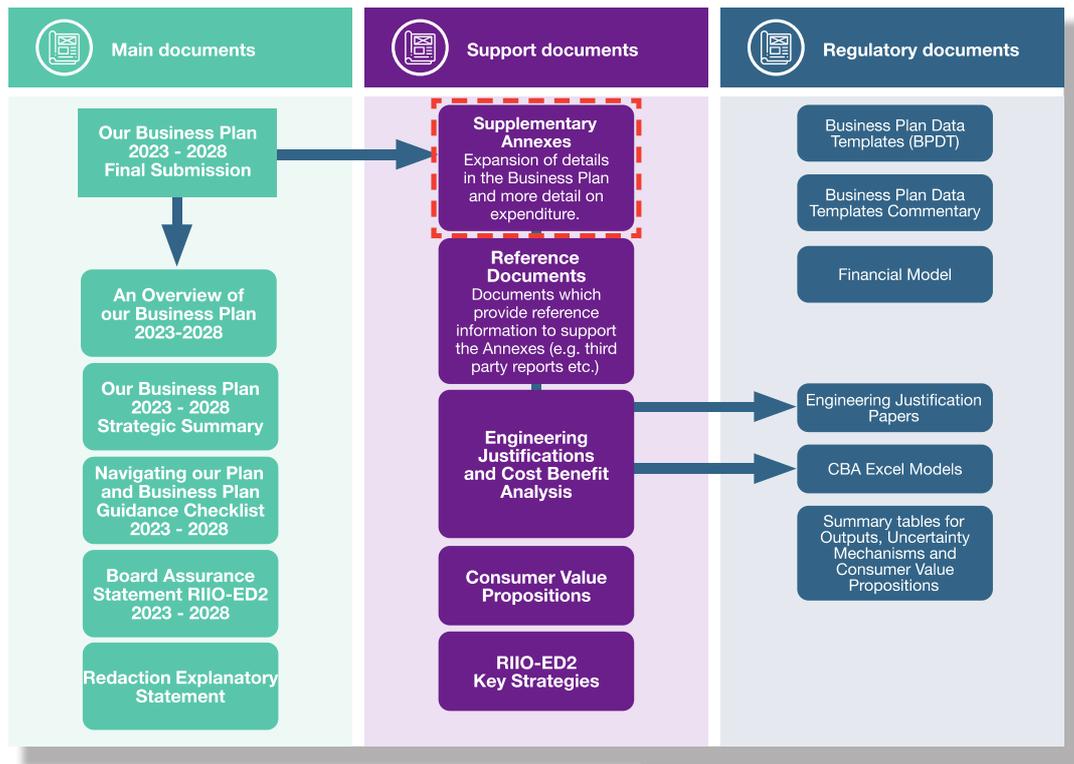

Figure SA-02.0 Business Plan submission structure

1.6. This document is a Supplementary Annex to Chapter 2 of WPD's RIIO-ED2 Business Plan document. Annex 2: Our Commitments provides more details on our 42 core commitment and more than 400 wider commitments. This document (Supplementary Annex 2: Our Commitments) builds on this further by demonstrating provides more details on our core commitments and wider commitments.

1.7. In addition Supplementary Annex: SA-02a – Our commitments – Justification Analysis builds on this further by demonstrating how each core commitment was developed and demonstrates the well justified nature of each by detailing the considerations undertaken against six stringent justification criteria and should be read in conjunction with this annex.

1.8. We appreciate that the readers of the WPD RIIO-ED2 Business Plan suite of documents will range from regulatory experts and well informed stakeholders through to new customers who may have had little previous knowledge of WPD.

1.9. This document is aimed at readers who require a more detailed understanding of the commitments that will be delivered. A less detailed description of the outputs can be found in the Our Business Plan 2023 - 2028 Final Submission or An Overview of Our Business Plan 2023 – 2028 documents.

1.10. This document is subdivided into the following sections:

Section	Title	Content
2	**Summary of our RIIO-ED2 commitments**	This section lists the 42 core commitments and the wider commitments which are within our Business Plan.
3	**Delivering decarbonisation and an environmentally sustainable network**	This section provides more details on the commitments we have made to meet the needs of our customers and network users.
4	**Meeting the needs of customers and network users**	This section provides more details on the commitments we have made to meet the needs of our customers and network users.
5	**Maintaining a safe and resilient network**	This section provides more details on the commitments we have made to meet the needs of our customers and network users.
6	**Appendices**	A number of appendices with additional information or containing links to supporting reports and strategies.

2. A summary of our RIIO-ED2 core commitments

2.1. This section details what we intend to deliver in RIIO-ED2 based on feedback from our stakeholders. We have created an ambitious and challenging programme which focuses on delivering excellent customer service harnessing the benefits of a smart future and driving industry leading sustainability plans – all while supporting our most vulnerable customers, tackling fuel poverty and ensuring bills remain affordable for everyone.

2.2. Our plan is underpinned by 42 core commitments which have been identified by stakeholders as their key priorities and will be reflected across all aspects of our Business Plan. Core commitments include actions funded by customers and actions funded by shareholders.

2.3. In addition to these high level core commitments, we have drawn up a number of wider commitments, which will enable us to achieve our core commitments and deliver on the promises we made to stakeholders in response to their detailed feedback. These will enable us to transform the way we supply power to our customers, deliver excellent service and accelerate our journey towards decarbonisation.

2.4. Our core commitments are separated into three high level categories which align with Ofgem's output categories, see figure SA-02.1. These are to meet the needs of consumers and network users, maintain a safe and resilient network and deliver an environmentally sustainable network.

Delivering an environmentally sustainable network	Meet the needs of consumers and network users	Maintaining a safe and resilient network
WPD must manage the **impact of its activities** on the environment and **enable the transition** towards a smart, flexible, low cost and low carbon energy system for all consumers and network users.	WPD must deliver a **high quality** and **reliable service** to all network users and consumers, including those that are in **vulnerable situations.**	WPD must deliver a **safe** and **resilient** network that is **efficient** and **responsive to change.**

Figure SA-02.1 Ofgem's RIIO-ED2 high level output categories

2.5. Our performance against our core commitments will be measured annually to ensure we are delivering what we said we would do. As well as reviewing our progress each year, we will establish an independent RIIO-ED2 Plan Delivery Challenge Group to hold us to account on behalf of our customers. The group will ensure that we keep on track to deliver our commitments.

2.6. We have already proven that we are dynamic and flexible in the face of industry change and challenging situations such as Covid-19. We will continue to do this by engaging actively with our stakeholders throughout RIIO-ED2 and adapting our plan to address the needs of our communities.

2.7. Our core commitments are required to fit into a regulatory framework as provided by Ofgem. They are three main regulatory mechanism. Licence Obligations, Output Delivery Incentives and Price Control Deliverables. These are illustrated in figure SA-02.2.

Licence Obligations (LO)	Output Delivery Incentive (ODI)	Price Control Deliverables (PCD)
• Must do. • Sets minimum standards. • Failure leads to enforcement.	• Penalties and/or rewards. • Reputational incentives. • League tables.	• Specific volume driven targets. • Consequences for non delivery of activity.

Figure SA-02.2 Ofgem's regulatory mechanisms output categories

2.8. Licence Obligations (LOs) are a requirement under our Distribution Operating Licence and hence are mandatory. e.g. to provide a 24/7 emergency service for customers to report power cuts and safety issues, and for the DNO to offer information, guidance, or advice about the power cut or safety issue – Standard Licence Condition 8.

2.9. There are two types of Output Delivery Incentives (ODIs).

- Financial ODI-F is a mechanism to financially penalty or reward a DNO if they under – perform or out-perform the target service level. e.g. Broader Measure of Customer Satisfaction survey.
- Reputational ODI-R where a DNO commits to deliver a specific activity and is measured against that delivery but there is no financial reward associated with it.

2.10. Price Control Deliverables (PCDs) refer to a number of named units or schemes to be undertaken. If that number is not achieved we must repay a proportion of the costs associated with the under delivery.

2.11. Ofgem specify LOs, ODIs and PCDs for certain key activities which we undertake, however where a commitment is additional to those specified by Ofgem then we are able to propose a Bespoke ODI-F, ODI-R or PCD. All of our 42 commitments fit into one of these mechanisms.

2.12. 401 of our outputs fall into the wider commitments category. Although these are not covered by the regulatory framework, they are important to our customers and are therefore important to us.

2.13. The WPD Executive Board is committed to delivering this plan in full. But we wanted to go further than this by ensuring all our staff are briefed on the outputs we will deliver in RIIO-ED2 and are fully in support of the commitments we have made.

Our RIIO-ED2 core commitments highlights

2.14. Figure SA-02.3 highlights some of key commitments we will deliver in RIIO-ED2.

Sustainability: Leading the drive to net zero as early as possible

Regions achieve net zero by as early as 2028
with network capacity available to match stakeholder aspirations

⭐ Fastest in the UK

WPD to be net zero by 2028
for WPD's own business carbon footprint

⭐ Fastest in the UK

130 local authorities actively partnered
to deliver ambitious Local Area Energy Plans, with 90 local energy surgeries a year

⬆ 200% increase from RIIO-ED1

Connectability: Customers can connect their electric vehicles and heat pumps when they want to

Ready for 1.5 million additional electric vehicles
and 600,000 heat pumps, providing affordable low carbon technology connections without delays

⬆ 279% increase from RIIO-ED1

30 community energy connections a year
with 60 surgeries for local groups annually and dedicated WPD staff to support

⬆ 150% increase from RIIO-ED1

Same day connections response for low carbon technologies
via online self-assessment tool

⭐ NEW

Vulnerability: First class vulnerable customer support programme where everyone benefits in a smart future

600,000 smart energy action plans
offered to customers in vulnerable situations each year

⭐ NEW

£60 million saved
by 113,000 fuel poor customers as a result of WPD's support schemes

⬆ 114% increase from RIIO-ED1

£1 million 'Community Matters' support fund
annually, 1,000 staff community volunteering days and a further £540,000 funding to install solar PV at 45 schools every year

⭐ NEW

Affordability: Maintain excellent customer service, safety and network performance and transform the energy grid for future generations, while keeping bills broadly flat

93% overall customer satisfaction
or higher, with separate reporting for emerging technology customers

⬆ From 90% (industry leading) in RIIO-ED1

Lowest ever power cut levels
improve the current average customer experience to one power cut lasting less than 22 minutes every two years

⭐ Best ever

200,000 school children safer
by undergrounding, insulating or diverting overhead lines crossing school playing areas at 780 sites

⭐ NEW

£723 million of efficiency savings
embedded in our Business Plan, with a further £95 million of ongoing efficiencies to come in RIIO-ED2

⭐ NEW

Figure SA-02.3 RIIO-ED2 key core commitments

2.15. Our customers have told us they value the excellent levels of customer service we deliver. We will continue to build on this success and meet their continually developing customer needs, for example, by connecting their electric vehicle chargers, offering them better access to our data and ensuring our service is affordable. To meet these changing expectations as energy use shifts away from traditional models, we have set the ambitious target of achieving an average customer satisfaction rate of at least 9.3 out of 10 when dealing with WPD by the end of RIIO-ED2, including the entirely new ones that will emerge as a result of the shift to a net zero future. We are committed to being the best today and tomorrow as our energy future evolves.

2.16. As our network undergoes radical transformation, it is essential that we protect our vulnerable customers and support them to embrace low carbon technology in order to make their bills more affordable. We already have over two million customers on our Priority Services Register who benefit from additional support during power cuts. We proactively contact these customers every two years to check they are receiving the services they need from us and to ensure that our records are up to date. We want to do more. In the next five years, we will work with partner organisations to deliver bespoke support to 113,000 fuel poor customers, helping them to save more than £60 million.

2.17. We are here to keep the lights on and the power flowing to every home and business in our regions. We will improve on our current performance by targeting customers experiencing an average of one power cut every two years lasting 22 minutes. We will also undertake 70 schemes to improve the network reliability for 8,260 of our Worst Served Customers.

2.18. We are committed to supporting our communities and responding to their needs. We have already helped over 565,000 customers in our communities through our £1m 'In This Together - Community Matters' Covid-19 fund, enabling 871 organisations to reach out to those hardest hit by the pandemic. For RIIO-ED2, we are committed to allocating a minimum of £1 million a year, funded by shareholders, to continue to support our local communities as they recover and rebuild.

2.19. Safety is at our core and, as part of our commitments, we will divert, underground or fully insulate overhead lines crossing school playing areas. Although we have never had any reported incidents where our equipment has caused harm, we are committed to taking proactive steps to keep our young children safe.

2.20. Cyber security is one of the most important items on the agenda for our stakeholders. We will conduct a continual assessment of potential cyber threats to ensure we have security systems in place to protect our customers' data and to safeguard the network from a possible cyber attack. As criminals become more sophisticated, it is our responsibility to invest in effective solutions to rule out potential threats.

2.21. As we transform towards net zero, we must make sure our network is ready. We will support our customers with the connection of electric vehicle charging points and heat pumps and get our network ready to support more localised renewable generation.

2.22. As we accelerate towards decarbonisation, we will lead by example, reducing our own business carbon footprint (excluding network losses) reaching net zero by 2028 – that is 22 years ahead of government targets. We are already working towards a fleet of non-carbon vehicles, make our buildings more energy efficient and reduce our own electricity consumption, amongst other initiatives. We will also use greenhouse gas removal initiatives including funding tree planting or supporting local photovoltaic installation schemes for the fuel poor. These local projects will benefit communities as well as the environment.

2.23. Stakeholders have also asked us to continue our work in supporting the creation of community energy projects across our region. We will step up and support the next generation of local decentralised generation. We will hold accessible community energy surgeries where customers can make appointments with our expert advisers to learn more about community energy and how to get their own schemes up and running.

2.24. Our commitments are brought to life by our dedicated and talented staff. We have a highly skilled workforce in place today which will continue to evolve during RIIO-ED2 to meet the needs of our stakeholders. We aim to attract innovative and talented individuals with diverse views and backgrounds who are able to reflect, and respond to, the needs of our customers. We strive to create a culture in which everyone shares our commitment to excellent customer service and the delivery of our outputs, and where everyone feels able to contribute. We want our staff to be proud to be part of WPD.

Our core commitments

2.25. The following tables provide a summary of all 42 core commitments, which are then described in more detail in chapters 3, 4, 5 and 6.

*Please note: For the majority of commitments, stakeholders were asked to consider up to five options with varying scales of ambition. If there was no agreement, we would have expected to see support of around 20% for each of these options. Where percentages of stakeholder support for the most preferred option was higher than 40% therefore, this was considered to be an indication of strong support out of the options tested.

Delivering an environmentally sustainable network

A smart and flexible network				Justification method	
Core commitment	Commitment Type	Change from RIIO-ED1	Positive impact for customers	Annex 2a Detailed Justification	Annex 5 - Stakeholder Justification
1. Drive the achievement of net zero across our regions sooner than 2050 in line with stakeholder plans (some areas as early as 2028), by ensuring network capacity is available.	Bespoke ODI-R	★ New	Support the UK's net zero aspirations and the government's ten point plan by ensuring the electricity network is capable of achieving this well ahead of the government's overall target of 2050 for those local authority regions that plan to do so.	✓	✓
2. Ensure customers are able to connect low carbon technologies quickly and easily, with the network being ready to support at least an additional 1.5 million electric vehicles and 600,000 heat pumps by 2028.	Bespoke ODI-R	★ New	Customers can easily connect Low Carbon Technologies without delays due to a lack of available network capacity.	✓	✓
3. Make it easy for customers to adopt low carbon technologies and achieve net zero in their region much sooner than 2050, by driving the delivery of ambitious Local Area Energy Plans and proactively engaging all 130 local authorities each year via 90 local energy surgeries	Bespoke ODI-R and CVP	★ New	Ensure the local energy requirements in each of our regions are fully understood and feed into our long term strategic planning in a timely and effective way.	✓	✓
4. Deliver a network to meet the evolving needs of our customers by aligning our future energy forecasts with the plans of local regions and the Electricity System Operator, by updating WPD's Distribution Future Energy Scenarios every 12 months.	Bespoke ODI-R	↗ Increase from every 2 years	By creating more accurate, detailed scenarios with customer input we can deliver an efficient and economic network ready for the future needs of our customers.		✓
5. Keep bills as low as possible and minimise the requirement for load related reinforcement by adopting a 'flexibility first' approach in order to maximise the utilisation of the existing network.	Bespoke ODI-R	★ New	Choosing the most effective option to provide required capacity will minimise network costs for all customers.		✓
6. Unlock capacity from the existing grid and therefore avoid the need for reinforcement, by stimulating the development of flexibility markets and implementing simple, fair and transparent rules for procuring flexibility services, with a six monthly tender and exceptional customer satisfaction for flexibility services.	Bespoke ODI-R	↗ Increase from annual tenders	Provide advanced sight and greater certainty of WPD's flexibility requirements so that providers can better plan ahead and make longer term investments to be able to provide these services.		✓
7. Deliver solutions that achieve the greatest social benefit to customers by utilising a whole system approach for major reinforcement to improve network efficiency. We will undertake three regional collaboration trial schemes by 2025 involving gas, electricity, water, waste, transport and heating sectors.	Bespoke ODI-R	★ New	Looking across the wider energy system to provide capacity for the future needs of our customers in the most efficient way.		✓

Community energy

	Core commitment	Commitment Type	Change from RIIO-ED1	Positive impact for customers	Justification method	
					Annex 2a Detailed Justification	Annex 5 - Stakeholder Justification
8	Actively support the expansion of green, renewable energy generation and help local communities to decarbonise and lower their bills, by connecting at least 30 community energy groups to the network each year. We will hold 60 community energy surgeries per year and provide a dedicated WPD community energy representative to assist with connection and flexibility offers.	Bespoke ODI-R and CVP	↗ 150% increase in connected groups	Community groups with less knowledge and expertise of the connections process receive tailored support to develop their schemes and connect to the network. This will increase their confidence and understanding of our processes, so that they find it easier to gain access to our network.	✓	✓
9	Support a growth in community energy schemes by facilitating their access to available funding streams.	Bespoke ODI-R	★ New	Support community energy schemes with viable and ambitious low carbon schemes to secure funding to make them a reality.		✓

Environment and sustainability

	Core commitment	Commitment Type	Change from RIIO-ED1	Positive impact for customers	Justification method	
					Annex 2a Detailed Justification	Annex 5 - Stakeholder Justification
10	Achieve net zero in our internal business carbon footprint by 2028 (excluding network losses) and follow a verified Science Based Target of 1.5°C to limit the climate impact of our activities.	Bespoke ODI-R and CVP	★ New	Accelerate a reduction in carbon emissions to minimise our impact on climate change.	✓	✓
11	Avoid damage to the environment by reducing the volume of oil leaked from fluid filled cables by 50% by 2028 and replacing 90km of the worst leaking circuits with non-oil alternatives putting WPD on target to remove all oil-filled cables by 2060.	Bespoke ODI-R	↗ Further increase	Significantly reduce the risk of harm to the local ecology and protect habitats and specifies in the regions we operate in.	✓	✓
12	Significantly reduce our impact on climate change by delivering a 20% reduction in SF_6 losses and drive industry partners to develop technological alternatives to reduce overall volumes of SF_6 on the system.	Bespoke ODI-R	↗ Further increase	Improve WPD's carbon footprint by reducing the risk of leaks from environmentally harmful gases from WPD's equipment.	✓	✓
13	Significantly reduce the environmental impact of our operations by achieving zero waste to landfill by 2028 (excluding hazardous waste) and delivering an overall 30% reduction in tonnage of waste produced.	Bespoke ODI-R	↗ Reduce waste to land fill from 13% to zero	Ensure our services for customers are delivered in an environmentally responsible way, reducing the carbon impact of our operations.	✓	✓
14	Improve visual amenity by removing At least 50km of overhead lines in Areas of Outstanding Natural Beauty and National Parks.	Bespoke ODI-R	↗ 51% increase	Improve the visual amenity of the landscape in beauty spots across our operating region.	✓	✓
15	Achieve a 10% net gain in biodiversity (in line with nationally recognised assessment tools) for new major projects and for selected primary and grid substation sites.	Bespoke ODI-R	★ New	Ensuring we have a positive impact on our surroundings, enhancing local biodiversity (rather than just mitigating any negative impact), improving community wellbeing and overall air quality.		✓

Innovation				Justification method	
Core commitment	**Commitment Type**	**Change from RIIO-ED1**	**Positive impact for customers**	**Annex 2a Detailed Justification**	**Annex 5 - Stakeholder Justification**
16 — Keep bills for customers low by delivering an additional stretch efficiency saving of £95m through RIIO-ED2 (on top of £723m of efficiencies already included in the plan) by utilising innovation to improve our processes and show a positive carbon impact.	**Bespoke ODI-R**	★ New	Successful innovation is quickly rolled out across the business to improve day-to-day operations to improve WPD's efficiency and overall quality of supply for customers.	✓	✓
17 — Enhance access to data that is tailored to the individual needs of our customers, by making 60% of WPD's network data available via an interactive Application Programming Interface.	**Bespoke ODI-R**	★ New	Easier automatic access to network data, with the ability to tailor data requests to the customer's specific requirements and in a format of their choosing.		✓

Meeting the needs of our consumers and network users

Customers in vulnerable situations				Justification method	
Core commitment	**Commitment Type**	**Change from RIIO-ED1**	**Positive impact for customers**	**Annex 2a Detailed Justification**	**Annex 5 - Stakeholder Justification**
18 — Ensure customers are not left behind in the smart energy transition by offering at least 600,000 Priority Services Register customers a bespoke smart energy action plan each year.	**Bespoke ODI-R and CVP**	★ New	Targeted advice and support for vulnerable customers in relation to Low Carbon Technologies, smart meters, and flexible energy services for example.	✓	✓
19 — Support at least 113,000 fuel poor customers to save £60 million on their energy bills over RIIO-ED2.	**Bespoke ODI-R**	↗ 95% increase in savings	Customers living in cold homes and/or struggling to afford their energy bills receive tailored support to make long term changes to improve their ability to afford to heat their home.	✓	✓
20 — Expand the reach of our Priority Services Register to at least 75% of total eligible customers and 80% of customers with critical medical dependencies to ensure those in greatest need receive targeted support services. This will include registering at least 50,000 additional 'hard-to-reach' customers each year.	**Bespoke ODI-R**	↗ increase from 59% reach	Customers with the most serious vulnerabilities are proactively identified and offered support.	✓	✓
21 — Achieve a 'one-stop-shop' service so that customers only have to join the Priority Services Register once to be registered automatically with their energy supplier, water company, gas distributor and telecommunications companies.	**Bespoke ODI-R**	↗ Improve from manual data shares with 80% of companies	Customers no longer have to register multiple times with each individual utility company in order to receive priority support.		✓
22 — Maintain high quality data to allow us to deliver bespoke support to customers in vulnerable situations by proactively contacting over two million Priority Services Register customers once every two years to remind them of our services and update their records (with 60% via direct telephone call).	**LO**	↗ 30% increase	Regular contact to keep vital data on the needs of our most vulnerable customers accurate and up to date. Ensure WPD's PSR is representative of the needs of vulnerable customers with appropriate representation from high deprivation areas. More 'in person' contact enables bespoke advice to be delivered to meet that individual's needs.		✓

Social contract

	Core commitment	Commitment Type	Change from RIIO-ED1	Positive impact for customers	Justification method Annex 2a Detailed Justification	Justification method Annex 5 - Stakeholder Justification
23	Support and add significant value to our local communities via a 'Community Matters' social initiative associated with the smart energy transition, vulnerability, environment and sustainability. This will include a shareholder funded annual £1 million community support fund and 1,000 volunteer days per year for WPD staff to support local causes.	Bespoke ODI-R and CVP	★ New	Act as a socially responsible business that will support the needs of the local communities we serve – delivering key corporate social responsibility initiatives to help people in vulnerable situations.		✓
24	Deliver enduring, long term support to Our communities by publishing an updated WPD Social Contract and performance report every year and maintain our prime Environmental, Social and Governance rating.	Bespoke ODI-R	★ New	Independent scrutiny of WPD's environmental, social and corporate governance initiatives to provide stakeholders with a view of WPD's performance relative to wider UK PLC and to identify improvements.		✓
25	Build decarbonised communities and local energy schemes by providing £540,000 shareholder funded support per year to install solar PV on schools in areas of high economic deprivation.	Bespoke ODI-R and CVP	★ New	Establish community energy schemes from scratch enabling schools to reduce their carbon impact and lower their energy bills, enabling the redistribution of savings to spend elsewhere on education resources.		✓

Customer service

	Core commitment	Commitment Type	Change from RIIO-ED1	Positive impact for customers	Justification method Annex 2a Detailed Justification	Justification method Annex 5 - Stakeholder Justification
26	Deliver exceptional service levels by achieving an overall average customer satisfaction of 93% or higher by the end of RIIO-ED2, with separate reporting for emerging technology customers.	ODI	↗ 4% increase	Excellent and improved service across all key service areas, including power cuts, connections and general enquiries.	✓	✓
27	Ensure a speedy telephone response to customers by answering calls within an average of four seconds and maintain an abandoned call rate of less than 1%, within our UK based, in-region Contact Centres.	Bespoke ODI-R	Maintain	Customers virtually get straight through to speak to a call agent on the telephone.		✓
28	Ensure a speedy social media response to customers by replying to enquiries within an average of five minutes and Webchats in an average of less than a minute, 24 hours a day.	Bespoke ODI-R	↗ 2 minutes quicker	Customers contacting us for a response on Twitter, Facebook and WhatsApp received a swift response.		✓
29	Provide greater insight on our planned work activities and interruptions on our network by creating an online viewer.	Bespoke ODI-R	★ New	Enable customers access information online via a 'self-service' function, rather than needing to call us, if that is their preference.		✓
30	When things go wrong ensure we put things right very quickly, by resolving at least 90% of complaints within one day and 99% of complaints within 25 days.	ODI	↗ 6 days quicker	Complaints resolved to the customer's full satisfaction very quickly.		✓

Connections				Justification method	
Core commitment	**Commitment Type**	**Change from RIIO-ED1**	**Positive impact for customers**	**Annex 2a Detailed Justification**	**Annex 5 - Stakeholder Justification**
31 Make it as easy as possible for customers to apply to connect individual domestic low carbon technologies by providing a same day connections response via an online self assessment tool	**Bespoke ODI-R**	★ **New**	Enable customers to receive a rapid response to their connection applications for potentially high volume connection types.	✓	✓
32 Provide quicker and cheaper connections options for customers by increasing the number of flexible connection offers made, ensuring 100% of schemes receive a flexible alternative to reinforcement where the reinforcement cost is >£75k for LV, 11kV and 33kV connections and >£100k for 66kV or 132kV connections and/or where works will take more than 12 or 18 months respectively to complete.	**Bespoke ODI-R**	↗ **Significantly lowered threshold (from >£125k)**	More customers can choose between a conventional reinforcement solution, or a cheaper and quicker flexible solution.		✓

Maintaining a safe and resilient network

Network resilience				Justification method	
Core commitment	**Commitment Type**	**Change from RIIO-ED1**	**Positive impact for customers**	**Annex 2a Detailed Justification**	**Annex 5 - Stakeholder Justification**
33 Deliver improved network reliability where on average power cuts are better than one interruption every two years lasting less than 22 minutes (12% reduction in customer interruptions (frequency) and 16% reduction in customer minutes lost (duration)), utilising vulnerable customer data to prioritise network improvement schemes.	**ODI**	↗ **Further improve**	Customers receive a highly reliable supply of electricity, delivering our lowest ever power cut levels with an average duration of less than 24 minutes per year.	✓	✓
34 Improve the service for at least 8,260 Worst Served Customers by undertaking 70 schemes.	**PCD**	↗ **46% increase in schemes**	Significantly improved supply reliability for customers that have experienced a significantly poorer service (higher volumes of power cuts) than the average. Improvements will result in less inconvenience and disruption for customers.	✓	✓
35 Counteract deterioration of network assets through an investment of £216 million per annum, delivering a 22% change in risk to keep network risk at similar levels to the start of the price control period.	**Bespoke ODI-R**	↗ **22% change**	Reducing the risk of unplanned power cuts by improving the reliability of our network by replacing equipment in the poorest condition.	✓	✓
36 Reduce the flooding risk at key sites by undertaking 102 flood defence schemes and engage stakeholders to reduce the need for new assets in flood risk areas.	**Bespoke ODI-R**	↗ **42% increase in schemes**	Improve the resilience of the network to severe flooding, therefore reducing the risk of power cuts and disruption to customers.		✓

Safety					Justification method	
	Core commitment	Commitment Type	Change from RIIO-ED1	Positive impact for customers	Annex 2a Detailed Justification	Annex 5 - Stakeholder Justification
37	Increase the safety of around 200,000 children by delivering 780 schemes to underground, insulate or divert overhead lines that cross school playing areas.	Bespoke ODI-R	★ New	Reduce the risk of harm to the general public, in particular younger children.	✓	✓
38	Keep our children safe by sending electrical safety education packs to every primary school in WPD's region and educate at least 80,000 children per year via direct learning.	Bespoke ODI-R	↗ 24% increase	Keep children safe around our electricity equipment and reducing the risk that they could come to harm.		✓

Business IT Security and Cyber Resilience					Justification method	
	Core commitment	Commitment Type	Change from RIIO-ED1	Positive impact for customers	Annex 2a Detailed Justification	Annex 5 - Stakeholder Justification
39	Reduce the risk of data loss or network interruption from a cyber attack by continually assessing emerging threats in order to enhance our cyber security systems.	Bespoke ODI-R	★ New	Personal customer data will be protected and the risk of power cuts as a result of cyber-attacks will be kept to a minimum.		✓
40	Reduce the risk of disruption to our operations and enhance the resilience of our IT network security as we deliver greater digitalisation, by increasing levels of threat monitoring, prevention and alerting systems, and upgrading our disaster recovery capability to ensure continuity of our operations.	Bespoke ODI-R	★ New	We minimise the risk that we will not be able to operate the network and provide our typical service to customers because of disruption to our IT systems.		✓

Workforce resilience					Justification method	
	Core commitment	Commitment Type	Change from RIIO-ED1	Positive impact for customers	Annex 2a Detailed Justification	Annex 5 - Stakeholder Justification
41	Demonstrate exceptional and embedded employment practices by achieving Gold accreditation with Investors in People by the end of RIIO-ED2.	Bespoke ODI-R	★ New	Customers receive excellent service as a result of a motivated, highly-skilled and knowledgeable workforce.		✓
42	Achieve year-on-year improvements to the levels of diversity within the business and publish an annually updated Diversity, Equity and Inclusion Action Plan	Bespoke ODI-R	★ New	Improve the quality and tailoring of our services by having a workforce that reflects the diversity of the communities we serve.		✓

Our wider commitments

2.26. The following tables provide a summary of all of our 401 wider commitments which support the delivery of the 42 core commitments. They are then described in more detail chapters 3, 4, 5 and 6.

1. Delivering an environmentally sustainable network

1.1 A smart and flexible network

Wider commitment 1	Signpost a longer term (five year) indication of network constraints using a range of future energy scenarios while forecasting is a shorter-term (up to two year) view of requirements based upon greater certainty of requirements.
Wider commitment 2	Undertake a flexibility procurement process, which has tender rounds, every six months.
Wider commitment 3	Ensure a neutral market for provision of flexibility so participants can be confident that they will be treated fairly.
Wider commitment 4	Transparency about the needs of the network in the data we publish about network constraints, as well as being transparent about pricing structures, contractual arrangements and the way in which we dispatch flexibility.
Wider commitment 5	Adopt a 'flexibility first' approach to resolving network constraints.
Wider commitment 6	Proactively identify parts of the network that are heavily loaded and provide more capacity.
Wider commitment 7	Use smart meter data, increased amounts of network monitoring and enhanced analysis to identify where network reinforcement is required.
Wider commitment 8	Look at ways in which the low carbon technology (LCT) loads can be managed to make greatest use of existing network capacity, which may involve steps.
Wider commitment 9	Introduce a data access satisfaction survey to support our engagement interaction and provide some quantitative analysis of the service we are providing.
Wider commitment 10	Update the Distribution Future Energy Scenarios each year so that we can use the latest information to inform our plans.
Wider commitment 11	Collaborate with the Electricity System Operator to allow WPD to contribute to the national Future Energy Scenarios (FES), by providing more detailed information about local developments.
Wider commitment 12	Work collaboratively with other utilities to ensure that network issues are resolved by determining the best whole system solution.
Wider commitment 13	Focus on connections of smaller domestic sized LCT connections, including the mass connection of electric vehicles (EVs) and heat pumps, where we predict high volumes by the end of RIIO-ED2.
Wider commitment 14	Continue to lead the industry in data provision powering long lasting and systemic change.
Wider commitment 15	Develop solutions to allow market participants to manage whole housing estates as pseudo power plants, matching generation and demand locally.
Wider commitment 16	Support high volume connection management and community led network management solutions.
Wider commitment 17	Install three-phase low voltage cables into new homes as standard.

Wider commitment 18	Develop the infrastructure to charge EVs at motorway service areas charging hubs, on-street and at people's homes.
Wider commitment 19	Work with IDNOs, transmission operators, gas networks and our neighbouring DNOs to ensure we provide the most efficient and effective outcomes for our customers.
Wider commitment 20	Work with the Welsh government to create a National Energy Plan for Wales, working in collaboration with National Grid, Wales & West Utilities and SPEN to ensure a whole system, joined up approach is taken to support the demand requirements associated with a Smart future.
Wider commitment 21	Upgrade our measurement capability by adding more sensors at all voltage levels within the network.
Wider commitment 22	Provide highly accessible and visible data to drive DSO functions, digitalise our planning and forecasting using machine learning, artificial intelligence to optimise our decision making.
Wider commitment 23	Establish innovation and digitalisation champions in our local offices to ensure that we are actively seeking to use innovation and digitalisation to improve our services and processes and to act an expert point of contact in each office.
Wider commitment 24	Develop and maintain an efficient coordinated and economical system of electricity distribution.
Wider commitment 25	Facilitate competition in electricity supply, electricity generation and flexibility services.
Wider commitment 26	Improve the resilience and security of the electricity system at a local level.
Wider commitment 27	Facilitate neutral markets for more efficient whole system outcomes.
Wider commitment 28	Share frequent accurate data in several formats with market participants.
Wider commitment 29	Drive competition and efficiency across all aspects of the system.
Wider commitment 30	Promote innovation, flexibility and non-network solutions.
Wider commitment 31	Minimise electricity lost by heat by analysing historical data patterns and adjusting network operations through machine learning processes.
Wider commitment 32	Actively support IDNOs to ready their networks for net zero though data exchange and innovative commercial arrangements.
Wider commitment 33	Qualitatively document and compare performance in our regions to those of other network operators, showing conclusively that we are helping drive net zero.
Wider commitment 34	Where the potential need for reinforcement is identified, WPD will fit monitoring to the distribution substation to allow actual loads to be assessed.
Wider commitment 35	Aim for 100% visibility of 11kV and higher voltage networks by ensuring that directional power flow measurements are available at all of its primary substations.
Wider commitment 36	All new or replaced distribution substations will have transformer and feeder monitoring as standard.
Wider commitment 37	WPD will identify the sites on its network with significant numbers of inverter based connections where power quality is of most concern and fit fixed power quality monitors.

Wider commitment 38	Continue to review our proposed actions and work plan in line with views received from our customers, other stakeholders, department for Business, Energy and Industrial Strategy (BEIS), Office for Zero Emission Vehicles (OZEV) and Ofgem.
Wider commitment 39	Provide instantaneous and predicted constraint levels for Distributed Energy Resources (DER) within operational timescales.
Wider commitment 40	Develop enhanced forecasting, simulation and network modelling capabilities, with processes in place to drive continual improvement to meet network and user needs.
Wider commitment 41	Improve our understanding of customer behaviour, enabling the impact of customer led smart technologies to be modelled alongside smart grid mitigations, to better understand true network capacity needs.
Wider commitment 42	Publish six-monthly Distribution Network Options Assessment (DNOA) providing transparency in decision making on the use of flexibility and other competitively tendered innovative network mitigations.
Wider commitment 43	Develop DNOA process in line with stakeholder engagement and feedback so that the inputs, processes and decision disseminations fully represent the needs of our customers.
Wider commitment 44	Develop a front loaded payment mechanism to catalyse investment in energy efficiency measures, building on the revenue potential of flexibility.
Wider commitment 45	Improve the visibility of operational decisions and the decision making to promote transparency of actions.
Wider commitment 46	Develop a process for facilitating, analysing, approving and verifying secondary trading of flexibility services.
Wider commitment 47	Publish the data which will enable peer to peer markets to further facilitate trading activity.
Wider commitment 48	As our use of flexibility services increases, we will expand and grow our dispatch infrastructure to meet the requirements.
Wider commitment 49	Protect the integrity and safety of lower voltage networks through a combination of advanced modelling, additional visibility and conventional reinforcement.
Wider commitment 50	Ensure that our planning data is made available in a standard format to increase the efficiency of data sharing.
Wider commitment 51	Use the Open Networks project to ensure that our approach is coordinated with other network and system operators.
Wider commitment 52	Continue to collaborate with all other network licences through ENA to establish common data descriptions, metadata standards and approaches to sharing data to ensure that a standardised and interoperable process is taken forwards.
Wider commitment 53	At future owner and operator forums we will work to collaboratively develop the specification of detail that is required to help secure Distributed Energy Resources (DER).
Wider commitment 54	Investigate the additional arrangements that are required to support DERs and the ESO in a more real time automated basis.

Wider commitment 55	A core forecasting and capacity management team developed within the DSO business will drive improvement in understanding electricity system impacts on customer assets and behaviour.
Wider commitment 56	A system modelling team within the DSO business will develop the systems, techniques and data required to understand the electricity system impacts on network assets and behaviour.
Wider commitment 57	Ensure that our instruction infrastructure can communicate with third party systems.
Wider commitment 58	Significantly expand our market data provision across a range of timescales to optimise short term and longer term markets.
Wider commitment 59	Use machine learning and artificial intelligence to determine the optimal contract lengths for our market participants.
Wider commitment 60	Share granular data network data on timescales, network operation, flexibility procurement and flexibility dispatch with the ESO using standardised and automated data exchange methods.
Wider commitment 61	Upgrade DSR operational systems to automate process and workflow.
Wider commitment 62	Develop Application Programme Interfaces (APIs) which will allow market participants to interact with us using automated data exchanges.
Wider commitment 63	Invest in a state estimation platform which will use SCADA data and measurement data from our sensors to improve our understanding of the operation of our network.
Wider commitment 64	Enhance data historian platform which will consolidate smart meter data with data from next generation of sensors.
Wider commitment 65	Significantly upgrade Digital Systems Processing (DSP) operational systems .
Wider commitment 66	Engage with market participants and use digital engagement methods such as community forums and analysis of the popularity of data sets to inform future needs.
Wider commitment 67	Publish all of our market data on our cloud data platform.
Wider commitment 68	Invest in new systems for our employees and customers and deliver the Data Best Practice Principles through practice data governance and data science investment.
Wider commitment 69	Replace manual data collection process with automation and supplement this with machine learning technology to improve data requesting and collation.
Wider commitment 70	Increase digital data capture from the network, utilising data and services and investing in digitalised solutions to improve our planning and operational activities.
Wider commitment 71	Share more data with third parties (while maintain privacy and compliance) to identify new improvements that would benefit our network and customers.
Wider commitment 72	Ensure data is presumed open and consistently presented in standardised and understandable formats.
Wider commitment 73	Provide regular engagement and feedback opportunities to drive our future plans and activity.
Wider commitment 74	Advance control systems across our network using increased and improved data.

Wider commitment 75	Provide a dynamic and responsive network that meets customers' needs and supports the energy transition to net zero.
Wider commitment 76	Deliver more informed decision making to maximise the capability of our existing assets.
Wider commitment 77	Utilising advanced insight and solutions to reduce risk and cost in delivering the network needs of our customers and stakeholders.
Wider commitment 78	Digitalise customer contact whilst ensuring tradition channels remain available.
Wider commitment 79	Work with employees to develop data processes and support the implantation of digital technology.
Wider commitment 80	Engage with academic and research stakeholders to support the development and delivery of new energy market offerings.
Wider commitment 81	Continue to develop our Connected Data Portal that is key to further improving the availability and access to our data and complimentary data sets.
Wider commitment 82	Review our position on the standardised maturity scale, with clear detail as to what actions and developments have driven an increase in maturity.
Wider commitment 83	Build up our search engine ranking through regular publication of high quality data to make the data more discoverable.
Wider commitment 84	Utilise a hybrid, public and private cloud architecture to deliver improved data availability and access through enabling staff and external data users' access to the same datasets.
Wider commitment 85	Our IT systems will need to be modernised - replace and upgrade adhoc legacy applications, embrace and invest in new technologies, integration tools and common data platforms.
Wider commitment 86	An IT change board will be implemented to drive the strategic planning function through the creation of a defined, prioritised and agreed project portfolio.
Wider commitment 87	Expand our new digital and data apprenticeships significantly, such as our data science degree apprenticeship.
Wider commitment 88	Expand our graduate schemes to develop digital and data talent across our business, including data science, mathematics and IT focused degrees.
Wider commitment 89	Pilot cross functional working.
Wider commitment 90	All projects and programmes will be subject to common transformation governance to ensure each delivers outcomes for customers and stakeholders.
Wider commitment 91	Proactively monitor the data requests that we receive directly and via the ENA data request portal to guide what data to prioritise for publication.
Wider commitment 92	Set up regular data science challenges with every major release of a dataset that has a high number of requests form the community.
Wider commitment 93	Extend our use of the Common Information Model to include all our assets and the network connectivity.
Wider commitment 94	Expand standard metadata elements.

Wider commitment 95	Expand our user personas, building on our beta versions that we have published to date.
Wider commitment 96	Ensure our data is published in a timely way where appropriate, moving towards near real time APIs where this has value for data users.
Wider commitment 97	Continue to lead and participate in industry groups which champion interoperability of data across the sector and beyond.
Wider commitment 98	Enhance the way in which we treat stakeholder needs further by codifying digital tool development and data publication into a roadmap that is prioritised to and responds to stakeholder needs.
Wider commitment 99	Have continuous interaction with our stakeholder engagement teams ensuring that we take all opportunities to engage customers and stakeholders in our current and planned digitalisation and data activities to shape, input and feedback.
Wider commitment 100	Host sessions with various groups, including innovators, digitalisation teams and others to learn how teams can embed whole systems thinking into their work.
Wider commitment 101	Create a management team made up of experienced individuals within our company who will drive whole systems thinking throughout the business.
Wider commitment 102	Continue to trial more coordinated approaches to how gas and electricity networks collect information from regional stakeholders to inform network planning.
Wider commitment 103	Take our stakeholder engagement in whole systems further and provide outcomes for our customers within 'broad' and 'very broad' whole systems.
Wider commitment 104	Continue to engage with Ofgem's Electric Vehicle Strategy and remain aware of the opportunities and implications of vehicle-to-grid (V2G) strategies.
Wider commitment 105	Ensure our 'very narrow' and 'whole' system processes and solutions are 'business as usual' by the end of RIIO-ED2.
Wider commitment 106	Continue to improve our collaboration with local authorities through our appointment of four local authority engagement officers.
Wider commitment 107	Publish two further DSOFs assessing the technical issues surrounding the integration of EVs and Heat and wider vectors as we move further towards a low carbon future.
Wider commitment 108	Host a series of targeted whole systems workshops to identify potential partnerships with authorities we previously would not have cooperated.
Wider commitment 109	Collaborate and assist the Welsh government to identify challenges faced by the Welsh energy system and assess potential solutions.
Wider commitment 110	Continue transforming our network to achieve whole system solutions and outcomes while keeping our service efficient and affordable for all our customers.
Wider commitment 111	Continue to provide these benefits for our customers and wider stakeholder minimising disruption and increasing efficiencies in our processes through coordination and collaboration with NGET
Wider commitment 112	Deliver Regional Development Programmes to further understand the interaction between the transmission and distribution network gained via whole system planning.

Wider commitment 113	Undertake regional collaboration trial involving a combination of gas, hydrogen electricity, water, waste, transport, and heating sectors.

1.2 Community energy

Wider commitment 114	Unlock the potential in our communities, we will provide support to the communities and their representatives through well received and accessible guides.
Wider commitment 115	Working with our Community Energy Engineers, we will support community energy groups that have great ideas for innovation projects that can provide benefits to communities.
Wider commitment 116	We will assign dedicated local carbon energy team members to support communities in their delivery of projects, powering this crucial part of industry progress.
Wider commitment 117	Hold digital workshops to empower communities to maximise the value from data to deliver net zero.

1.3 Environment and sustainability

Wider commitment 118	Install renewable local generation at all suitable offices and depots with a capability to save 3000 MWh per year.
Wider commitment 119	Purchase all building energy from a renewable source and account for this in our reported business carbon footprint.
Wider commitment 120	Reduce energy use in our buildings.
Wider commitment 121	Make sure that heating, air conditioning and other appliances (such as office lighting) are fitted with appropriate controls to minimise consumption at times when areas of our buildings are unoccupied.
Wider commitment 122	Survey all of our buildings to identify opportunities to make them more energy efficient. In doing this we will identify and prioritise carbon benefit gains against cost value, creating an action plan of carbon saving initiatives to be undertaken during RIIO-ED2.
Wider commitment 123	Ensure that all new WPD offices and depot buildings achieve an 'Excellent' Building Research Establishment Environmental Assessment Method (BREEAM) rating.
Wider commitment 124	89% of commercial van fleet to be non-carbon vehicles by 2028, lowering annual transport emissions by 10,050 tCO2e (tonnes of carbon dioxide equivalent).
Wider commitment 125	Cut carbon emissions from our operational fleet by 50%.
Wider commitment 126	Install EV charging infrastructure at all our operational sites.
Wider commitment 127	Include only non-carbon technology cars in our company car scheme by 2025.
Wider commitment 128	Roll out of a companywide driver behavioural system (DBS).
Wider commitment 129	Trial the use of hydro-treated vegetable oil fuel (HVO) as a substitute fuel to the white diesel currently used in our commercial fleet vehicles and generators. This fuel from renewable sources significantly reduces CO_2 emissions as well as particulate matter emissions.
Wider commitment 130	Reduce business travel by encouraging more remote working and virtual meetings.
Wider commitment 131	Increase use of small scale battery powered generation, where appropriate reducing reliance on diesel generation, helping to reduce our carbon footprint when restoring customer supply.

Wider commitment 132	Replace 35 of our oldest diesel generators from our mobile generator portfolio with modern units to reduce emissions from combustion.
Wider commitment 133	Proactively inject all fluid filled cables that have significant leaks on our network with perfluorocarbon trace, a benign chemical that allows quick location and repair of leaks.
Wider commitment 134	Boost our effectiveness when dealing with fluid filled cable leaks by improving response and taking intervention action at an earlier stage.
Wider commitment 135	Introduce the use of compounds that can seal leaks on fluid filled cables to further reduce loss of oil to the environment, reducing the impact of our assets and reducing the costs associated with leaks.
Wider commitment 136	Reduce the volume of oil leaked from fluid filled cables by 50% compared to RIIO-ED1.
Wider commitment 137	Replace 90km of the poorest performing 132kV and extra high voltage fluid filled cables on our network.
Wider commitment 138	Adopt any new technologies, where appropriate, to support the ongoing proactive management of our fluid filled cable.
Wider commitment 139	Continue with non-SF_6 switchgear installation (where suitable alternatives are identified at all voltage levels).
Wider commitment 140	Harness innovation to help manufacturers increase the speed of development and deployment for SF_6 free assets. The quicker we move to SF_6 free assets, the quicker we will reduce the potential impact of our operation on the environment.
Wider commitment 141	Focus on replacing our poorest performing switchgear which is prone to leakage.
Wider commitment 142	Remove all polychlorinated biphenyls (PCBs) contaminated equipment from our network by 2025. PCBs are now known to be highly toxic industrial compounds which during legacy manufacturing processes have led to contamination of some pre-1987 transformers and a small range of other equipment.
Wider commitment 143	Work with Natural England and Natural Resource Wales regarding our work at Sites of Special Scientific Interest (SSSIs) to ensure we do not adversely affect our country's protected natural assets.
Wider commitment 144	Collaborate with Natural England by implementing a 'generic assent' approval process for low impact works within English Sites of Special Scientific Interest (SSSIs).
Wider commitment 145	Establish environmental champions in our local offices to ensure that what we do is sustainable and to act as an expert point of contact.
Wider commitment 146	Work with our manufacturers and suppliers to source more goods made from recycled plastics, and eliminate plastic packaging and non-recyclable plastics in favour of more suitable materials.
Wider commitment 147	Work with manufacturers directly to implement manufacturer 'take back' schemes to ensure packaging can have a longer lifespan.
Wider commitment 148	Investigate alternative materials available for packaging to increase the durability of packaging materials.
Wider commitment 149	Investigate opportunities to turn waste materials into a resource for third parties.

Wider commitment 150	Commit to reducing losses associated with our network and publish our Losses Strategy.
Wider commitment 151	Continue to invest in the most efficient and low loss transformers in line with the EU Eco Design Regulations. Losses from these are 40% lower than with traditional transformers.
Wider commitment 152	Alongside our own operational internal BCF, we also report the carbon emissions associated with our network losses.
Wider commitment 153	Install cables with larger cross sectional areas, as standard - we will use $300mm^2$ low voltage cable, replacing the use of $185mm^2$ (larger cable cross section areas allows easier power flow from one end to the other and therefore reduce losses).
Wider commitment 154	Discontinue the use of smaller transformer sizes on our overhead line networks and removing 25kVA single phase and 50kVA three phase units from our traditional range. Larger transformers mean that losses are reduced as a result of lower energy loss in the transformer core.
Wider commitment 155	Continue to work in collaboration with electricity suppliers and other authorities to further reduce electricity theft and illegal abstraction.
Wider commitment 156	Work collaboratively to measure the embodied carbon associated with our major projects as well as a number of our key operational activities, including those generating scope 3 emissions.
Wider commitment 157	By the end of RIIO-ED2, all new major infrastructure projects will include a carbon reduction plan, detailing how many tonnes of emitted and embodied carbon are in the equipment, materials and operational activities associated with the project.
Wider commitment 158	Collaborate with local authorities and community groups to improve local air quality.
Wider commitment 159	Investigate wood treatment alternatives to replace the use of creosote on our wood poles.
Wider commitment 160	Investigate the use of alternative pole material, for example composite poles taking account of all life cycle assessments (LCA) aspects.
Wider commitment 161	Assess all contracts for sustainability criteria, including waste, carbon, LCA and environmental responsibility.
Wider commitment 162	Use machine learning design activity to develop environmentally considered construction that will minimise our impact on biodiversity.
Wider commitment 163	Use data insights to ensure that we build a 'green supply chain' and share more data with suppliers to help to reduce the overall carbon footprint.
Wider commitment 164	Improve our understanding of the likely environmental effects of climate change, including the development and ongoing support of a cross industry climate resilience working group.
Wider commitment 165	Continue to assess risks and impacts to our network associated with climate change.
Wider commitment 166	Further develop our already industry leading adaptation pathways to represent short, medium and long term climate change projections and challenges across WPD's four licence areas.

Wider commitment 167	Develop and implement cost effective and impactful climate resilience initiatives in conjunction with other business activities and investment plans.
Wider commitment 168	Review climate resilience initiatives and strategy to ensure progress and value for customers.

1.4 Innovation

Wider commitment 169	Develop a new interactive ideas portal aimed at staff, third parties, communities and other stakeholders to encourage these groups to make suggestions for innovation.
Wider commitment 170	Innovation Hub will facilitate greater collaboration by enabling us to work with third parties to test and trial new ways of working in a controlled, development, environment.
Wider commitment 171	Make small grants to individuals or groups where appropriate, to help progress an idea through feasibility assessment and the creation of a high level project scope.
Wider commitment 172	Ensure that the innovation work provides a cost benefit or a customer enhancement.
Wider commitment 173	Carry out a cost benefit assessment to identify the potential benefits of innovation projects.
Wider commitment 174	Work with third parties on forward thinking projects to complement and boost our own innovative thinking.
Wider commitment 175	Encourage more inventive thinking we issue 'calls for ideas' for future innovation projects.
Wider commitment 176	Provide a support service for people looking to switch to EVs, heat pumps or solar PV by referring them to relevant organisations which can offer the tailored support they require.
Wider commitment 177	Introduce a satisfaction survey to support our engagement interaction and provide some quantitative analysis of the service we are providing.
Wider commitment 178	Continue delivering innovation through Ofgem funded schemes in RIIO-ED2, such as the Network Innovation Allowance (NIA) and the Strategic Innovation Fund (SIF).
Wider commitment 179	Roll out solutions proven successful in previous NIA, Low Carbon Networks Fund (LCNF) and Innovation Funding Incentive (IFI) which are now needed to support net zero projects through our Business Innovation Programme.
Wider commitment 180	Roll out of System Voltage Optimisation (SVO), our centralised voltage control system.
Wider commitment 181	Provide additional support to other networks to help them apply our successful innovation solutions in their activities and expand our knowledge and contacts to other industries which depend on our infrastructure.
Wider commitment 182	Lobby for policy or regulation changes that can provide customer benefits.
Wider commitment 183	Work with industries we have not worked with before to understand their challenges, their strategies and how we can overcome barriers in regulation, funding and governance to be able to collaborate and together develop whole system solutions that provide the best value for money to UK customers.
Wider commitment 184	Continue improving our already robust framework whenever any area of improvement is identified.
Wider commitment 185	Create internal innovation performance metrics which will be used to assess on a monthly basis the innovation performance of each business department including all distribution areas, control systems, network design, finance and other teams.

Wider commitment 186	Create a competitive spirit between our internal teams that encourages the efficient delivery and adoption of innovation.
Wider commitment 187	Monitor business engagement by assessing our innovation culture by taking into account the number of projects in delivery, the benefits provided through implemented Business Innovation and our staff's perception of innovation captured in surveys.
Wider commitment 188	Run internal communication campaigns to spread the positive message of innovation and visit local teams to speak to them in person about how their ideas can be implemented through our Business Innovation Programme.
Wider commitment 189	Identify learning and best practice development from other DNOs projects that can be either integrated into our BAU practices or developed further through innovation trials.
Wider commitment 190	Interact with wider stakeholder groups such as community energy groups and EV charge point operators' forums to understand their needs and challenges to shape our project programme.
Wider commitment 191	Investigate activities and innovations being developed outside our direct industry to understand what can be learnt and adopted to improve our wider business operation.
Wider commitment 192	Identify all internal teams that will need to be involved in all stages of the Business Innovation Project and discuss with them the idea to agree on how it can be delivered overcoming existing issues.
Wider commitment 193	Train the innovation ambassadors of each business team to make them aware of ow their teams can get involved in innovation.
Wider commitment 194	Give our staff the opportunity to volunteer for the delivery of a new innovation that interests them or for the specification of a solution to a pre-determined challenge.
Wider commitment 195	Run our net zero working group with key decision makers from other industries such as transport, utilities and manufacturing to keep everyone up to date with each sector's strategic innovation plans, receive feedback on our innovation strategic plans, capture any impact on other sectors and overcome any barriers in regulation and governance that make collaboration difficult.
Wider commitment 196	Increase our collaboration with international DNOs who are leading the industry changes in their countries.
Wider commitment 197	Share the learning on both our successful and unsuccessful projects.
Wider commitment 198	Create a form on our website to collect feedback from our stakeholders on their entire journey with us, from when they first got in contact with us through to the stages of project creation and delivery.
Wider commitment 199	Update our innovation strategy annually to ensure that our strategic focus aligns with our stakeholders' needs and priorities.
Wider commitment 200	Avoid more than £94 million of network reinforcement by operating the existing primary and low voltage networks network more flexibly.
Wider commitment 201	Building on our innovation work that designed and developed our first centralised, intelligent network operation systems, we will work with our control systems team to roll out those systems in our remaining areas. This will increase network efficiency and provide detailed visibility of network operation.
Wider commitment 202	Working with our Community Energy Engineers, we will support community energy groups that have great ideas for innovation projects that can provide benefits to

	communities. This will also support our social contract and vulnerability commitments where we will roll out solutions proven in innovation.
Wider commitment 203	Working with various internal teams such as Major Projects, Network Services, local planning, Engineering Design and Primary System Design teams we will develop methodologies that evaluate the environmental impact of our activities and refine the way we run those activities to improve and continuously measure our environmental impact.
Wider commitment 204	Working with our social obligations team, we will run programmes that will make the way we identify vulnerable customers more efficient and create new ways of interacting with those customers to adapt to their changing needs.
Wider commitment 205	Focus on understanding how customer needs and behaviour has changed and will continue to change, while at the same time identifying our internal functions that need to adapt to continue providing excellent customer service.
Wider commitment 206	Working with our connections policy, local planning, and Primary System Design teams, we will continuously assess what connection types our customers need and develop new connection products to meet those needs.
Wider commitment 207	Work with our Network Services teams to rollout systems and technologies that will prevent faults from happening while minimising the resource, time and costs required to do that.
Wider commitment 208	Run a programme of work with our Safety Team which will embed within our business processes and policies our previous learning from the analysis of safety incidents.
Wider commitment 209	Use our data and network as a platform to facilitate energy as a service by developing, deploying and trialling new solutions.
Wider commitment 210	Run campaigns to understand how our work environment needs to transform to enable our employees reach their full potential and implement cultural change.

2. Meeting the needs of our consumers and network users

2.1 Customers in vulnerable situations

Wider commitment 211	Publish WPD's social indicator mapping online with data which is open sourced for anyone to use, inviting ideas to collaboratively develop new services. The data enables us to tailor outreach to gaps in our PSR take up, where the mapping suggests potential areas of vulnerability. Key areas of coverage: • PSR: Total number of customers eligible and gaps in WPD's coverage. • Fuel Poverty: Households finding it difficult to affordably heat their homes. • Resilience: Community resilience levels to inform local network investment. • Community Energy: Location of schemes to potentially protect/involve the interests of the most vulnerable in the smart energy transition. Our approach will include more than 60 social indicator datasets.
Wider commitment 212	Commission an annual horizon scan with the Centre for Sustainable Energy (CfSE) to identify additional datasets to incorporate into data mapping and potential new referral partners.
Wider commitment 213	Encourage, reveal and promote innovative ways in which other organisations have made use of WPD's vulnerability data and mapping tools to deliver social benefits. This will help to promote the data and tools more widely and catalyse greater social impact from this data.

Wider commitment 214	Develop innovation projects that use data to better understand the causes of vulnerability and identify relevant interventions to support those customers.
Wider commitment 215	Have a PSR data and information strategy in place and reviewed annually.
Wider commitment 216	Maintain dedicated PSR data cleanse teams, who contact all customers registered on the PSR at least once every two years.
Wider commitment 217	Have data share arrangements in place with suppliers, gas distributors and water companies, compliant with GDPR and Ofgem Data Best Practice Guidance. We will extend our data share arrangements to partner with telecommunications companies. We will establish two-way data sharing, partnering with all eight water companies in WPD's region.
Wider commitment 218	Maintain a network of referral partner agencies providing coverage across all four licence areas. Use data mapping to identify and target gaps in coverage to proactively reach out to local trusted agencies to expand our coverage. We will extend this to partnerships with telecoms providers, maintaining a minimum of 150 partner agencies.
Wider commitment 219	Work with local agencies, including those in the health sector, to broaden awareness and increase understanding of the PSR among customers in vulnerable situations and those who support them. We will provide all partners with training to share best practice, innovative approaches and interventions to support customers in a smart energy future.
Wider commitment 220	Achieve external accreditations, ensuring independent experts assess and endorse our processes and continue to provide guidance and advice allowing us to set strategic direction (e.g. BSI inclusivity standard, Louder than Words Charter and Customer Service Excellence). Exceeding baseline: We will achieve compliance or compliance plus ratings in all 57 elements of the Customer Service Excellence assessment.
Wider commitment 221	Maintain Accessibility AA standards on our website. Achieve AbilityNet Accreditation for WPD website.
Wider commitment 222	Communicate with customers via multiple channels including: Twitter, Facebook, WPD Power Cut Reporter app, text message, website, email, WhatsApp and Webchat.
Wider commitment 223	Provide translation services available 24/7 by telephone and on WPD's website for more than 100 languages including RoboBraille online function for customers to quickly and independently convert information or documents on our website into audio books, braille or another format.
Wider commitment 224	Provide a SignVideo service, providing customers with the ability to contact WPD via a sign language interpreter free of charge.
Wider commitment 225	Have a dedicated online content targeted at customers in vulnerable situations including: • Dedicated Priority Services Hub on WPD's website signposted from the homepage for customers, existing partners and potential partners. • WPD Power Cut Reporter app providing PSR sign up and advice. • Social media, including campaigns targeted at our top five PSR gaps.
Wider commitment 226	PSR customers provided with dedicated 24/7 phone number to call in the event of a power cut.
Wider commitment 227	Our average speed of response for PSR customers will be two seconds.

Wider commitment 228	Provide PSR customers the following 24/7 support during power cuts: • Provide PSR customers with information on planned and unplanned network outages, contacting them proactively using their preferred method of communication whether that is call back, text message, WhatsApp or WPD's Power Cut Reporter app. • Accurate information and bespoke alerts via online power cut map and WPD Power Cut Reporter app. • Collaborate with external agencies including the British Red Cross and National Caterers Association to provide welfare support: e.g. crisis packs, warm meals, alternative accommodation • PSR customers medically dependent on electricity are provided tailored advice including discussion of back-up plans for any medical electrical dependencies.
Wider commitment 229	Work with expert stakeholders to develop resilience planning specifically targeted at premises providing care and support for vulnerable customers, including care homes, refuges and shelters.
Wider commitment 230	Work with expert stakeholders, including our Customer Panel and 150 expert referral partners, to refresh our definitions and understanding of vulnerability each year.
Wider commitment 231	Hold annual customer vulnerability workshops to engage expert stakeholders and to work with them to develop our understanding of vulnerability, share best practice and understand the priorities which need to be addressed.
Wider commitment 232	Work with our expert stakeholders to update our Customer Vulnerability Strategy each year and co-create an ambitious annual action plan to develop new, innovative outreach initiatives for the vulnerable and fuel poor.
Wider commitment 233	Our work with the CfSE on the 'Smart and Fair?' initiative will provide research that will enable us to expand our definition and understanding of vulnerability to reflect capabilities to participate in a smart network, considering how this evolves over time. We will collaborate to further develop the Capability Lens and offer profiling tools, enabling us to model and therefore identify the capabilities of vulnerable customers to participate in a smart, low carbon future. These will be used to: calibrate existing schemes; design and implement new interventions to support wider participation in a smart energy market.
Wider commitment 234	Work with key stakeholders to understand and serve the needs of disabled EV drivers, ensuring they are provided access to adequate charging infrastructure in a timely manner, delivered as part of local area energy plans.
Wider commitment 235	Collaborate with industry partners to create an online platform bringing together tools, advice and support for small and medium businesses to participate in the energy system transition, and provide energy resilience advice in relation to dealing with power cuts.
Wider commitment 236	Continue to maintain partnerships with Local Resilience Forums to assist in the co-ordination of community support during incidents such as flooding.
Wider commitment 237	Deliver core fuel poverty schemes with expert lead partners – with monthly performance monitoring enabling the assessment of schemes' effectiveness and provides ongoing communication on new and emerging issues with opportunities to identify new support interventions, collaborate and share best practice. • 23 core schemes based on hub delivery model with one lead partner in each WPD region responsible for detailed assessment of customers' needs and coordinating multiple local services to provide support • Two referral models Power Up and Affordable Warmth. • Nine core interventions.

	• Contractual arrangements provide performance reporting requirement. Granular outcomes reported for each customer supported. • Only quantitative savings and outcomes captured for each customer. • Wider qualitative social value calculated via common SROI model and reported separately. • Contract performance managed by dedicated WPD Social Obligations team. • Customer survey to verify/correct/update the outcomes recorded and to assess their satisfaction.
Wider commitment 238	Utilise the Power Up Smart nine core interventions and tailored energy advice targeted at PSR customers with smart meters.
Wider commitment 239	Use the Power Up Health nine core interventions in partnership with local health services and support groups and customers referred to WPD by their medical oxygen provider.
Wider commitment 240	Hold an annual fuel poverty innovation competition 'Energy Affordability Fund' seeking innovative projects to tackle fuel poverty. • Scope co-created with expert stakeholders including WPD's Customer Panel each year • Support provided by WPD social obligations experts to help applicants generate viable proposals • Applications assessed and scored in collaboration with WPD's Customer Panel.
Wider commitment 241	Develop and implement new interventions for fuel poverty outreach schemes, specifically targeting advice to support customers in the energy transition and participate in the opportunities this provides to help them with their energy costs.
Wider commitment 242	Every WPD innovation scheme will formally consider the impacts and opportunities for customers in vulnerable situations. This approach maximises customer touchpoints, signposting support for customers participating in trials and expanding referral channels for support schemes.
Wider commitment 243	Take a leading role in coordinating a range of industry participants (including funding for collaborations with community energy stakeholders and water companies) to share best practice and co-deliver schemes, ensuring vulnerable customers are not left behind by the smart energy transition.
Wider commitment 244	Enhance our internal applications for all field staff, providing access to advice and information on identifying vulnerability, our support and the PSR, ensuring staff are equipped to help vulnerable customers they encounter.
Wider commitment 245	Deliver customer vulnerability training to all employees on an annual basis, with key training for all staff and specialist training for staff who regularly interact with vulnerable customers (e.g. field staff, Contact Centre staff).
Wider commitment 246	Continually review and expand the training provided to staff in line with changing customer needs. We will identify expert external training on individual factors which can give rise to vulnerability, including the provision of support to ensure customers are able to participate in smart energy services.
Wider commitment 247	As part of our induction process, all new employees receive training about the PSR and the services we offer customers in vulnerable situations.
Wider commitment 248	Establish WPD's Resource and External Affairs Director, as a Vulnerability Champion, provides strategic direction and ensures customer vulnerability is embedded in WPD's company wide operations and embodied in our culture.

Wider commitment 249	Appoint vulnerability champions at local depots to act as a point of contact for staff and to raise awareness of our customer vulnerability programme.
Wider commitment 250	WPD policy ensures all necessary vetting and screening processes are conducted on relevant staff with Disclosure and Barring Service (DBS) checks for all new employees and those who enter customer premises on a tri-annual cycle.
Wider commitment 251	WPD's Social Contract will drive wider understanding of vulnerability for WPD staff through initiatives building links with the communities they live and work in.
2.2 Social Contract	
Wider commitment 252	Ensure full compliance with the Financial Reporting Council's Wates Principles for the corporate governance of Large Private Companies.
Wider commitment 253	Adhere to six principles covering 1) purpose and leadership; 2) board composition; 3) director responsibilities; 4) opportunity and risk; 5) remuneration; and 6) stakeholder relationships and engagement.
Wider commitment 254	Regularly update the Western Power Group Constitution and Authorities and articles of association, subjecting them to external scrutiny and review.
Wider commitment 255	Train all WPD's Directors and Non-Executive Directors annually regarding governance.
Wider commitment 256	Achieve recognised external accreditations in line with the aims of the Social Contract.
Wider commitment 257	Conduct annual stakeholder engagement events to seek feedback on WPD's RIIO-ED2 delivery performance, identify areas of emerging stakeholder interest and concern and track changes in customer expectations.
Wider commitment 258	Obtain expert scrutiny on our approach and performance on the Social Contract.
Wider commitment 259	Conduct annual social value research to capture the full extent of social value created by our initiatives and identify opportunities to increase efficiency and deliver even stronger benefits and outcomes for customers.
Wider commitment 260	Work in collaboration with the other DNOs and Gas Distribution Networks to continue to apply common definitions and methodologies to measure, record and report social value in a consistent way, enabling customers and stakeholders to make meaningful comparisons.
Wider commitment 261	Engage with employees on the Social Contract through satisfaction surveys and employee communication channels.
Wider commitment 262	Publish an annual report of actions and impact delivered by the Social Contract, as well as an Action Plan for the following year co-created with stakeholders.
Wider commitment 263	Achieve independent, annual Environmental, Social and Governance (ESG) assessment and target a minimum of an ISS 'B' rating every year or an equivalent rating by an alternative recognised agency.
Wider commitment 264	Gain external audit and assurance of our annual accounts, including oversight from WPD's RIIO-ED2 Business Plan Delivery Challenge Group.
Wider commitment 265	Explain the Gender Pay Gap reporting outputs, implementing an associated action plan.
Wider commitment 266	Enrol WPD staff as volunteer STEM ambassadors to deliver outreach activities in our region.

Wider commitment 267	Employees will be recruited through a new apprenticeship programme with reduced barriers to entry.
Wider commitment 268	Target STEM outreach to areas of poor social mobility in our region.
Wider commitment 269	Support New Model Institute for Technology and Engineering's (ENMITE) ambitions for a diverse and inclusive engineering university through industry insights to enrich the curriculum, mentorship and careers fairs.
Wider commitment 270	Facilitate skills building and lifelong learning at a local level through a partnership with the Skills Foundry.
Wider commitment 271	Support manufacturers and suppliers to be environmental stewards.
Wider commitment 272	Support local schemes seeking to improve the environment.
Wider commitment 273	Build on engagement with stakeholders and partners to develop our education and outreach activities, increasing the STEM pipeline to deliver local decarbonisation ambitions.
Wider commitment 274	Use digital solutions to build an 'early warning system' of areas that are a risk of being left behind in the energy transition, potentially due to network constraints, planned third party investment, housing stock etc.
Wider commitment 275	Digitalise aspects of our energy advice service including automated home surveys for energy efficiency and low carbon technology options.
Wider commitment 276	Digitalisation can be used to offer new services for our vulnerable customers, for example offering voice activated apps (Alexa) that combat loneliness and help customers access energy efficiency advice, additional support and services.
Wider commitment 277	Report and monitor our progress in diversity across key under-represented sectors.
Wider commitment 278	Leverage touchpoints with our schools and wider customers to deliver Science, Technology, Engineering and Maths education and outreach, promote our Priority Services Register and fuel poverty services, and identify further social and environmental benefits to maximise the value of our interaction with communities.

2.3 Customer service

Wider commitment 279	Achieve full compliance with the Customer Service Excellence Standard and undergo rigorous external assessment and benchmarking every year to evaluate our performance in relation to accessibility, customer service and stakeholder engagement.
Wider commitment 280	Obtain British Standard Institute's accreditation for Inclusive Service Provision (BS18477) assesses WPD's ability to recognise and respond to the dynamic nature of vulnerability and deliver inclusive, accessible services for all.
Wider commitment 281	When experiencing exceptionally high call volumes in our Contact Centre, we will increase the number of advisers available by deploying trained staff from across the company. Trained advisers are also able to take calls at home, in the event of bad weather.
Wider commitment 282	Guaranteed Standards of Performance (GSOPs) set out the minimum service standards that DNOs must meet under Ofgem's regulatory framework. Where we are aware of a failure, a payment will be made without the need for a customer to make a claim.
Wider commitment 283	Move to an ability to provide GSOP payments electronically where customers prefer this method.

Wider commitment 284	Develop new capabilities to deliver bespoke advice, support and service offerings to enable customers to access smart energy services.
Wider commitment 285	Utilise innovation and digitalisation solutions to improve the efficiency and effectiveness of existing customer service channels and to also develop entirely new offerings that keep pace with the evolving expectations.
Wider commitment 286	Use machine learning and analytics to predict why customers are contacting us and move them to the most appropriate channel for them.
Wider commitment 287	Use feedback from customers on each service channel to develop further improvements.
Wider commitment 288	Offer an Amazon level of digital engagement with immediate customer response across multiple channels, 24/7.

2.4 Connections

Wider commitment 289	Ensure that customers have all the information they need both at pre-application and application stages for a new connection so that they know exactly what to expect and what is required on their part.
Wider commitment 290	Continue to hold our annual connections conference to engage with our connections customers on specific issues relating to new connections activities and to assess that we are on track to deliver against our commitments.
Wider commitment 291	Continue to communicate with our stakeholders through well-established channels including workshops, seminars and expert panels, understanding that face to face discussion is the best method of communication where this is possible. However, we will also embrace other platforms, including webinars, Zoom and MS Teams, which allow for virtual contact without the need for travel time or hosting costs.
Wider commitment 292	Work closely with major industry to understand their road maps to achieve net zero and ensure that we can enable the network to allow them to deliver on their strategy.
Wider commitment 293	Continue to work with our industry partners including the National Grid's Electricity System Operator (ESO) and Electricity Transmissions (NGET), as well as other DNOs, to ensure a systematic and collaborative approach to providing larger connections.
Wider commitment 294	Continue to invest in the network but also prioritise non-network solutions through the use of flexibility. This will save our customers the time and expense associated with conventional network reinforcement schemes.
Wider commitment 295	Ensure that these customers have a single point of contact in our planning team at the quotation stage and with one of our construction teams at the connection stage.
Wider commitment 296	Continue to hold local connections surgeries which allow major customers to book an appointment with our local planning team to discuss planned connections.
Wider commitment 297	Continue to explore innovative ways of connecting LCTs and build on initiatives, to introduce large capacity, rapid EV charge points at strategically important locations such as motorway service areas.
Wider commitment 298	Enhance our online service to provide a wider range of online quotations.
Wider commitment 299	Improve clarity concerning the availability of flexible connections and promote access to deliver more efficient network utilisation.
Wider commitment 300	Develop tailored processes for meeting different customer groups' needs for initial application stage, the final connection and energisation.

Wider commitment 301	Introduce local authority engagement engineers dedicated to supporting local authorities, local enterprise partnerships and major connections customers.
Wider commitment 302	Make data more visible and interactive for customers through centralised data mapping functionality.
Wider commitment 303	Use targeted stakeholder engagement to ensure that improvements identified are specific to the relevant subject area, market segment and customer types.
Wider commitment 304	Achieve full digitalisation of the customer connection journey, including self-assessment tools, automated cost estimating, online contract processing, tools to book and reschedule work, and automated customer satisfaction reviews.
Wider commitment 305	Work with ICPs and IDNOs to minimise the number and scope of non-contestable services.
Wider commitment 306	Provide animations setting out the connections process and associated roles and responsibilities.
Wider commitment 307	Improve interactive costing tool to combine with mapping system, allowing a cost to be determined from a pin location.
Wider commitment 308	Provide an 'Any Questions' request a call back service.
Wider commitment 309	Provide a 'Strategic Planning Information' request service for local authorities (LA) and Local Enterprise Partnerships (LEPs).
Wider commitment 310	Continually review and improve connections related website information.
Wider commitment 311	Broaden engagement on Network Strategy to include housing and commercial developers, and strategic landowners.
Wider commitment 312	Improve EV Capacity Map to show capacity at distribution level.
Wider commitment 313	Review the breakdowns with stakeholder input to identify whether any improvements can be made.
Wider commitment 314	Publish information relating to diversity that can be applied to specific applications, e.g. EV charge points and heat pumps.
Wider commitment 315	Provide tipping point information for the capacity that could be provided whilst avoiding the need to trigger reinforcement.
Wider commitment 316	Formalise arrangements for expediting the reconnection of critical infrastructure, including internet cabinets.
Wider commitment 317	Improve online services to allow online payments for larger connections.
Wider commitment 318	Advise customers as soon as is reasonably practicable if we become aware of the requirement to amend the connection charge at any point during the course of the scheme.
Wider commitment 319	Manage network connections queues more effectively for flexible assets such as storage that can bring wider system benefits.

Wider commitment 320	Deliver exceptional connection service levels by achieving an average customer satisfaction of 90% or higher for all connection types (including major connections and LCT connections).
Wider commitment 321	Provide timely connections to the network by improving our Time to Quote and Time to Connect for LCTs by 1% (small schemes) and deliver at least 90% satisfaction with the timeliness of connections for larger schemes.

3. Maintaining a safe and resilient network

3.1 Network resilience

Wider commitment 322	Reduce the number of customers impacted by faults on our network. We have installed remote controlled devices and automation technology to reduce the number of customers affected when a fault occurs.
Wider commitment 323	Aim to improve on our performance by striving to restore supplies linked to a high voltage fault for 87% of customers (who are not automatically restored) within one hour.
Wider commitment 324	Use machine learning to use proactive and preventative fault identification before power cuts occur.
Wider commitment 325	Continue investment in Light Detection and Ranging (LiDAR) equipment for our helicopter fleet, which uses lasers to measure distance, providing an accurate measurement between overhead line conductors and vegetation.
Wider commitment 326	Reduce faults from vegetation contact with our network by using insights from LiDAR technology.
Wider commitment 327	Continue working to minimise the number of customers who are off supply for 12 hours.
Wider commitment 328	Continue to improve our understanding of the environmental effects of climate change. This includes the impact of rising levels of temperature, sea level rises and the changes in the pattern of rainfall.
Wider commitment 329	Continue to resolve defects, including addressing conductors with insufficient ground clearance and installing anti-climbing devices on poles with mounted equipment.
Wider commitment 330	Remove defective poles from the network within a year of being identified as defective, to ensure timely removal of any poles susceptible to failure.
Wider commitment 331	Complete tree clearance programmes to reduce the likelihood of branches and windborne debris affecting our overhead lines.
Wider commitment 332	Provide adequate network capacity (either through traditional solutions or new flexibility services) to prevent damage to assets from overloading.
Wider commitment 333	Modernise some of the network protection arrangements in the South West, where we will be replacing legacy fuses with new devices that respond better to certain types of fault reducing the number of customers impacted by power cuts.

3.2 Safety

Wider commitment 334	Continue to be a leading safety performer by reducing our average Accident Frequency Rate (AFR) by an additional 10%, on our RIIO-ED1 performance.
Wider commitment 335	Improve the effectiveness of this training and will review the content of all our bespoke training courses during RIIO-ED2 to ensure these cover all the elements needed to keep staff safe.

Wider commitment 336	Conduct two further surveys and follow up with discussion workshops across the business.
Wider commitment 337	Lead and participate in many national working groups and initiatives related to health and safety.
Wider commitment 338	Work with our peers to influence and promote improved practices across the whole industry through initiatives including the Electricity Networks Association's Powering Improvement and the Health and Safety Executive's Helping GB Work Well programmes.
Wider commitment 339	Deliver conferences to staff and contractors to promote and share safe working practices and lessons learned from recent events.
Wider commitment 340	Invite independent experts to provide advice and information, linking to our own safety action plan.
Wider commitment 341	Work with our contractors to ensure that safety remains a key priority and that their safety performance is monitored by appropriate site safety visits and contractor audits.
Wider commitment 342	Review all of our health and safety documents and ensure the advice and instruction they provide is both clear and effective and up to date.
Wider commitment 343	Review the way in which we communicate health and safety information to ensure we deliver effective, engaging material for both staff and contractor organisations using the most appropriate means of communication.
Wider commitment 344	Deliver safety related information to over one million customers by distributing safety literature and making greater use of social media to reach an even wider audience.
Wider commitment 345	Educate at a regional level to help people in other industries and businesses understand the dangers of working close to electrical networks.
Wider commitment 346	Look for innovative ideas on how we can deliver safety education and use digitalisation to improve the scope of the education and the impact of message.
Wider commitment 347	Issue advice to groups or organisations whose members may be at greater risk as a result of carrying out activities close to our equipment.
Wider commitment 348	Install, inspect and maintain our assets in line with best practice and to ensure they comply with all health and safety regulations, continue to operate safely and do not expose anybody to avoidable danger.
Wider commitment 349	Use data to provide the right information at the right time to staff, contractors, customers and stakeholders to support safe working practices by extending our current use of applications but also by looking for innovative new ways to effectively communicate.
Wider commitment 350	Utilise digital solutions to transform the approach to learning, e.g. immersive training using virtual reality headsets.
Wider commitment 351	Continue to operate Safety, Health and Environment committees at company and local level, reporting annually on safety performance and absence management.

3.3 Business IT security and cyber resilience

Wider commitment 352	Investment in, and enhancement of, our existing cyber security systems, controls and processes.

Wider commitment 353	Ensure Network and Informative Systems Directive (NIS) compliance by extending the size and scope of the existing cyber security team.
Wider commitment 354	Further development of our cyber security risk model as the threat landscape changes.
Wider commitment 355	Trial and develop new cyber security systems for new technologies, system integration and digitalisation.
Wider commitment 356	Work with third parties including the National Cyber Security Centre, to ensure our systems remain security compliant.
Wider commitment 357	Ensure all systems are kept up to date with the latest operating system versions and security patches.
Wider commitment 358	Embed cyber security principles and controls into the supply chain.
Wider commitment 359	Continue to raise awareness and the profile of cyber security within the business.
Wider commitment 360	Upgrade our disaster recovery capability.
Wider commitment 361	Ensure that all customer data is kept secure and all General Data Protection Regulations are met.
Wider commitment 362	Understanding IT cyber security best practice and applying this to our OT environment.
Wider commitment 363	Work with PricewaterhouseCoopers (PwC) to understand the vulnerabilities and risks specific to WPD's OT infrastructure and developing risk targeted future work/investment roadmaps.
Wider commitment 364	Define security policies to detail the standards and controls to be applied to OT services.
Wider commitment 365	Continued emphasis on data security and support to the business in relation to its Digitalisation strategy.
Wider commitment 366	Evolve threat detection, incident response, and proactive cyber hunting capability.
Wider commitment 367	Standardisation of scalable technology solutions for both IT and OT to improve security and gain economies of scale.
Wider commitment 368	Work with the National Cyber Security Centre and other third party security specialists to advanced cyber threat intelligence capabilities.
Wider commitment 369	Working with our Information Resources team and the world's best internet organisations, we will use our data and network as a platform to facilitate energy as a service by developing, deploying and trialling solutions.
Wider commitment 370	Use digitalisation to enhance risk management, defence, detection, and recovery from cyber threats.
Wider commitment 371	Continue to focus on maturing our cyber security metrics and continuing to assess security posture against industry recognised benchmarking standards to ensure industry best practice is maintained.
Wider commitment 372	Reduce the risk of data loss or network interruption from a cyber-attack by continually assessing emerging threats in order to enhance our cyber security systems.

3.4 Workforce resilience

Wider commitment 373	Maintain a happy, healthy and motivated workforce.
Wider commitment 374	Retention and upskilling of staff.
Wider commitment 375	Attract new talent to our business.
Wider commitment 376	Increase the STEM pipeline flow into our company.
Wider commitment 377	Review and identify opportunities to manage and motivate our loyal, valued and resilient workforce to deliver results and meet future challenges.
Wider commitment 378	Ensure we have these skills both by recruiting externally, and by continually training and upskilling our existing employees.
Wider commitment 379	Promote WPD wherever we can to further increase our already strong reputation as 'a great place to work'.
Wider commitment 380	Train more Trade Union representatives as well as employees who have a desire to support mental health in the workplace.
Wider commitment 381	Continue our strong track record in creating a workplace in which employees from a diverse range of cultures and backgrounds feel 'at home'.
Wider commitment 382	Continue to be an inclusive, respectful and diverse employer that rewards performance, enables professional development and encourages employee engagement, and where everyone is treated fairly and with respect and dignity.
Wider commitment 383	Promote wellness in the workplace.
Wider commitment 384	Review working arrangements to allow for more flexible and agile working, which will attract a more diverse workforce.
Wider commitment 385	Provide competitive employment packages, benefits and career opportunities that attract candidates from diverse communities, using salary and benefits benchmarking within the sector.
Wider commitment 386	Run campaigns to understand how our work environment needs to transform to enable our employees reach their full potential and implement cultural change.
Wider commitment 387	Focus on continuous development of staff through novel opportunities, re-evaluate our roles and make changes to attract new, diverse workforce.
Wider commitment 388	Use data and digital applications to improve employee engagement and attract new talent. We will also use it to open up new career paths (e.g. data science) and new digital skill development for employees for employees to ensure we are an inclusive employer.
Wider commitment 389	Reduce the gender pay gap by having the necessary pipelines of females ready to move into management roles and increase female talent generally.
Wider commitment 390	Continue to actively support careers events at schools, work with diverse colleges and universities, support charities and organisations in the community to attract those from under represented backgrounds.
Wider commitment 391	Improve the diversity of applicants and scholars within the Power Academy programme.

Wider commitment 392	Further enhance our ESG rating for 'measures to promote equal; opportunities and diversity' from A- to A+.
Wider commitment 393	Increase diversity of the pipeline of applications for all positions.
Wider commitment 394	Track flexible working arrangements extending our working from home policy with working arrangements to support all agile and inclusive working.
Wider commitment 395	Continue to offer health and wellbeing interventions such as Employee Assistance Programme, managed back care provision, health surveillance and occupational health support.
Wider commitment 396	Build on our employee satisfaction and pulse survey outcomes to measure employee satisfaction.
Wider commitment 397	Hold annual personal development reviews with all staff.
Wider commitment 398	Continue to recognise employee achievements.
Wider commitment 399	More use of social media platforms to promote our employer brand and show support for celebration days.
Wider commitment 400	Devise a communications plan to sustain our DEI message internally.
Wider commitment 401	Use spot awards to staff who demonstrate outstanding performance to reward them for going the extra mile.

Consumer value propositions

Going the extra mile for our customers

2.27. WPD's Business Plan has been co-created in partnership with our stakeholders. Starting with a blank sheet of paper, we have worked with them to build a plan that reflects their priorities. Our final commitments will be agreed with stakeholders following a process of negotiation and refinement, which will include consulting with them on each of the three full drafts to be published before the final Business Plan is submitted to Ofgem in December 2021.

2.28. WPD's key aim is to deliver an ambitious plan that reflects the changing and increasing expectations of customers, while continuing to provide excellent value to customers. We are mindful that customers pay for everything we do. That is why we have gone beyond simply delivering a highly cost efficient plan, by making additional commitments that will generate significant extra value to consumers. We determine this value using a robust measurement and give priority to the proposals that are most important to our stakeholders.

2.29. To deliver a consumer focused, socially responsible and sustainable service for our customers, it is vital we develop a thorough, sophisticated understanding of how we create, measure and deliver social value. WPD's pledge to respond to stakeholder feedback is paramount, but we have challenged ourselves to go further and ensure the actions we take are the most appropriate and deliver the highest positive impact for our customers.

2.30. We therefore propose to deliver a large number of activities in areas that are important to our stakeholders and which deliver significant benefits and value to customers. These initiatives form WPD's Consumer Value Propositions (CVP).

2.31. It is not possible or appropriate to ring-fence customer value as an isolated part of our plan. In fact, WPD's aim to deliver additional value and ambitious services is something that runs through the entire plan. That is why there is a focus on CVP in every outputs section, containing a series of commitments that contribute to our overall CVP.

2.32. The crucial first step for any CVP must be to find a way of measuring the value of our proposed actions. Without this, the value declared by DNOs may appear spurious or difficult to compare. In WPD's case, we have undertaken extensive, bespoke research with end customers to arrive at the figures contained in our CVP. We have applied best practice methodologies agreed by all DNOs and adopted learnings from across a wide range of UK sectors, to provide a robust, auditable and reliable view of the value we will deliver in RIIO-ED2.

A robust measurement of value

2.33. To prepare for the CVP process, all DNOs first needed to agree on a common approach to measuring social value, allowing for straightforward assessment and comparison. During RIIO-ED1, WPD has driven the energy industry towards increasingly sophisticated tools for measuring social value. In 2017, WPD commissioned Price Waterhouse Cooper to review all existing tools across a wide range of industries. Findings from this review have guided us to 1) develop standard values across the DNOs, and 2) combine multiple methodologies to build the most robust measure possible.

2.34. In early 2020, in collaboration with Scottish Power, we began work to define the future of social value measurement. We engaged a recognised expert in the area of social value, Sia Partners, to run a project that will define a cross-industry methodology, standard reporting figures and a database of social values (inputs).

2.35. We have always evaluated the socially focused services it offers, to ensure these deliver value for money. Traditionally, this value stems from our efforts to measure the qualitative impacts and benefits we have achieved by providing support for vulnerable customers during power cuts and addressing fuel poverty. However, in recent years, we have expanded this to consider a wider range of valuable outcomes, such as enabling vulnerable customers to benefit from a smarter future and ensuring they are not left behind. As we move to an increasingly flexible and localised energy system, we are making sure that our new approach to social value encourages and measures 'enabled benefits'. This means taking into account future benefits such as maximising participation in flexibility services to reduce the need for traditional network reinforcement, or running local investment workshops to increase the low carbon generation capacity connecting to the network in each licence area.

2.36. Our approach has been developed by conducting research with a range of companies to reach a better understanding of social value measurements. An independent expert assesses the merits of various approaches, including willingness to pay, social return on investment and key valuation resources including the government's 'green book' and Citizens Advice consumer valuation studies. The result will be the development of an agreed methodology, including tested and formalised processes, a consistent value database and a handbook outlining the rules of application agreed by DNOs.

2.37. It is essential we are fully transparent in our workings to enable customers to understand the process we have followed and hold us to account. By adhering to a consistent process, we can measure our impact on society more accurately, ultimately benefitting our customers and stakeholders.

How WPD's CVPs has been identified

2.38. In Ofgem's Business Plan Guidance, a CVP must have a social return on investment between £3 and £10 million and the combined value of all CVPs submitted should not exceed £50 million. The total number of proposals should not exceed 10.

2.39. The assessment of CVPs is part of the Business Plan Incentive (BPI) mechanism. It forms stage 2 of this mechanism as shown in Figure SA-02.4 which is an extract from Ofgem's Business Plan Guidance Document issued in April 2021.

Quality	Cost
Stage 1: Penalty of 0.5% of Totex if minimum requirements not met	**Stage 4:** CDIR on ambitious costs vs an independent benchmark (high confidence costs only)
Stage 2: Reward based on Consumer Value Proposition (CVP)	**Stage 3:** 10% penalty on poorly justified costs (lower-confidence baseline costs only)

Net reward/penalty capped at 2% of allowed Totex
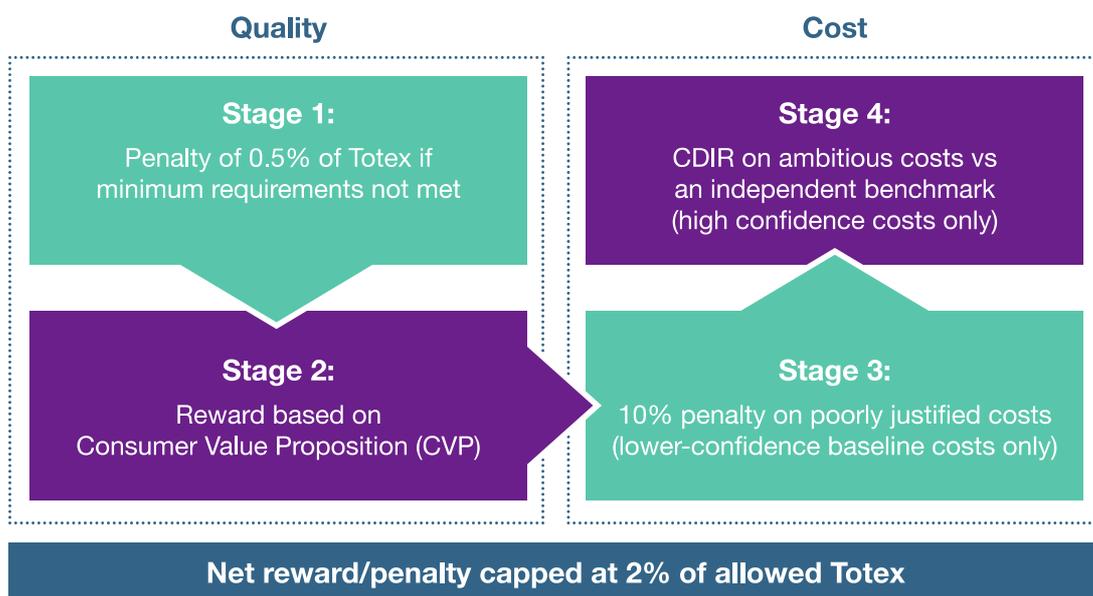
Figure SA-02.4 Ofgem's Business Plan Incentive structure

2.40. Ofgem has highlighted five key areas where CVPs would be considered:

- Services to vulnerable customers.
- Services to major connection customers.
- Exceeding baseline Environmental initiative.
- Exceeding baseline Distribution System Operator (DSO) activities.
- Exceeding baseline whole systems.

2.41. However, potential CVPs are not restricted to these five areas and may be submitted in areas not on this list.

2.42. As with all our areas of our Business Plan, we set out to co-create our vision with stakeholders starting with a blank sheet of paper. We began by capturing stakeholders' high level priority areas for action and the overall positive outcomes they would like WPD to deliver in RIIO-ED2. Within these priority areas, they identified a number of key priorities and considerations, before spontaneously naming hundreds of other potential commitments. We then followed the process described in figure SA-02.5 to develop our core and wider commitments. Some of these commitments have formed the basis of our core commitments as detailed later in this annex and fit within the structure of outputs required by Ofgem, such as licence conditions (LO), price control deliverables (PCDs) and output delivery incentives (ODI).

2.43. Commitments which did not fit within this structure but were strongly supported by stakeholders will be delivered as part of WPD's wider commitments. Where possible, these commitments will be subject to a traditional cost benefit analysis to determine how they can be delivered in the

Develop a long list of commitments stakeholders want WPD to deliver
(Stakeholders workshops and deliberative focus groups - Q1&2 2020)

Identify high level areas of social value
(Willingness to pay research - Q2 2020)

**Identify potential 'wider commitments' that deliver against these high value areas
(and use this value to inform the scale/scope of first draft commitments)**
(Synthesis reports and CEG engagement - Q2&3 2020)

**Assess whether these commitments and service levels go beyond
minimum requirements and are therefore within CVP scope**
(Assessment against CVP requirements outlined in Ofgem's Business Plan Guidance)

**Present likely CVP commitments back to stakeholders to seek qualitative
views on the value of outcomes that will be delivered**
(Stakeholder workshops - Q4 2020)

Measure the specific social value delivered by each stakeholder agreed commitment
(Social value research Q4 2020 and Q1 2021)

Figure SA-02.5 Commitments flow

most efficient way. Outcomes which are likely to be qualitative, for example, those that improve the resilience levels of customers in vulnerable situations and help them to cope during a power cut have been identified as delivering significant customer value.

WPD's Consumer Value Propositions for RIIO-ED2

2.44. Where possible, we will always report direct, quantifiable financial impacts of our actions (such as direct savings to customers achieved by WPD's fuel poverty projects). We will also seek to value the benefits of our actions using agreed industry methods such as Ofgem's Cost Benefit Analysis template. Where outcomes are qualitative, we will apply social value research to these proposals, applying the consistent methodology developed as part of the joint DNO commissioned exercise.

2.45. We have identified eight initiatives where we believe that WPD is going beyond the baseline requirements of a DNO and where we believe we meet the criteria set out in Ofgem's Business Plan Guidance.

2.46. Each one these CVP proposal has a detailed justification document numbered CVP-1 to CVP-6 which are part of our full submission pack – please refer to these documents to see the full analysis of each CVP including the social return on investment calculations.

2.47. These CVPs are well informed and have been subject to extensive stakeholder consultation and acceptability testing prior to their final submission as part of our final submission Business Plan published in December 2021.

CVP-1 Ensure WPD is a net zero business by 2028 and adopt a stretching science-based target of 1.5 degrees celsius

2.48. The government has committed to reduce all greenhouse gas emissions to net zero by the year 2050. This will require transformational change across the energy sector, transport, heating and environmental policy. We will be at the forefront of this transformation. We plan to become a net zero company by a much more ambitious date of 2028, a full twenty-two years ahead of the wider UK target.

2.49. Not only will we deliver against this goal to reduce our own impact on the environment, we intend to be a leader in this area, setting an example to customers and other businesses within the energy sector, proving that net zero is achievable if we take on ambitious goals. Being a leader on this front will also help us understand the challenges faced by our customers, and other parts of the energy system, in their own transitions. This will enable us to support them in the changes that they need to make.

2.50. In preparing WPD in becoming a sustainable organisation, we are committing to a science-based target of 1.5 degrees and striving to become a net zero business by 2028.

2.51. We recognise the importance of significantly reducing our business carbon footprint (BCF). For this reason, we will deliver the following actions by the end of RIIO-ED2 to reduce our BCF to become net zero by 2028 (excluding network losses). For RIIO-ED2, we have identified and planned nine schemes to help achieve this as part of CVP-1. These schemes cover a wide range of activity, demonstrating the broad scope and scale of what we need to do in order to hit our 2028 goal. These schemes include activity to:

- Cut carbon emissions from our fleet vehicles.
- Improve the energy efficiency of our buildings.
- Increase use of battery-powered generation during fault restoration.

- Proactively share knowledge and expertise, e.g. by sharing best practice and working collaboratively with other DNOs and organisations.

2.52. WPD intends to undertake the schemes identified here and utilise greenhouse gas removal initiatives and offsetting to ensure that net zero is achieved by 2028.

2.53. A carbon emissions target is defined as science based if it is in line with reductions needed to keep the global temperature increase below 2°C above pre-industrial temperatures. We have set a more ambitious 1.5°C SBT, which has been verified and accepted by the UN Science Based Target Initiative (SBTi).

CVP-2 Proactively partner with every local authority in our region to help them develop ambitious Local Area Energy Plans

2.54. One of the challenges of energy system decarbonisation is that the solutions required to deliver net zero ambitions will vary by geography and local building types. This is often not reflected in national level analysis. This risks national policies needing additional nuance and risks limiting their effectiveness when applied nationwide. To help fill this void, local area energy planning has been introduced to inform, shape and enable key aspects of the transition to a net zero carbon energy system.

2.55. WPD is a strong supporter of this process as the delivery of a decarbonised energy system will in part depend on local leadership, engagement and initiative taking. This is a product of the scale of the challenges of the systemic changes required and how they vary between places, and the array of stakeholders that will need to be involved in making them.

2.56. However, local area energy planning is still in its infancy and research by Citizens Advice[1] shows that plans, strategies, commitments and approaches vary greatly across England and Wales. One of the concerns set out by Citizens Advice is that local plans are often driven by an aim to achieve net zero as quickly as possible and that these plans are not always accompanied by detailed costings which could result in inefficient plans or plans that do not fully reflect the preferences of local areas and their residents. The research also found that there is limited support for local authorities and stakeholders, and that they are concerned about having the expertise and capacity to deliver.

2.57. This is where WPD can make a significant positive difference. Through this CVP, we can help every local authority in our region to deliver ambitious local area energy plans that facilitate an efficient and timely decarbonisation of the energy system. We are well placed to this given the work we have done in developing Distribution Future Energy Scenarios (DFES) which assess different regional pathways to net zero. Over the last two years we have mapped the data behind this onto local authority boundaries, enabling us to bring unique and detailed insights in this space.

2.58. We plan to undertake the following activities to help local authorities develop ambitious local area energy plans:

- **Engagement**: We engage extensively with all relevant stakeholders to ensure that we are well placed to support local authorities with their plans as well plan the future of our own networks. This will focus on engaging with 130 local authorities and local enterprise partnerships to understand their plans for housing, transport and industrial development. We will also engage with GDNs on potential future heating solutions for different local areas to help develop whole system solutions.

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[1] Citizens Advice (May 2021), "Look before you LAEP: Ending the postcode lottery of local area energy plans"

- **Provision of accessible information to local authorities***: We will proactively make available our DFES data in a format that is both relevant to local authorities (based on their geographical boundaries) and accessible (providing support for them to help understand technical issues where required).
- **Dedicated resource:** We will provide 4 local authority engineers who will be dedicated to supporting local authorities in the development of their plans. They will provide the technical expertise necessary help local authorities understand the options they face and to help them develop ambitious plans. This will help fill 2 of the gaps identified by the Citizen's Advice report on expertise/capacity to deliver and having plans underpinned by transparently estimated costs.
- **Co-development of plans:** Our dedicated engineers will work with local authorities on the development of their plans. They will discuss with the local authorities their local building plans energy transition targets and provide a sense check of these against historical run-rates and the forward-looking connections pipeline to ensure the plans are built on robust assumptions. We will work with them to make sure that their plans recognise the capabilities of the distribution network to help ensure that any spare capacity can be utilised and to help keep costs down. This will ensure that the plans are built on robust technical evidence using techniques which consider the whole energy system merged with local authorities' own ambitions and policy objectives.
- **Sharing of best practice:** As identified by the Citizens Advice study, the approach adopted across the country has been inconsistent to date. We are aware that some local authorities are further advanced than others and they have different levels of capability. As part of this proposal, we will seek to share best practice amongst local authorities to ensure a levelling up of the quality of these plans and to improve the impact that they can have.

2.59. This proposal will also help WPD in the planning of its own network development as our plans will be better informed by more robust local authority plans and this will help promote efficiency in our strategic network planning decisions.

2.60. Due to the wide and ambitious scope of this proposal we consider that it sits across two of the activity areas outlined by Ofgem for CVPs in its Business Plan guidance:

- Proposals that demonstrate approaches to DSO activities that clearly go beyond the baseline expectations set out in our roles and principles for DSO.
- Proposals that exceed the minimum requirements that we have set out for whole system approaches.

CVP-3 Establish Community Energy Engineers to support the development and delivery of community-based energy schemes to drive the UK's achievement of net zero

2.61. The energy sector is moving towards decentralised models of energy generation, enabled by community-led projects championing renewables, energy demand reduction and flexible supply. Many of these projects are wholly owned and/or controlled through energy community groups or through a partnership with commercial or public partners. With this, local communities can benefit from a range of social, environmental and economic benefits, including:

- Fuel poverty alleviation.
- Energy engagement and education.
- Community funds from renewable energy projects.

2.62. To help unlock such benefits, we have provided support to the communities and their representatives through accessible guides which has proved successful. For example, our 'Connecting Community Energy' guide contains useful information for local energy groups looking to develop their own renewable energy projects and connect to our network. Additionally, WPD developed 'Community Energy Surgeries' for our customers.

2.63. Separately, our stakeholder engagement workshops, we have received feedback from community energy groups, highlighting the requirement for a dedicated resource (outside of the innovation team) to support them.

2.64. Extending our support beyond the successful accessible guides, and following stakeholder engagement, WPD will:

- Employ four full-time **Community Energy Engineers**, each dedicated to a license area.
- Introduce Community Energy Surgeries.

2.65. Community Energy Engineers (CEE) will act as the single point of contact for their licensed area, bringing deep local knowledge and energy expertise. CEEs will be responsible for:

- Holding personalised one-to-one sessions with community energy groups.
- Providing advice and guidance on relevant topics including new connections (e.g. sustainable energy use, insulation grants).
- Helping mobilise and getting schemes 'off the ground'.
- Acting as consistent source of support for the community energy groups, introducing or liaising with relevant additional contacts are necessary.
- Holding webinars and community energy festivals to raise awareness on topics such as low carbon technologies and renewable connections.
- Publicising case studies of community energy groups.
- Providing relevant training.
- Updating guides.
- Monitoring performance of community energy surgeries.
- Developing ideas for innovation proposals.
- Providing WPD responses to regulatory changes affecting community energy groups.
- Reporting on community energy group engagement.

2.66. With our dedicated CEEs, WPD will expand the number of Community Energy Surgeries (to consult local community energy groups) and Net Zero Surgeries (to advise local authority staff). Our aim is to investigate and arrange such surgeries within two working days of a request place via our system.

2.67. According to the criteria set out by Ofgem in relation to the submission of Consumer Value Proposition (CVP) initiatives, WPD understand that this initiative would sit under "Proposals that exceed the baseline expectations set out for **Environmental Action Plans**".

CVP-4 Build decarbonised communities and local energy schemes by funding solar PV on schools in areas of high economic deprivation

2.68. As a business, we are driven by our commitment to support the transition to a net zero economy. The uptake of LCTs across our customer base plays an essential part in this. This proposal will enable us to contribute even further to the achievement net zero.

2.69. We also need to ensure that we help vulnerable customers navigate this rapidly changing landscape. We have a clear commitment in embracing an inclusive energy transition, in which no one is left behind. This is about transitioning towards a greener, more sustainable energy system and ensuring that everyone is on board in the process.

2.70. This initiative is a clear example of this commitment. We are proposing an additional support for schools and other local community buildings which could potentially fall behind in the energy transition. This idea is not only about providing financial support but about actively targeting those users who may be less able to access more sustainable energy options without support.

2.71. We will engage with schools in areas of high economic deprivation to support them to establish solar PV at their locations, allowing them to be energy efficient and to reduce their bills.

2.72. WPD is well placed to identify the areas that should be prioritised in delivering this initiative. This will be achieved through the use of social indicator data already available to us, which we use to help identify vulnerable or fuel poor customers.

2.73. We are proposing the delivery of a solar PV starter pack worth £10,000 through an expert partner, alongside a related educational programme supporting the net zero agenda. This package would result in immediate benefits for schools arising from energy savings.

- Each starter pack will allow for the installation of 30 panels.
- This would mean an installed capacity of 10kW, which could generate approximately 10MWh – this being dependant on the specific region where installed.
- The £10,000 starter pack will incorporate a maintenance budget covering a two year period.

2.74. These energy savings would be generated from both the implicit savings due to the schools' own production of energy plus those ones related to the impact of behavioural changes coming from the use of smart meters.

2.75. Additional benefits are expected to arise as a result of educational activities at schools, facilitated by the educational materials provided in the starter pack. These would be achieved by promoting Science, Technology, Engineering and Mathematics (STEM) learning activities for local students.

2.76. According to the criteria set out by Ofgem in relation to the submission of CVP initiatives, WPD believes that this initiative would sit within the category of "Proposals that demonstrate approaches to providing services to vulnerable consumers that clearly go beyond the baseline expectations" in relation to the specific support to be provided to schools and other vulnerable stakeholders.

2.77. Beside this, the initiative could also be classified under "Proposals that exceed the baseline expectations set out for Environmental Action Plans" due to the expected outcome of reducing the carbon footprint of those schools and other entities supported.

2.78. WPD's current activities in this space are focused on providing relevant support and information to vulnerable customers through the appropriate channels. This also includes supporting them in connecting to the network should they decide to adopt local energy generating schemes.

2.79. This initiative goes beyond these activities. It involves leading our most vulnerable customers in the right direction, supporting them in the adoption of LCTs when they may not have been otherwise able.

2.80. Baseline expectations for vulnerable customers and around our Environmental Action Plan are set out in the RIIO-ED2 Business Plan guidance.

2.81. Within this guidance there are baseline expectations relating to the identification of blockers to participating in a smart, flexible energy system. These baseline expectations are that we will:

- Have an extensive network of partnerships with a range of organisation types, from multiple sectors including other utilities.
- Make use of referral channels and signposting support for customers. This will primarily be done through customer service teams, but we expect DNOs to seek opportunities to maximise consumer touchpoints.
- Be involved in two-way flow partnerships supporting vulnerable customers, in line with the companies' understanding of social issues in their region. This should include the network company having direct involvement in the end to end process of delivering support,

providing expertise and co-creating schemes. Where appropriate, we would expect to see example schemes where the DNO is taking a leading role.

- Have a clear process for identifying which partnerships are likely to be most effective at delivering benefits through co-operative working. This should be clearly linked to the priority areas of focus of the strategy, in particular addressing fuel poverty and supporting those at risk of being left behind by the energy system transition.

2.82. The Business Plan guidance also sets out baseline expectations in relation to Environmental Action Plans. This initiative provides additional environmental benefits beyond those covered by WPD's Environmental Action Plans and will support the overall energy transition by allowing vulnerable customers to adopt LCTs earlier than they would be able to otherwise.

2.83. This CVP initiative entails activities that go beyond these baseline expectations due to the following reasons:

- Delivery of solar panels to vulnerable stakeholders such as schools in areas of high economic deprivation exceeds baseline expectations, as this involves WPD playing a much more proactive role, far beyond simply referring or signposting support for customers. Hence, this CVP surpasses baseline expectations for vulnerable customers.
- Adoption of LCT systems by our customers does not relate to our BCF. Hence, any actions supporting the reduction of our customers' carbon footprint goes beyond baseline expectations for EAPs.
- Furthermore, this initiative would also actively promote the education of local students in environment and sustainability topics. This type of social engagement with local communities is aimed at promoting Net Zero agenda values among our future generation of customers. This effectively would result in long-term benefits across local communities. However, this is not included as one of the baseline expectations for EAPs in RIIO-ED2, hence exceeding these.

CVP-5 Offer 1.2 million PSR customers a bespoke smart energy action plan every two years

2.84. This initiative aims to offer 1.2 million PSR customers a bespoke smart energy action plan every two years. We are committed to delivering a fair and just transition to a smart network and net zero carbon economy. Our stakeholders are very supportive of our robust and ambitious plan which ensures those who are vulnerable or living in fuel poverty are not left behind and are able to access the opportunities to reduce costs.

2.85. The proposed bespoke smart energy plan would be targeted at PSR customers to provide them with the following services:

- Customer access to domestic flexible and/or aggregated services:
- Enabling customers to make direct savings on their energy bills by joining community-level flexibility tariffs where they can reduce their energy costs by adjusting the timing of their energy use.
- Connection aid and advice for adoption of Electric Vehicles (EVs) and LCTs, potentially in collaboration with local authorities:
- Providing specialist advice and referrals to key partner agencies to provide vulnerable customers with the support required to navigate the process to make use of LCTs and EVs, accelerating the shift towards these technologies as a result of WPD's support.
- Linking customers to relevant energy community schemes based on customer location:
- Enabling customers to access lower-cost energy produced locally via community energy schemes in their region.
- Energy savings and energy efficiency measures:
- Promoting a range of interventions to ensure customers are on the most appropriate energy tariff, supporting their applications to energy efficiency schemes and installation of smart

meters - all intended to give our customers greater control over their energy use, resulting in direct savings.

2.86. According to the criteria set out by Ofgem in relation to the submission of Customer Value Proposition (CVP) initiatives, this initiative would sit under "Proposals that demonstrate approaches to providing services to vulnerable consumers that clearly go beyond the baseline expectations."

2.87. This initiative also fits within the category of "Proposals that exceed the baseline expectations set out for Environmental Action Plans" due to the support towards smart energy plans.

2.88. WPD's current activities in this space are focused on providing relevant support and information to vulnerable and PSR customers through the appropriate channels.

2.89. This proposal goes beyond this by proactively engaging and developing bespoke energy plans for PSR customers which is not an activity we have undertaken before.

2.90. Baseline expectations for vulnerable customers and around our Environmental Action Plan are set out in the RIIO-ED2 Business Plan guidance.

2.91. Within this guidance there are baseline expectations relating to the identification of blockers to participating in a smart, flexible energy system. These baseline expectations are that we will:

- Have an extensive network of partnerships with a range of organisation types, from multiple sectors including other utilities.
- Make use of referral channels and signposting support for customers. This will primarily be done through customer service teams, but we expect DNOs to seek opportunities to maximise consumer touchpoints.
- Be involved in two-way flow partnerships supporting vulnerable customers, in line with the companies' understanding of social issues in their region. This should include the network company having direct involvement in the end to end process of delivering support, providing expertise and co-creating schemes. Where appropriate, we would expect to see example schemes where the DNO is taking a leading role.
- Have a clear process for identifying which partnerships are likely to be most effective at delivering benefits through co-operative working. This should be clearly linked to the priority areas of focus of the strategy, in particular addressing fuel poverty and supporting those at risk of being left behind by the energy system transition.

2.92. The Business Plan guidance also sets out baseline expectations in relation to Environmental Action Plans (EAPs). This initiative provides additional environmental benefits beyond those covered by WPD's EAP and will support the overall energy transition by allowing PSR customers to best take advantage of the opportunities available to them via LCTs.

2.93. This CVP initiative goes beyond these baseline expectations due to the following reasons:

- Baseline expectations around the delivery of services to vulnerable customers require to make sure that uses referral channels and provides signposting support to take vulnerable customers on board as part of the energy transition process. WPD would exceed baseline expectations for vulnerable customers, as this initiative entails proactively engaging with these vulnerable customers to guarantee they receive appropriate advice. WPD would also follow up with customers to assist with the adoption of this advice.
- Baseline expectations refer to providing support to vulnerable customers without specifying any specific minimum targets. Through this initiative, WPD is committing to reach out to 60% of customers on the PSR. This represents a significant commitment to support these customers.
- Adoption of greener systems by our customers such as EVs and LCTs does not relate to our business carbon footprint. Hence, any actions supporting the reduction of customers' carbon footprints go beyond baseline expectations for EAPs.

CVP- 6 Deliver an annual £1 million "Community Matters" Fund, funded entirely by shareholders, to achieve positive community outcomes in relation to vulnerability, environment and education.

2.94. This initiative aims to support 300,000 vulnerable people in various communities across our region. This would be achieved through an ad-hoc contribution from our shareholders. To back this activity, this proposal also entails establishing a volunteering scheme encouraging staff to volunteer at local community projects.

2.95. WPD proposes a programme of interventions in certain areas to lock benefits for local communities, particularly for vulnerable customers and for the environment. These areas cover the following:

- **STEM**. Activities aimed to encourage more participation in science, technology, engineering and maths and the future career opportunities the subjects can offer.
- **Diversity**. Activities aimed to encourage diverse workforces and inclusivity for all.
- **Safety**. Activities aimed to encourage people to stay safe when working and carrying out leisure activities.
- **Low carbon and energy efficiency**. Activities aimed at reducing carbon emissions and energy use to support a more sustainable future and Net Zero.
- **Vulnerability**. Activities aimed at looking after those who most need help, essentially those that would be classed as vulnerable.

2.96. Detailed programme of activities planned under each of the intervention areas described below:

- Recruitment and training of STEM ambassadors across a range of sectors and organisations, i.e. enables opportunities to work with schools, mentor, careers advice, etc.
- Supporting wider STEM education activities, e.g. more STEM resources in schools; develop a WPD online resource offering; Duke of Edinburgh initiatives; Scouts/Guides education packages.
- Green power initiatives and technology installations in schools and community centres.
- Funding for skills training packages.
- Mentoring services.
- Innovation initiatives to encourage diversity in the workplace.
- Community defibrillators.
- Improving access to local safety centres.
- Expansion of local safety centre education packages and outreach.
- First aid training and resource packages.
- Expert training packages for key groups working in and around the electricity network, e.g. farmers and construction.
- Community advice services.
- Conservation activities, such as tree planting, biodiversity and park renovations.
- Innovation initiatives to remove barriers to participate in a low carbon future, e.g. support for disabled drivers to access electric vehicle charging.
- Home deliveries for the socially isolated.
- Befriending services.
- Meal support.
- Improving online and face-to-face access services for organisations supporting vulnerable customers.
- Priority Service Register additions.
- Fuel poverty alleviation services.

2.97. To be able to deliver these activities, WPD proposes to establish a volunteering scheme encouraging our staff to volunteer at local community projects. As a clear commitment of our support for this, we will allocate 1,000 staff volunteering days every year during RIIO-ED2.

2.98. According to the criteria set out by Ofgem in relation to the submission of CVP initiatives, this initiative would sit under the category of "Proposals that demonstrate approaches to providing services to vulnerable consumers that clearly go beyond the baseline expectations" in relation to the specific support to be provided to users in deprived areas.

2.99. Beside this, the initiative may also be classified under "Proposals that exceed the baseline expectations set out for Environmental Action Plans" due to the expected outcome of reducing the carbon footprint of entities other than WPD.

2.100. WPD's current activities in this space are focused on providing relevant support and information to vulnerable and PSR customers through the appropriate channels. To the extent WPD may have delivered initiatives with similarities to those proposed here, this CVP goes beyond any past activity, as all costs will be met by shareholders.

2.101. This initiative goes one step beyond these duties. It entails WPD providing additional support to their most vulnerable customers through a dedicated series of interventions, such as the development of WPD online resource offering to support wider STEM activities and the provision of expert training packages for key groups working in and around the electricity network.

2.102. Baseline expectations for vulnerable customers and in relation to our Environmental Action Plan are set out in the RIIO-ED2 Business Plan guidance.

2.103. Baseline expectations for understanding new forms of vulnerability include expectations that we will:

- Have an extensive network of partnerships with a range of organisation types, from multiple sectors including other utilities.
- Make use of referral channels and signposting support for customers. This will primarily be done through customer service teams, but we expect DNOs to seek opportunities to maximise consumer touchpoints.
- Be involved in two-way flow partnerships supporting vulnerable customers, in line with the companies' understanding of social issues in their region. This should include the network company having direct involvement in the end to end process of delivering support, providing expertise and co-creating schemes. Where appropriate, we would expect to see example schemes where the DNO is taking a leading role.
- Have a clear process for identifying which partnerships are likely to be most effective at delivering benefits through co-operative working. This should be clearly linked to the priority areas of focus of the strategy, in particular addressing fuel poverty and supporting those at risk of being left behind by the energy system transition.

2.104. The Business Plan guidance also sets out baseline expectations in relation to Environmental Action Plans. This initiative provides additional environmental benefits beyond those covered by WPD's Environmental Action Plan and will support reducing the community carbon footprint by carrying out a tree planting programme designed to mitigate our society's environmental impact.

2.105. This CVP initiative goes beyond these baseline expectations for the following reasons:

- Baseline expectation for vulnerable customers account for WPD making sure that uses referral channels and provides signposting support to take vulnerable customers on board as part of the energy transition process. WPD would exceed baseline expectations for vulnerable customers, as this initiative involves support for wider issues such as community support activities for vulnerable customers, i.e. home deliveries, and facilitating mental health programmes for the wider community.
- Promotion of tree planting and other similar initiatives does not relate to our Business Carbon Footprint. Hence, any actions supporting the reduction of communities' carbon footprint represent activity beyond baseline expectations for EAPs.

2.106. A summary of the value that will be delivered by WPD's Business Plan is shown in figure SA-02.6.

CVP	CVP commitment summary	Core commitment	Cost of delivery	Number of customers benefitting	Social value per benefitted customer	Total social value delivered (£m)*
1	**Ensure WPD is a net zero business by 2028,** and adopt a stretching science-based target of 1.5 degrees.	10	£89.1 million	8 million (indirect)	£1.80	**£14.4 million**
2	**Proactively partner with every local authority in our region** to help them develop ambitious Local Area Energy Plans.	3	£2.3 million	8 million (indirect)	£3.49	**£27.9 million**
3	**Establish Community Energy Engineers** to support the development and delivery of community-based energy schemes to drive the UK's achievement of net zero.	8	£1.26 million	8 million (indirect)	£0.39	**£3.1 million**
4	**Build decarbonised communities and local energy schemes** by funding solar PV on schools in areas of high economic deprivation.	25	£2.7 million	8 million (indirect)	£2.88	**£23.0 million**
5	**Offer 1.2 million PSR customers** a bespoke smart energy action plan every two years	18	£5.0 million	0.12 million (indirect)	£59.17	**£7.1 million**
6	**Deliver an annual £1 million 'Community Matters' Fund,** funded entirely by shareholders, to achieve positive community outcomes in relation to vulnerability, environment and education.	23	£5.8 million	8 million (indirect)	£2.09	**£16.7 million**

Figure SA-02.6 Consumer Value Proposition summary table

3. Delivering an environmentally sustainable network

3.1. The full details of our activities associated ensuring that WPD has a smart and flexible network is covered in Chapter 3 'Delivering a Smart and Flexible Network'. However, we have summarised our core commitments in this section.

What our stakeholders said about a smart and flexible network

3.2. What our customers considered to be their top priorities for delivering smart and flexible network is described in figures SA-02.7.

	Stakeholder Top Priorities	Core Commitment which Addresses this Priority
1	Flexibility is viewed by stakeholders as a key part of the provision of network capacity as load grows on the network	Core Commitment 6
2	Information should be clear and enable domestic, commercial and community customers to understand how they can participate in providing flexibility services. WPD must, therefore, work to facilitate network flexibility and educate end-customers.	Core Commitment 6
3	In order to best support our customers' planning and unlock innovative approaches to decarbonisation, stakeholders want us to provide clear, simple and easy access to high quality data.	Core Commitment 6
4	Stakeholders believe that sharing data could facilitate and encourage collaboration, resulting in more efficient outcomes for customers.	Core Commitment 17
5	Collaboration with other utilities and companies within the energy industry is viewed as hugely important by stakeholders in order to arrive at the most effective and efficient solutions.	Core Commitment 6
6	Stakeholders expect WPD's collaboration with others, particularly with local authorities, will help to identify areas of growth can be accurately identified.	Core Commitment 7
7	By acting as a facilitator to bring together the many parties involved in emerging energy service markets, stakeholders believe WPD could make customer participation in flexibility services easier and cheaper.	Core Commitments 5 and 6

Figure SA-02.7 Stakeholder top priorities for a smart and flexible network

3.3. While we have been at the forefront of developments across the industry, we want to build on these during RIIO-ED2 to make sure they are seen as simple, fair and transparent.

3.4. We have established processes for procuring and using flexible services as an alternative to conventional network reinforcement.

3.5. We have established a registration process for participation in the market and procurement cycles that provide multiple opportunities for flexibility providers to tender their services. There is a weekly process to identify when flexibility services will be required, using an automated platform for dispatching flexibility and transparent published rules about payments for the services provided.

3.6. To ensure that the processes that we have implemented are working correctly and giving flexibility providers the opportunity to engage with the market, we will introduce a customer satisfaction survey to identify opportunities for further improvements.

A smart and flexible network

Enabling the connection of low carbon technologies

3.7. Decarbonisation of transport, heating and electricity production will lead to more electric vehicles, heat pumps and distributed generation. Many of these low carbon technologies will be connected at lower voltages, making it necessary to ensure that there is sufficient capacity for the LCTs to connect.

3.8. WPD will be proactive in identifying parts of the network that are heavily loaded and providing more capacity. We will use smart meter data, increased amounts of network monitoring and enhanced analysis to identify where network reinforcement is required. We will also look at ways in which the LCTs loads can be managed to make greatest use of existing network capacity, which may involve steps such as controlling when electric vehicles are charged.

3.9. Together these proactive actions will enable more LCTs to connect.

Core Commitment 1	Drive the achievement of net zero across our regions sooner than 2050 in line with stakeholder plans (some areas as early as 2028), by ensuring network capacity is available.

3.10. This is a newer commitment which was not included as a core commitment in our first draft Business Plan. In the plan, we pledged to support our customers to meet their net zero ambitions. Following stakeholder feedback, this message was reinforced as a new, standalone, core commitment. Our stakeholders have told us they support this new core commitment. The results are shown below in figure SA-02.8.

Ensure capacity availability to enable net zero
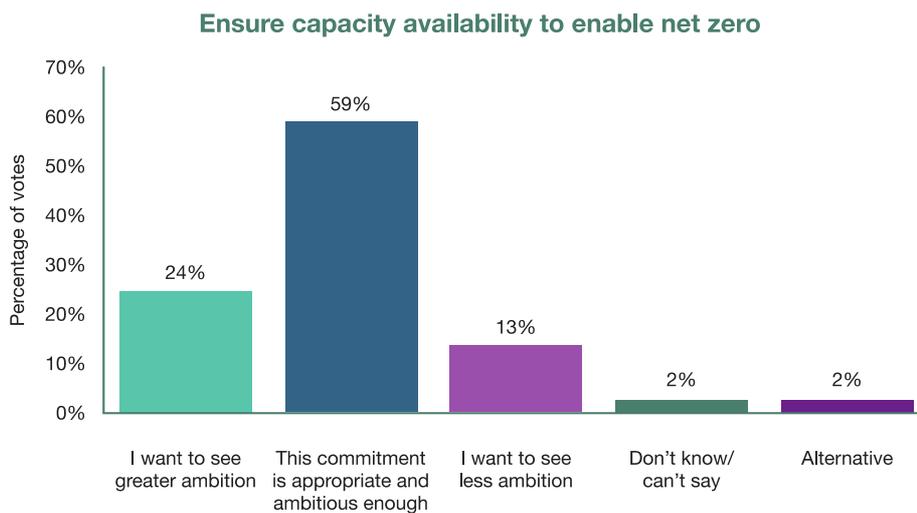
Ensure capacity availability to enable net zero to be achieved across our regions sooner than 2050 (some areas as soon as 2030), in line with the ambitions of stakeholders in each region

Figure SA-02.8 Stakeholder consultation feedback results – Capacity availability to enable net zero

3.11. Our stakeholders fully supported this core commitment which now features in our Business Plan.

Core Commitment 2	**Ensure customers are able to connect low carbon technologies quickly and easily, with the network being ready to connect at least an additional 1.5 million electric vehicles and 600,000 heat pumps by 2028.**

3.12. Our stakeholders want us to meet the increased demand of LCT take up. In our first draft Business Plan, we committed to ensure that connections could be effectively made within our area. After consulting with our stakeholders the results are shown in figure SA-02.9.

LCT connections
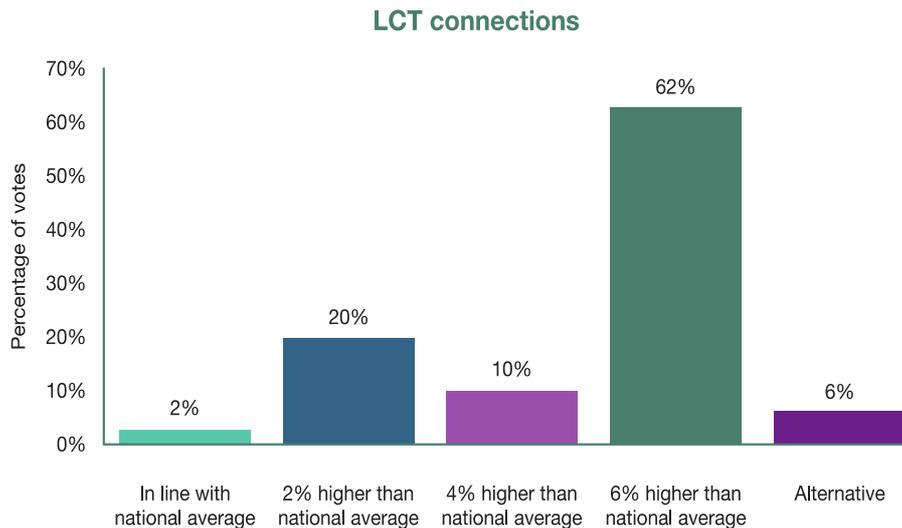
Make it easy as possible for our customers to connect to LCTs, such that WPD connects more than national average connecting in the UK (prorated by our number of customers)

Figure SA-02.9 Stakeholder consultation feedback results – Level of connections of LCTs

3.13.

3.14. Overall, our stakeholders agreed with making LCT connections but asked us to be clearer on the actual levels of connections. We have since reworded the commitment to specify the minimum number of electric vehicle charging connections and heat pumps included in our plan.

Local authority engagement

Core Commitment 3	**Make it easy for customers to adopt LCTs and achieve net zero in their region much sooner than 2050, by driving the delivery of ambitious local area energy plans and proactively engaging all 130 local authorities each year via 90 local energy surgeries.**

3.15. Our stakeholders felt that it was important that we continue to engage actively with local authorities. In our first draft Business Plan, we proposed to engage on a three yearly basis. As part of the first draft Business Plan consultation, our stakeholders were asked what level of engagement we should adopt and were given five options. The results are shown in figure SA-02.10.

3.16. As part of our consultation, our stakeholders felt that we should be ambitious and engage once every year and this is now included in our core commitment.

3.17. A number of local authorities have established comprehensive future energy plans, while others are still in the process of development. WPD has utilised these plans in developing network requirements and to inform the future energy scenarios that have been developed for each licence area, which in turn influence the amount of network expansion and reinforcement that is required to meet local energy demands.

Local area energy plan development
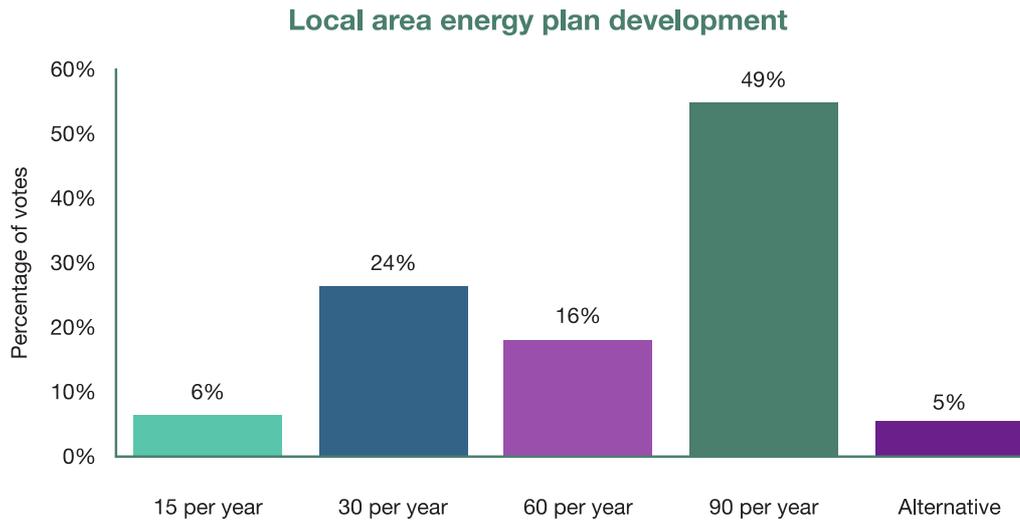
Hold local energy surgeries for local authorities, supporting them to develop local energy plans

Figure SA-02.10 Stakeholder consultation feedback results – Local area energy plan development

Producing and using Distribution Future Energy Scenarios (DFES)

Core Commitment 4	Deliver a network to meet the evolving needs of our customers by aligning our future energy forecasts with the plans of local regions and the Electricity System Operator (ESO), by updating WPD's Distribution Future Energy Scenarios every 12 months.

3.18. Our stakeholders want us to produce regular, accurate low carbon technology forecasts. In our first draft Business Plan, we proposed to update out LCT forecast every year. As part of our consultation, our stakeholders were asked whether this frequency was acceptable. The results are shown in figure SA-02.11.

3.19. The majority of our stakeholders felt that this was an acceptable frequency and supported the commitment. However, we took the opportunity to reword the commitment to make it even clearer.

3.20. Since 2015, WPD has been producing and publishing Distribution Future Energy Scenarios (DFES) documents, which forecast the volumes and regional distribution of low carbon

technology uptake in our region. DFES are key to our continual assessment of the distribution network, helping us to identify and forecast network constraints.

Working with the ESO to update our forecasts

Engage with stakeholders and the Electricity System Operator to update
WPD's Distribution Future Energy Scenarios for all four license areas
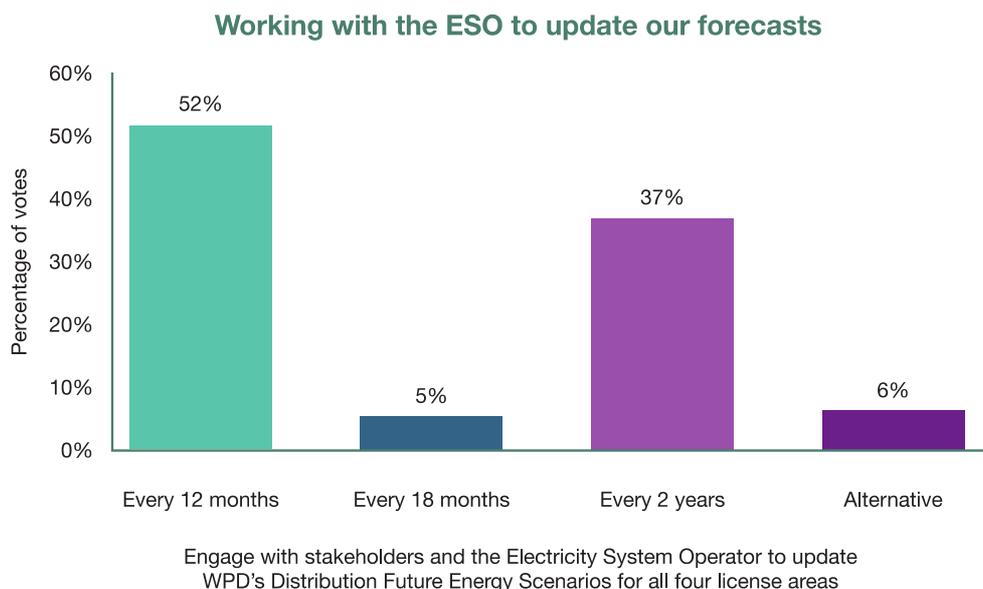
Figure SA-02.11 Stakeholder consultation feedback results – Working with the ESO to update our forecasts

3.21. These constraints are used with flexibility procurement markets and decision processes to determine what actions will be taken on the network. These will feed into a Distribution Network Option Analysis process which will determine the most cost effective approach to providing capacity on the network.

3.22. This analysis will inform the plans included in our Long Term Development Statement and Network Development Plan to be published during RIIO-ED2.

3.23. We are committed to updating the DFES each year so that we can use the latest information to inform our plans.

3.24. As part of the DFES process, we speak to local authorities about their ambitions for local developments and net zero related aspirations. Engaging with local authorities provides a two-way communication channel. It enables WPD to understand their local plans and factor these into knowledge about network constraints as well as allowing local authorities to understand some of the consequences of their proposals and to refine their own Local Area Energy Plans.

3.25. Interaction with the Electricity System Operator allows WPD to provide an input into the national Future Energy Scenarios (FES), by providing more detailed information about local developments. It also allows a greater understanding of the assumptions behind the FES.

3.26. Together these approaches to engagement allow the DFES to be refined and be more representative of likely future network needs. We therefore propose to engage regularly with stakeholders to help to improve the DFES analysis.

Assessing alternatives to conventional reinforcement

Core Commitment 5	Keep bills as low as possible and minimise the requirement for load related reinforcement by adopting a 'flexibility first' approach in order to maximise the utilisation of the existing network.

3.27. Our stakeholders want us to ensure that flexibility was considered for key network investment decisions. In the first draft Business Plan, we proposed to adopt a 'flexibility first' policy for all decisions to reinforce our network at 33kV and above. As part of our consultation, we asked our stakeholders if our ambition was acceptable. The results are shown in figure SA-02.12.

Flexibility first

100% load related reinforcement (primary) decisions
to include an assessment of flexibility alternatives
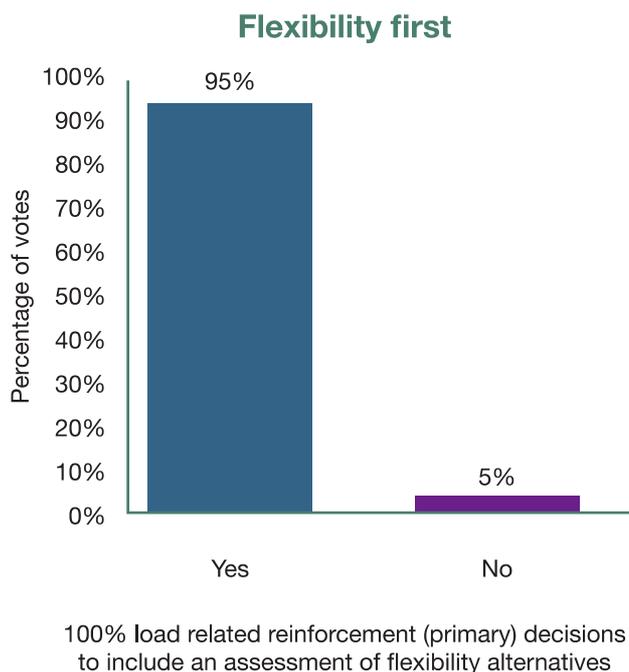
Figure SA-02.12 Stakeholder consultation feedback results – Flexibility first

3.28. Our stakeholders fully supported the commitment but felt we needed to be clearer about the outcome. We have since reworded this core commitment to provide greater clarity.

3.29. WPD has established two stages of notification of future network constraints: signposting provides a longer term (five year) indication of network constraints using a range of future energy scenarios while forecasting is a shorter-term (up to two year) view of requirements based upon greater certainty of requirements.

3.30. The forecasting process links with the procurement process which has tender rounds every six months. This means that there are at least three opportunities for flexibility providers to consider whether they can provide services for the specified network need.

3.31. Having established these processes, they will be continued into RIIO-ED2 to ensure that there is the greatest opportunity to identify flexibility providers to offset the need for conventional reinforcements.

Core Commitment 6	Unlock capacity from the existing grid and therefore avoiding the need for reinforcement, by stimulating the development of flexibility markets and implementing simple, fair and transparent rules for procuring flexibility services, with a six monthly tender and exceptional customer satisfaction for flexibility services.

3.32.   Our stakeholders were clear that the use of flexibility and creating a competitive flexibility market is important to them. So in our first draft Business Plan, we included a core commitment to encourage the development of flexibility markets. As part of our consultations, our stakeholders were asked if they felt that commitment was appropriate. The results are shown in figure SA-02.13.

Encouraging flexibility markets

Produce forecasts of potential flexibility requirements
in order to undertake a flexibility tender every 6 months
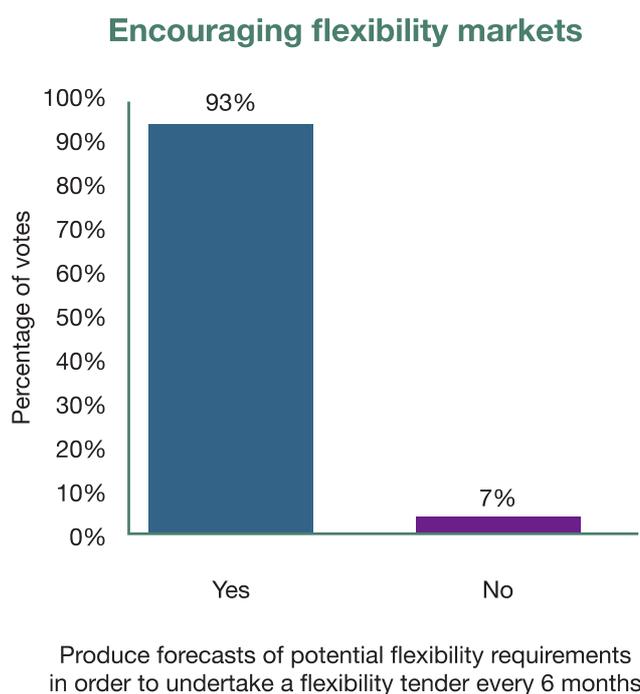
Figure SA-02.13 Stakeholder consultation feedback results – Encouraging flexibility markets

3.33.   Overall, there was 93% support for this commitment although stakeholders felt we should be clearer in our wording. We have since reworded this commitment, in response to their feedback.

Neutral market facilitation

3.34.   WPD recognises that the development of a neutral market for provision of flexibility is important to enable participants to be confident that they will be treated fairly.

3.35.   As a neutral market facilitator, we are open and transparent about the rules of engagement and decisions that are made.

3.36.   We are transparent about the needs of the network in the data that we publish about network constraints, transparent about pricing structures, transparent about contractual arrangements and transparent about how we will dispatch flexibility. We have also established a separate process to make our decision making as independent as possible.

3.37. While we believe that we act in a neutral way, we want to ensure that market participants share our confidence. That is why we propose to work with third parties to establish an approach for carrying out external scrutiny the way we operate the flexibility market.

Assessing alternatives to conventional reinforcement

3.38. WPD has adopted a 'flexibility first' approach to considering how it will resolve network constraints.

3.39. Where constraints are identified, we use the signposting and forecasting processes to give flexibility providers clear picture of requirements. These processes are carried out before conventional reinforcement would need to start and therefore help to identify whether there is sufficient flexibility available to resolve a network constraint.

3.40. This approach ensures that we consider a flexible alternative for every network constraint.

3.41. We propose to continue with this approach refining the process and identifying more ways of encouraging third parties to consider providing flexibility services.

Flexible connections

3.42. To connect new consumers to the network, we may need to increase existing capacity to allow customers to use the amount of load or export their full generation output. These connecting customers fund a proportion of these costs based on their requirements.

3.43. The work to increase capacity may be extensive, take a long time and be costly to the connecting customer. Through a range of innovation projects and trials, WPD has adopted flexibility connection options allowing connections to be made more quickly and at a lower cost, on the agreement that the connection capacity may be curtailed during periods of high demand on the network.

3.44. Active Network Management (ANM) allows control systems to interact with the customers' equipment to manage the load. The infrastructure to allow ANM is being rolled out across all areas during RIIO-ED1, which means that all future customers will be able to benefit from this form of flexible connection.

Evolution of flexible connection options

3.45. WPD has developed two main types of flexible connections: Active Network Management requires the most complex arrangements including direct communication with the connection to manage load; and time profiled connections where output is only permitted during certain periods of time based on historical assessment of network loading.

3.46. We will continue to develop these options for making flexible connections and seek to develop further options.

Whole system collaboration

Core Commitment 7	Deliver solutions that achieve the greatest social benefit to customers by utilising a whole system approach for major reinforcement to improve network efficiency. We will undertake three regional collaboration trial schemes by 2025 involving gas, electricity, water, waste, transport and heating sectors.

3.47. Our stakeholders want us to embrace the whole systems approach to ensure that we deliver the most cost effective energy solution. In our first draft Business Plan we proposed to undertake two whole system collaboration schemes. As part of our consultation, our stakeholders were asked what level ambition we should achieve. In the consultation, we gave our customers five options and the results are shown in figure SA-02.14.

Whole system collaboration

Undertake whole system collaboration schemes with other DNOs and the ESO
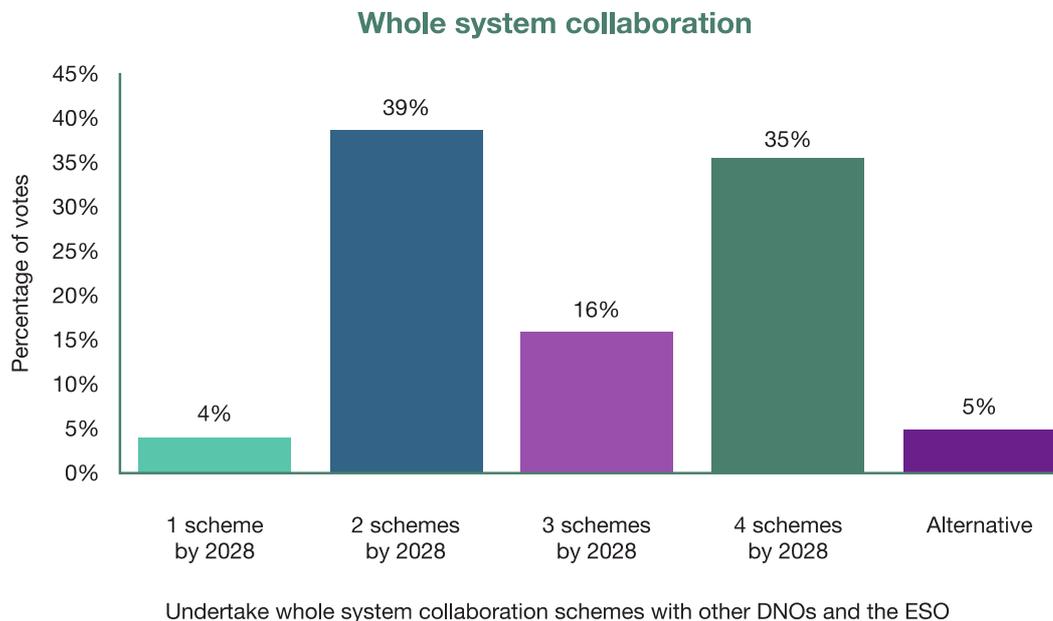
Figure SA-02.14 Stakeholder consultation feedback results – Whole system collaboration

3.48. Our stakeholders wanted us to go even further than we proposed and requested that we do more. However, as there was no consensus on how much more they wanted to see, we have increased the ambition to three collaboration schemes.

3.49. The changing use and operation of the network is impacting the whole electricity system and the move from gas to electricity leads to changes across energy sectors. This means that development of the network needs to be viewed in a wider context to ensure that the most efficient and effective solutions are adopted for customers.

3.50. WPD has worked with National Grid during RIIO-ED1 to carry out collaborative assessments of network requirements in the South West, which has led to greater utilisation of flexibility to manage constraints on both the distribution and transmission networks.

3.51. We anticipate that there will be further whole system challenges that will emerge during RIIO-2, some of which may be initiated by transmission or other DNOs. We propose to work collaboratively to ensure that network issues are resolved by determining the best solution.

Community energy

3.52. Community energy is the delivery of community led renewable energy, energy demand reduction and energy supply projects with the underlying objective of addressing climate change. These projects may be are wholly owned and/or controlled by communities or through a partnership with commercial or public partners. Community projects deliver collective social, environmental and economic benefits to the local community such as fuel poverty alleviation, energy engagement and education, and community funds from renewable energy projects

What our stakeholders said about community energy

3.53. What our customers considered to be their top priorities for community energy is described in figures SA-02.15.

	Stakeholder Top Priorities	Core Commitment which Addresses this Priority
1	Stakeholders identified supporting community energy projects as one of the highest priorities for WPD in relation to driving innovation and new services	Core Commitment 8
2	Community energy groups state they are often interested in developing low carbon technologies renewable connections but tend to be slow to react to opportunities around flexibility, which stakeholders felt WPD should try and influence	Core Commitments 8 and 9
3	Stakeholders raised the importance of WPD providing education and support, as some groups may lack the knowledge and expertise in relation to the energy network	Core Commitments 8 and 9
4	Stakeholders discussed the importance of community energy projects as a base for innovation extensively, especially as it was felt that this could benefit a lot of people and would also help to share knowledge and information	Core Commitments 8 and 9
5	In particular stakeholders would like to see projects developed specifically to ensure community energy schemes benefit from Ofgem's Innovation funding mechanisms	Core Commitments 9
6	As well as supporting the low carbon transition, stakeholders can see a role for community energy schemes to help address fuel poverty, with community energy champions able to advise their neighbours as they will be trusted and can build on the existing relationship	Core Commitments 8 and 9

Figure SA-02.15 Stakeholder top priorities for community energy

Community energy surgeries

Core Commitment 8	**Actively support the expansion of green, renewable energy generation and help local communities to decarbonise and lower their bills, by connecting at least 30 community energy groups to the network each year. We will hold 60 community energy surgeries per year and providing a dedicated WPD community energy representative to assist with connection and flexibility offers.**

3.54. It was clear form our stakeholders that they needed support to understand the opportunities associated with community energy schemes. In our first draft Business Plan, we committed to hold 30 community energy surgeries each year to support local groups. As part of our consultation, our stakeholders were asked how often we should hold surgeries. We gave our customers five options and the results are shown in figure SA-02.16.

Community energy surgeries

Hold community energy surgeries for local community energy groups
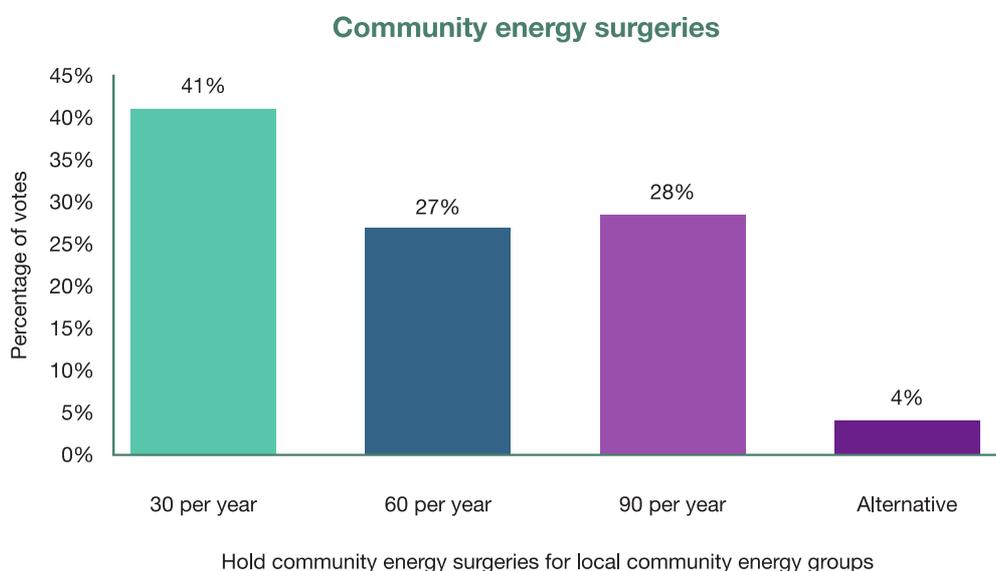
Figure SA-02.16 Stakeholder consultation feedback results – Community energy surgeries

3.55. Our stakeholders wanted us to go further (55% requesting greater than 30 per year) and hence we opted to hold 60 surgeries and incorporated this into our core commitment.

3.56. We have provided support to the communities and their representatives through accessible guides. Our 'Connecting Community Energy' guide is a 'how to' for any local energy group looking to develop its own renewable energy project and connect to our network.

3.57. Some organisations prefer to discuss matters in more detail with our engineers which is why we will implement Community Energy Surgeries involving our local teams. These allow us to engage more closely with groups at the start of their journey and provide guidance on how best to connect to the network and operative efficiently and effectively.

Innovation for community energy

Core Commitment 9	Support a growth in community energy schemes by facilitating their access to available funding streams.

3.58. To help community and local energy organisations develop new business models, and to help us understand how we might best manage a decarbonised and decentralised electricity system, we have partnered with communities on several network innovation projects.

3.59. We will continue to look for opportunities to work with community energy groups on new innovative ideas.

3.60. Our stakeholders not only wanted us to support them with information and advice on community energy projects but also to assist them to get access to central funding. This core commitment was not in our first draft Business Plan. However, its inclusion in our second draft Business Plan was supported by our stakeholders. We gave our customers five options and the results are shown in figure SA-02.17.

Funding streams for community energy groups

Facilitate access to funding streams by providing support to community energy groups when making submission to our calls for ideas
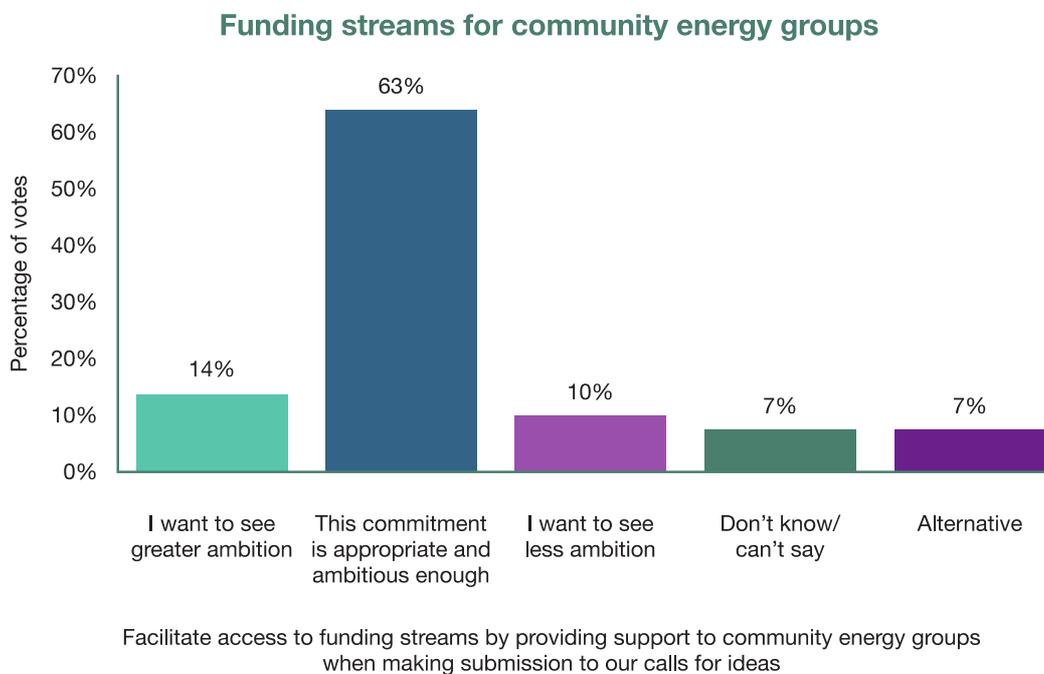
Figure SA-02.17 Stakeholder consultation feedback results – Funding streams for community energy groups

Environment and sustainability

Our Environment Strategy

3.61. We are committed to environmental sustainability and actively support the UK and Welsh government's 2050 net zero target. We also believe passionately in minimising our impact on the environment and are striving to reduce our own business carbon footprint (BCF).

3.62. We take our responsibility to respect and protect the environment seriously and believe we should be a role model, inspiring others to follow our lead. We strongly believe we have a social obligation to respect and protect the environment in which we operate - a view that is firmly supported by our stakeholders.

3.63. During RIIO-ED1, we moved towards a more proactive, performance-driven approach, managing the impact of our business activities on the environment. So far, we have achieved the following environmental Business Plan outputs:

- 36% reduction of our business carbon footprint
- 83% reduction of the tonnage of waste from our operations being sent to landfill
- 59% reduction in fluid leaked from fluid filled cables
- Reduction of SF_6 gas leaks outperforming our 17% reduction RIIO-ED1 target on a like-for-like basis (i.e. excluding figures from scrapped equipment returned empty)
- Removal of 33km of overhead lines in National Parks and Areas of Outstanding Natural Beauty so far, meaning we are on track to achieve our target of 55km by the end of RIIO-ED1

3.64. Decarbonisation, environmental sustainability and the protection of the environment are key concerns for WPD, our stakeholders and wider society. WPD's environmental strategy details our commitment to becoming a net zero carbon organisation and to ensuring that environmental responsibility remains a key part of all of our activities into RIIO-ED2 and beyond. This is shown in figure SA-02.18.
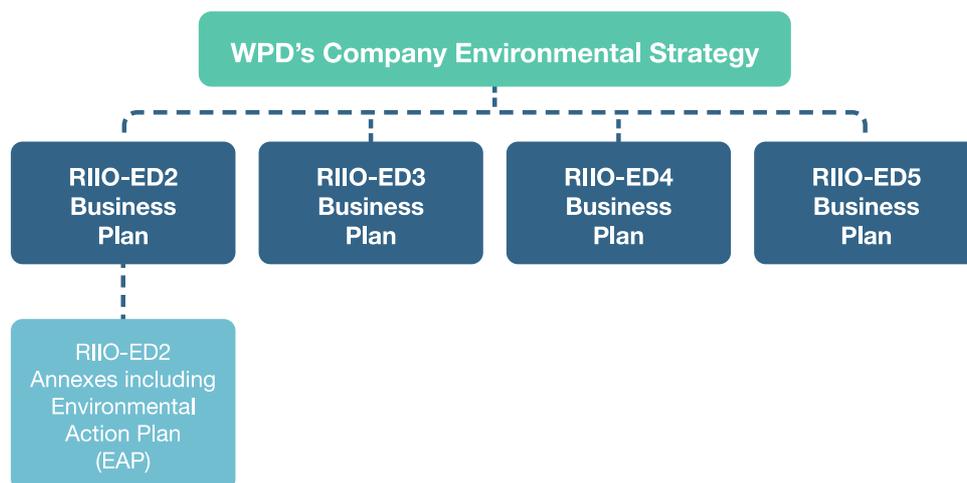
Figure SA-02.18 Environmental Strategy document

3.65. The WPD Environment Strategy provides a management approach which sits above current and future RIIO-ED price control periods and sets out our two environmental strategic focus areas.

3.66. Our Environment Strategy is available on our website at yourpowerfuture.westernpower.co.uk/downloads-view/42069 and in appendix A07 of this document

Achieving net zero

3.67. We accept that post-industrial increases in global atmospheric carbon dioxide pose the greatest risk to maintaining a healthy, sustainable and balanced environment. For this reason, we are committed to becoming a net zero carbon organisation ahead of the current UK and Welsh government's aspiration of 2050. Our final submission Business Plan and Environmental Action Plan will play a key role in mapping out our progress in achieving this ambition.

Being environmentally responsible

3.68. WPD recognises that we have a duty to protect the environment and to play our part in ensuring that the region in which we operate will be environmentally sustainable. Improvements in resource use, waste management, biodiversity, reducing leaks from WPD network equipment, sharing best practice and working collaboratively with other DNOs and organisations are key environmental responsibility priorities for WPD and is embedded within our RIIO-ED2 Business Plan and Environmental Action Plan.

3.69. Throughout RIIO-ED2 and beyond, we will place environmental sustainability at the forefront of our activities and embedded within our operations.

How we have developed the plan with stakeholders

3.70. Clear and honest communication with our stakeholders is at the heart of our strategy and therefore an integral part of our Business Plan for RIIO-ED2. Understanding their concerns and priorities for our business and wider society for the decades ahead is essential as we develop our actions and initiatives for a net zero future.

Stakeholder top priorities for the environment

3.71. What our customers considered to be their top priorities for environment is described in figures SA-02.19.

	Stakeholder Top Priorities	Core Commitment which Addresses this Priority
1	Set a target for zero carbon emissions from your fleet, for example, by 2030	Core Commitment 10
2	Replace smaller vehicles with EVs and larger vehicles with biogas or hydrogen	Core Commitment 10
3	Monitor all transport associated with your business, using telematics, to reduce the number of miles travelled	Core Commitment 10
4	Eliminate the use of SF_6 and carry out research to find alternatives	Core Commitment 12
5	Use science-based targets to improve biodiversity, aiming for a net gain	Core Commitment 10
6	Put in an ambitious tree replacement programme and promote this good work	Core Commitment 10
7	Ensure buildings are powered by renewable energy	Core Commitment 10
8	Reduce the use of single use plastics	Core Commitment 10

Figure SA-02.19 Stakeholder top priorities for the environment

3.72. All of the priorities listed above are addressed in our in this Annex and our RIIO-ED2 Environmental Action Plan (EAP), along with many others generated by our stakeholder engagement programme.

A summary of our Environmental Action Plan

3.73. The WPD RIIO-ED2 Environmental Action Plan (EAP) sets out all of our RIIO-ED2 ambitions to meet our stakeholders' net zero and environmental responsibility expectations, by reducing our environmental impact and decarbonising our business activities.

3.74. The EAP details how we will continue to reduce our environmental impact during RIIO-ED2 by building on our RIIO-ED1 performance. This will involve further reductions in the impact caused by our existing assets (FFC, SF_6, waste) as well as the indirect environmental impact linked to our supply chain management, resource use and understanding of our natural capital assets.

3.75. The EAP also provides further details on our commitment to decarbonise our business operations and significantly reduce our own business carbon footprint (BCF) by committing to the Science Based Target Initiative (SBTi).

3.76. Our Environmental Action Plan is available on our website at yourpowerfuture.westernpower.co.uk/downloads-view/42066 and in appendix A08 of this document
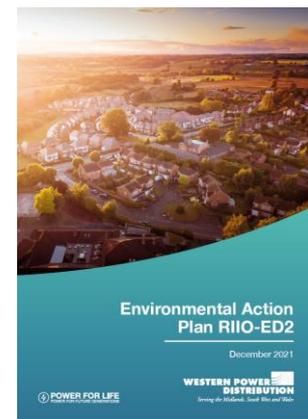
Our environmental core commitments for RIIO-ED2

3.77. This section of Annex 2 considers our two strategic key target areas, '*Becoming net zero'* and '*Being environmentally responsible'* and provides details on the specific RIIO-ED2 core commitments which we have developed to help us to achieve these two strategic targets during RIIO-ED2.

3.78. Under each core commitment, we will provide information on how and why we arrived at the commitment, our current performance in relation to the commitment, if applicable, the actions related to WPD's business carbon footprint (BCF).

Business carbon footprint

3.79. WPD accepts that post-industrial increases in global atmospheric carbon dioxide pose the greatest risk to maintaining a healthy, sustainable and balanced environment. For this reason, WPD is committed to becoming a net zero carbon organisation ahead of the current UK & Welsh governments' aspiration of 2050.

3.80. Feedback from our stakeholder engagement events has identified that reducing our carbon footprint during RIIO-ED2 in relation to our own activities is the significant issue and should be a key priority for WPD throughout RIIO-ED2, showing leadership in the industry and society and setting ambitious targets for improvement.

3.81. By following a SBT trajectory not only do we demonstrate our commitment to limiting our impact on global warming but we also have a clear pathway to achieving our operational net zero business carbon footprint.

3.82. Our stakeholders want us to be a role model for delivering the government target of net zero by 2050. In light of this we included a proposal to ensure that our business carbon footprint was net zero by 2043 – seven years ahead of the government's target. As part of our first draft Business Plan consultation, our stakeholders were asked what level ambition we should apply to reduce our business carbon footprint. In our consultation, we gave our customers five options and the results are shown in figure SA-02.20.

WPD's Business Carbon Footprint ambition

Reduce internal Business Carbon Footprint to be net zero by following a verified science based target to limit the climate impact of our activities
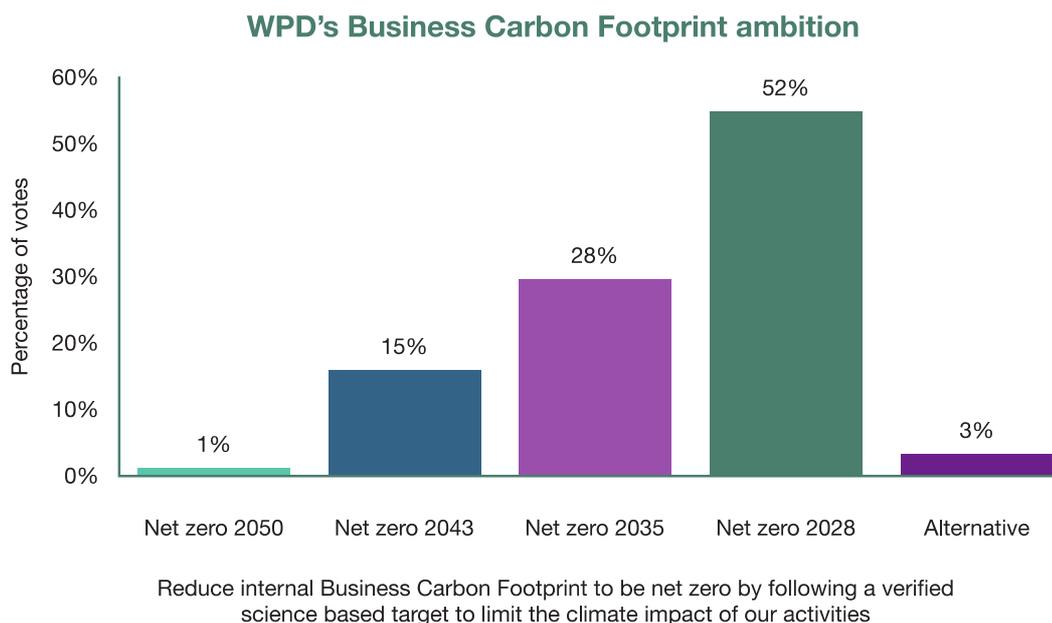
Figure SA-02.20 Stakeholder consultation feedback results – Business Carbon Footprint ambition

3.83. Our stakeholders were clear that they want us to be very ambitious. In light of this, we have amended our core commitment to the very challenging target of achieving net zero by 2028.

Core Commitment 10	Achieve net zero in our internal business carbon footprint by 2028 (excluding network losses) and follow a verified science based target of 1.5°C to limit the climate impact of our activities.

3.84. WPD is committed to becoming a net zero carbon organisation by 2028 ahead of the UK and Welsh government's 2050 target. To meet this target, we will:

- Reduce our operational Business Carbon Footprint (BCF)
  Our annual BCF takes into account the associated carbon emissions from a number of our business activities including the emissions from our operational transport fleet, the energy used in our buildings and electricity substations, releases of SF6 (sulphur hexafluoride) – a greenhouse gas used as an insulator by manufacturers of electrical switchgear - and the impact of journeys taken by those on company business. Throughout RIIO-ED2, we will broaden the scope of our annual BCF to include carbon emissions linked to waste management and additional indirect emissions. By reducing our BCF (not including network losses), we will remain on track to be a net zero carbon business by 2028, 22 years ahead of the UK and Welsh government's target date of 2050.

- Set Science Based Targets
  We have had our Science Based Targets (SBTs) of 1.5°C verified and accepted by the UN Science Based Target Initiative (SBTi). We will limit the impact on global carbon emissions and achieve a SBT. Our carbon emissions target is defined as science-based if it is in line with reductions needed to keep the global temperature increase below 2°C above pre-industrial temperatures, which at 1.5°C it is.

- Measure embodied carbon
  Embodied carbon is the carbon footprint of a material or a product. It takes into account how much greenhouse gas (GHG) is released throughout the supply chain and is often measured over the entire life cycle of a product or service. During RIIO-ED2, we will work collaboratively to measure the embodied carbon associated with our major projects as well as a number of our key operational activities.

- Reduce our network losses
  Alongside our own operational BCF, we also report the carbon emissions associated with our network losses. These must be accounted for in any SBTs to which we commit.

3.85. In line with this and our commitment to becoming a net zero carbon organisation by 2028, we will:

- Replace a minimum of 79% of our existing operational fleet with electric vehicles by 2028
- Cut carbon emissions from our operational fleet by 50%
- Include only non-carbon technology cars in our company car scheme by 2025
- Reduce business travel by encouraging more remote working and virtual meetings
- Ensure that all new WPD offices and depot buildings achieve an 'Excellent' BREEAM rating.
- Install LCT generation at all suitable depots and offices to produce electricity to meet operational demand
- Purchase all building energy from a renewable source and account for this in our reported Business Carbon Footprint
- Reduce energy use in our buildings. By the beginning of RIIO-ED2, we expect the carbon emissions associated with building energy use, which includes electricity, gas, WPD telecoms and substation use, will be approximately 40% lower than current levels.
- Install electric vehicle charging infrastructure at all our operational sites and key substation sites

3.86. Furthermore, by adopting a sector-wide method of calculating BCF we can ensure consistent and accurate reporting of BCF across WPD.

3.87. Benefits to the customer of achieving this commitment will include:

- A cleaner more sustainable environment
- Reduced carbon emissions
- Healthier, more stable and sustainable ecosystem
- Increased amenity value from ecological balance and cleaner environment e.g. reduced particulate matter air pollution.

Business carbon footprint – WPD Operational Transport

3.88. The equivalent carbon emissions (tCO_2e) from our own operational transport fleet accounts for 41% (2020/21 data) of the total WPD Business Carbon Footprint. It is therefore important that throughout RIIO-ED2 we have a targeted core commitment which specifically aims to reduce the carbon emissions associated with our operational vehicle fleet. Our stakeholders have told us that this is a significant issue for them with '*Replace smaller vehicles with EVs and larger vehicles with biogas or hydrogen'.* It is ranked as the second highest priority area for WPD to action during RIIO-ED2.

3.89. We are also supportive of the government's Clean Growth Strategy. This sets ambitious targets to achieve near zero emissions from transport by 2050. A significant challenge and opportunity exists as a large proportion of vehicles will become electric.

3.90. WPD's strategy is to deliver a plan with low emission targets that are demanding in terms of timelines and involve early adoption of new technology to support our net zero commitments, the UK government's ambitions and the demands of our stakeholders. That is why we have a plan to adopt EV technology for 89% of our transport fleet by the end of 2028, resulting in 100% replacement of WPD's van fleet by the end of 2030, with the exception of larger specialist vehicles.

3.91. Following our strategy, we expect our operational fleet carbon emissions will be 25% lower than existing levels by the beginning of RIIO-ED2;

- 2019/20 - 20,014 tCO_2e
- 2022/23 –14,874 tCO_2e

3.92. By the end of RIIO-ED2, operational fleet emissions will have reduced further by approximately 90%. 2027/28 – 1,544 tCO_2e (see figure SA-02.21).

WPD operational fleet tCO_2e
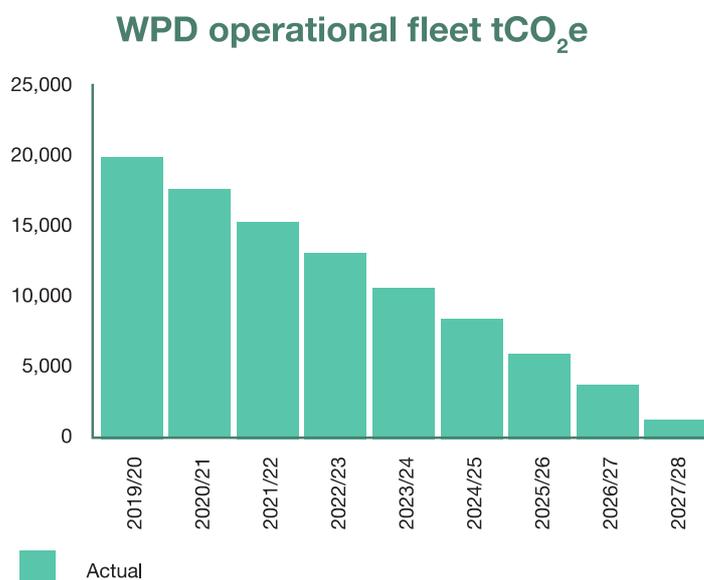
Figure SA-02.21 WPD operational fleet emissions

3.93. The adoption of electric vehicles during RIIO-ED2 is calculated to provide the following cumulative CO_2 savings (see figure SA-02.22).

EV adoption tCO$_2$e savings
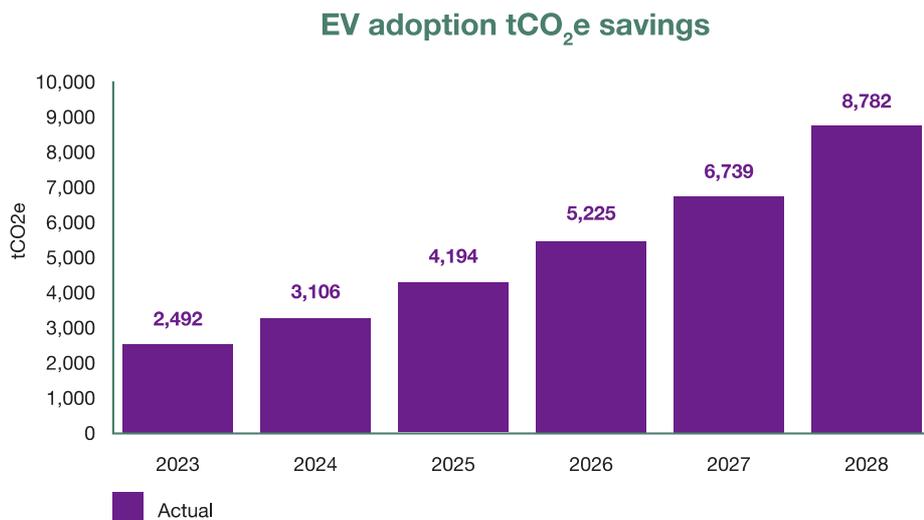
Figure SA-02.22 Electric vehicle adoption savings

3.94. Benefits to the customer of achieving this commitment will include:

- A cleaner more sustainable environment, reduced noise and reduced atmospheric particulate matter
- Healthier, safer, cleaner local communities
- Reduced carbon emissions
- Healthier, more stable and sustainable ecosystem
- Increased amenity value from ecological balance and cleaner environment

Business carbon footprint – WPD buildings

3.95. The equivalent carbon associated with our building energy use is the second largest contributor to the WPD annual Business Carbon Footprint at 30%. Our stakeholders also consider 'Ensuring that buildings are powered by renewable energy' to be a key priority for WPD. As a result, we have created a separate specific core commitment to install renewable local generation at all suitable offices and depots.

3.96. WPD regards solar PV to be an important, cost-effective contributor towards decarbonising its non-operational property portfolio by mitigating electrical import from the national grid. In light of this we have undertaken an extensive study of our depots and offices to assess their potential for economic PV exploitation in RIIO-ED2.

3.97. Solar PV systems generate energy all through the year but, in the winter months, production is typically around 20% of the maximum summer output and throughout the day solar energy production usually peaks at midday. Therefore, the maximum output from a PV array is at midday, mid-summer. As a licenced electricity distributor, we are not allowed to derive income from power which we have generated which is exported to the grid.

3.98. With this constraint in mind, there is little economic justification for us to install an array which generates more than our buildings' power needs, because the surplus will be exported with no financial return. If peak generation is midday in mid-summer, then it follows that the optimal array size should be calculated against our buildings' peak power requirements at that time. In other

words, it is uneconomic to buy an array which generates more power than our buildings can use at midday in mid-summer.

3.99. Evidence-based analysis has been undertaken of the total annual consumption of electricity at all of our sites, using half hourly meter readings. Optimised PV designs have been deduced from this information, together with data from site-by-site surveys and proprietary analysis software to calculate designs for PV arrays. Working within the economic limitations of the nil-export to grid constraint described above, we have deduced an economic sweet-spot at which both carbon offset and economic return are optimised.

3.100. Figure SA-02.23 provides a summary of the costs and benefits of this proposal for RIIO-ED2:

Total solar PV generating capacity (at peak periods)	3.152 MW
Total annual generation from solar PV	3,093 MWh
Electrical savings as percentage of total consumption	17%*
Total cost of PV installations	**£3.42m**
Estimated annual savings (at 13.3p/kWh)	£411,380
Return on investment in	8-9 yrs
Annual CO2 savings	1,452 tonnes/yr

(* In respect of the power which we buy from the grid, we will continue to source from suppliers whose generation sources are from sustainable technologies)

Figure SA-02.23 Photovoltaic savings

3.101. We operate from 60 offices that vary in age and construction. We know that when refurbishment of these buildings takes place, there are opportunities to improve their energy efficiency. We will, therefore, ensure that all new WPD buildings achieve an 'Excellent' BREEAM rating.

3.102. In light of the relatively modest 17% saving in consumption from PV arrays, additional studies are currently underway to identify opportunities to reduce power consumption at our depots and offices.

- We will make sure that heating, air conditioning and other appliances (such as office lighting) are fitted with appropriate controls to minimise consumption at times when areas of our buildings are unoccupied. This will include a review of all of our fossil-fuelled heating systems to identify candidates which are inefficient and therefore justify replacement with a more sustainable alternative.

- We will survey all of our buildings to identify opportunities to make them more energy efficient. This might include replacing windows which do not conform to modern thermal performance standards, or other measures to improve the thermal performance of the internal and external fabric of our buildings, such as wall or roof insulation, or the installation of heat recovery systems.

3.103. Benefits to the customer of achieving this commitment will include:

- A cleaner more sustainable environment
- Healthier and cleaner working environment
- Improved employee welfare
- Reduced carbon emissions
- Operational cost savings

Reduction of embodied carbon within our network

3.104. Our stakeholders have asked us to look beyond our 'business as usual' carbon footprint and to address the embodied carbon in our equipment and services.

3.105. Embodied carbon is the carbon footprint of a material or a product. While a carbon footprint can be used to express the associated carbon of operating a transformer, the embodied carbon would instead describe the carbon footprint of the manufacture, use and disposal of the transformer. Embodied carbon calculations therefore require an understanding of all materials (including extraction), methods of manufacture / construction and other related activities such as storage and transport, in-use and end of life disposal.

3.106. Ahead of RIIO-ED2, we will establish a methodology to assess and measure the embodied carbon associated with new projects. The methodology will incorporate procedures to determine the embodied carbon of purchased standard plant equipment, network installation activities, equipment operation and end of life processes.

3.107. During RIIO-ED2, we will look to understand and reduce the impact of embodied carbon in our network.

3.108. We will establish a baseline and an appropriate target to reduce embedded carbon on new major infrastructure projects.

3.109. By the end of RIIO-ED2, all new major infrastructure projects will include a carbon reduction plan, detailing how many tonnes of emitted and embedded carbon are in the equipment, materials and operational activities associated with the project. This new process will be a challenge for WPD and our suppliers and we plan to work closely with equipment manufacturers, material providers, stakeholders and staff to share best practice. We will also share our learning with colleagues across the sector through our links with the Energy Networks Association and other organisations.

Company car scheme

3.110. WPD's company car scheme is to be adapted to facilitate the removal of combustion engine vehicles by 2025. A pure EV Contract Hire Scheme has been commissioned during 2021 benefiting from the reduced Benefit in Kind of electric vehicles. The ordering of cars with internal combustion engines (ICE) will stop from mid-2022 enabling a natural transfer from the Employee Ownership Scheme to EV Contract Hire Scheme by 2025. There is no capital outlay by WPD for either scheme arrangement, although car leases are accounted for on company balance sheets.

Business mileage and travel

3.111. We will reduce business travel via the adoption of remote working where practical and in accordance with our policy for working from home. The combination of this framework for remote working and increased use of video technology for holding virtual meetings will reduce business travel mileage, reduce emissions and time spent travelling. While team working remains critical to WPD's success, it is clear that the business can still operate effectively using virtual and remote practices in a controlled framework, as demonstrated during the Covid-19 pandemic.

3.112. Benefits to the customer of achieving this commitment will include:

- Lower carbon emissions, helping to reduce the effects of global warming and preventing climate change
- Reduced use of raw materials
- A healthier, more stable and sustainable ecosystem
- Increased amenity value from a better ecological balance and cleaner environment

RIIO-ED1 business carbon footprint performance

3.113. To date during RIIO-ED1, we have achieved a 27% reduction in our Business Carbon Footprint (BCF) compared 2012/2013. Figure SA-02.24 shows the reported BCF throughout RIIO-ED1 to date and figure SA-02.25 shows a further breakdown of that carbon footprint.

Business Carbon Footprint - WPD

- Buildings energy usage
- Operational transport
- Business transport
- Fugitive emissions
- Fuel combustion
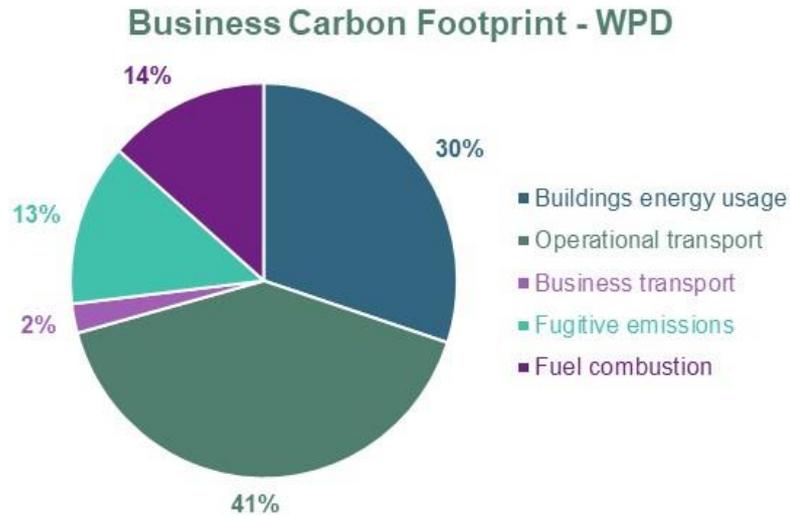
Figure SA-02.24 WPD's Business Carbon Footprint breakdown

Our annual BCF (tCO$_2$e) against RIIO-ED1 target
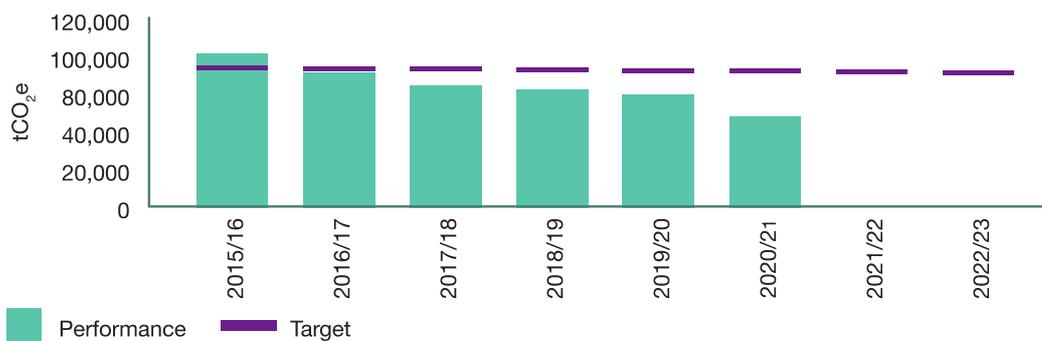
Figure SA-02.25 WPD's Business Carbon Footprint reduction (excluding losses)

Protecting our local environment

3.114. We have a duty to protect the environment in which we work and live and to play our part in ensuring that the region and environment in which we operate is protected.

3.115. We are mindful of the balanced inter-relationships between environmental and ecological receptors and how these affect socio-economic outcomes for our customer. Therefore, a holistic approach to managing our environmental impacts, both direct and indirect, in the context of the transition to a low carbon society and our partnerships through the Social Contract is paramount.

3.116. Our certified company-wide ISO14001 environmental management system helps us to ensure that any potential risk to the environment and the communities in which we operate is minimised and that we continually manage and improve our environmental performance.

3.117. Furthermore, our stakeholders have told us that improvements in environmental protection, resource use, waste management, biodiversity, land, air and water quality, reducing leaks from WPD network equipment, sharing best practice and working collaboratively with other DNOs and organisations including regulators, contractors and suppliers should be key environmental responsibility priorities for us in RIIO-ED2.

3.118. To achieve this during RIIO-ED2 we will;

- **Protect the local and regional environment** from damage and from the release of harmful substances, when carrying out our activities. During RIIO-ED2, we will focus on the protection of the natural environment in the communities we serve. We will continue to see challenging targets for SF_6, the reduction of fluid filled cable leaks, the removal of polychlorinated biphenyl (PCB) contaminated equipment, and the minimising of environmental damage from our network. We will endeavour to minimise the impact of our business activities on UK protected species of flora and fauna and will also aim to introduce a natural capital assessment tool for all new major infrastructure projects to enhance biodiversity and local amenity value.

- **Monitor our resource use and reduce waste**. During RIIO-ED2, we will continue to progress towards sending zero waste to landfill and we will monitor our use of resources and reduce the amount of waste material produced per £1M of annual turnover. Working in partnership with our suppliers, service providers and waste contractors, we will look to maximise the reusability of new materials and reduce waste.

3.119. We are committed to ensuring our activities do not have a harmful impact on the environment in which we operate - a standpoint shared by our stakeholders. In RIIO-ED2, we will reduce waste, support biodiversity, reduce leaks from network equipment, share best practice and work collaboratively with other DNOs and organisations.

3.120. We have developed the following seven core commitments for RIIO-ED2 to ensure that we meet our commitment to be environmentally responsible.

Fluid Filled Cables (FFCs)

Core Commitment 11	**Avoid damage to the environment by reducing the volume of oil leaked from fluid filled cables by 50% by 2028 and replacing 90km of the worst leaking circuits with non-oil alternatives putting WPD on target to remove all oil-filled cables by 2060.**

3.121. Our stakeholders want us to focus or reducing leaks form oil filled cables. In our first draft Business Plan, we proposed a reduction in fluid filled cable leaks by 50% and the replacement of 70km of our worst leaking circuits. As part of our first draft Business Plan consultation, our stakeholders were asked what level of ambition we should adopt to reduce the fluid filled cable leakage rate and replace worst performing circuits. In our consultation, we gave our customers five options and the results are shown in figure SA-02.26.
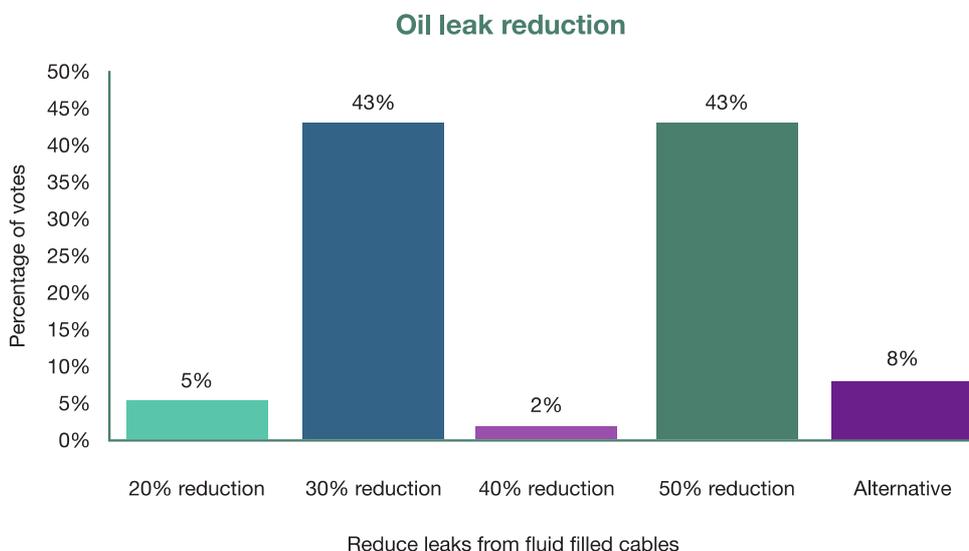
Oil leak reduction

Figure SA-02.26 Stakeholder consultation feedback results – Oil leak reduction

3.122. Our stakeholders were split between a 30% or 50% reduction but we have opted for the higher ambition commitment to align with the more ambitious target for fluid filled cable replacement. We also combined the two previous commitments into one to make our fluid filled cable strategy as clear as possible. Our stakeholders were clear that they wanted us to increase the number of kms of cable we replaced to 90km.

3.123. We operate and manage a network of over 730km of fluid filled cable (FFC). Older styles of cable contain oil to improve their insulation properties and to enhance cooling. Occasionally, from time to time, these older cables leak when equipment is damaged, seals deteriorate or as a result of changing ground conditions. When this happens, we take steps to ensure that any damage to the environment is minimised through the removal of contaminated ground and by fixing the leak as quickly as possible.

3.124. The risks associated with operating fluid filled cables (FFC) and related assets can be reputational, regulatory and financial. The primary risk is associated with the leakage of insulation oil into the environment, causing pollution.

3.125. Leaks typically occur as the cable sheath deteriorates with age at joint failures or as a result of third-party damage. We will also put in place measures to help reduce the overall number of leaks across our network.

3.126. For our stakeholders, the aim to 'Reduce the number of environmentally harmful leaks of greenhouse gases/oils from WPD's equipment' was ranked 6th out of 24 overall.

3.127. For these reasons, we will reduce network leaks from fluid filled cables by a further 30% from our current RIIO-ED1 position and replace over 70km of the poorest performing extra high voltage fluid filled cables (FFC) on our network.

3.128. To minimise environmental damage and to meet our commitment we will:

- Proactively inject all fluid filled cables that have significant leaks on our network with perfluorocarbon trace (PFT), a benign chemical that allows quick location and repair of leaks.

- Boost our efficiency when dealing with fluid filled cable leaks by improving response and taking intervention action at an earlier stage.
- Adopt new technologies, where appropriate, to support the ongoing proactive management of our fluid filled cable.
- Target cables with a history of high leak rates for replacement.

3.129. Additional mitigation may range from visual inspection or PFT tracing, to spot repair, sectional drain and seal or the full extraction of the cable.

3.130. During RIIO-ED1 to date, we have reported 75% fewer fluid filled cable (FFC) leaks. There has also been a 59% reduction in the total volume of oil from (FFC) lost, down from 44,582 litres in 2012/13 to 18,411 litres lost in 2020/21. This is illustrated in the figure SA-02.27 below:

Fluid filled (oil) cable leaks vs RIIO-ED1 reduction target
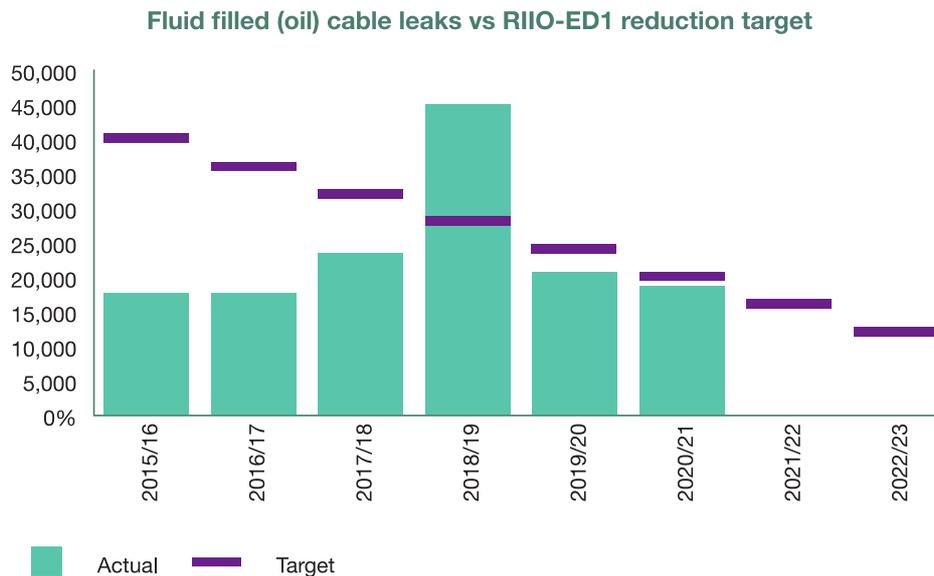
Figure SA-02.27 WPD's fluid filled cable leaks

Benefits to the customer of achieving this commitment will include:

- A cleaner environment
- Less disruption from cable repairs and clean-up operations
- Reduced carbon emissions
- Healthier, more stable and sustainable ecosystem
- Increased amenity value from ecological balance and cleaner environment

Sulphur Hexafluoride (SF_6)

Core Commitment 12	Significantly reduce our impact on climate change by delivering a 20% reduction in SF_6 losses and drive industry partners to develop technological alternatives to reduce overall volumes of SF_6 on the system.

3.131. Our stakeholders want us to focus heavily on reducing SF_6 losses which is why we committed to deliver a 10% reduction in our first draft Business Plan. As part of our first draft Business Plan consultation, our stakeholders were asked what level ambition we should adopt to reduce our SF_6 losses. In our consultation, we gave our customers five options and the results are shown in figure SA-02.28.
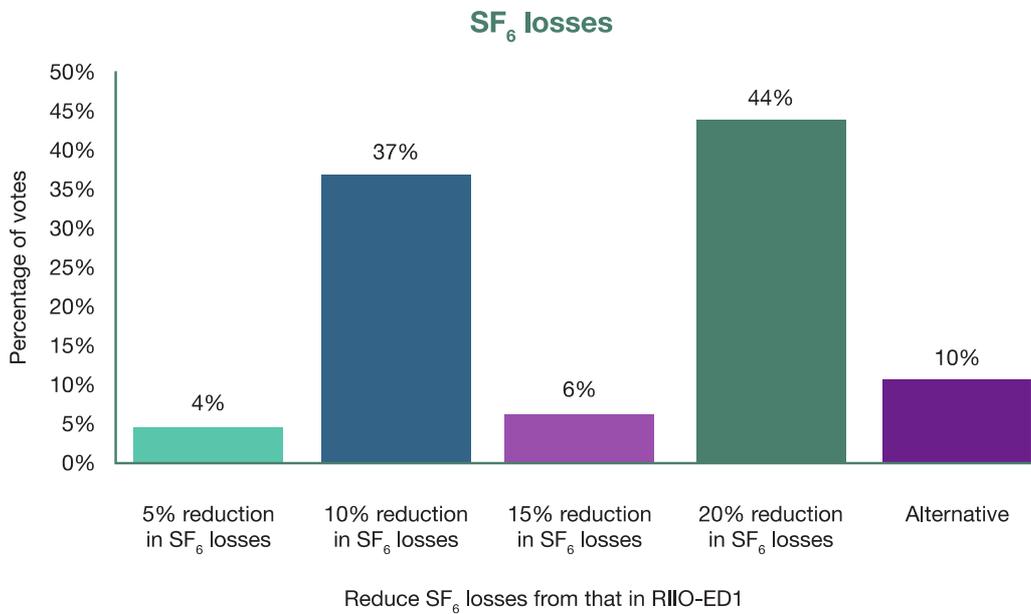
SF$_6$ losses

Figure SA-02.28 Stakeholder consultation feedback results – SF$_6$ losses reduction

3.132. Our stakeholders were clear that they want us to be very ambitious and require a 20% reduction. In response, to this we have doubled our commitment to reduce SF$_6$ losses by 20%.

3.133. Sulphur hexafluoride (SF$_6$) is a gas which is used throughout the electricity industry as an insulating medium in switchgear, SF$_6$ provides many tangible benefits but is a potent greenhouse gas with a high global warming potential (GWP). Our stakeholder feedback suggests that reducing SF$_6$ losses is a key priority for us throughout RIIO-ED2. The aim to 'Eliminate the use of SF$_6$ and carry out research to find alternatives' is ranked in the top five of our stakeholder environmental action areas.

3.134. During RIIO-ED2, we will reduce our SF$_6$ losses by a further 10% compared to the reported losses in RIIO-ED1. In order to achieve this, we will:

- Continue to work at an industry level with manufacturers to help to develop viable alternatives to SF$_6$
- Continue with non SF$_6$ switchgear installation (where suitable alternatives are identified at all voltage levels)

3.135. We have reduced the levels of SF$_6$ loss to the atmosphere during the current RIIO-ED1 period. Figure SA-02.29 shows our performance against the baseline target on a 'like for like' basis. It also shows our actual level including both manufacturers' returns and ad hoc top-ups. Both have been more accurately recorded since 2015/16:

SF$_6$ leak rates across RIIO-ED1
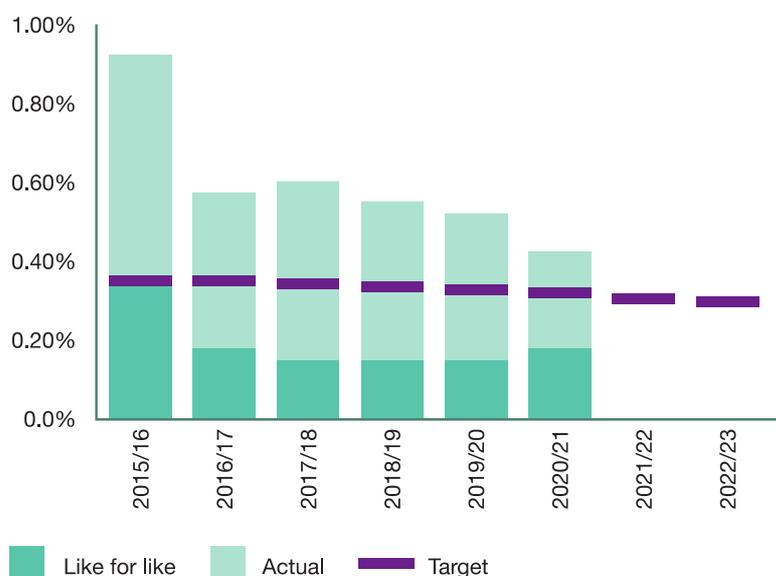
Figure SA-02.29 WPD's SF$_6$ leakage rate

3.136. Benefits to the customer of achieving this commitment will include:

- A cleaner environment
- Reduced carbon emissions
- Healthier, more stable and sustainable ecosystem
- Increased amenity value from ecological balance and cleaner environment

3.137. As well as dramatically reducing SF$_6$ leakage, we are committing to limit the total volume of SF$_6$ on our system as much as possible. We will therefore change our procurement approach for equipment to purchase SF$_6$-free alternatives where this is the best solution, as soon as technically viable alternatives are available. WPD is already trialling the use of SF$_6$-free 132kV Live Tank Circuit breakers (currently in construction) and we are working closely with a number of manufacturers to their SF$_6$ free technologies.

3.138. At present, only live tank circuit breakers are viable with SF$_6$-free technology; however, the cost is currently 30-50% greater than an SF$_6$ equivalent. For worst performing equipment, if non SF6 alternatives are not suitable or available, the best short term solution will be to replace the equipment with a new SF$_6$ unit, which whilst possibly increasing our total SF$_6$ bank, will cause a significant reduction in our leakage volumes. Any new unit would be under manufacturer's warranty against leakage and in the rare eventuality that leakage does occur, spares will be more readily available to repair it quickly.

3.139. For equipment with high leakage rates that is not readily replaceable, we are investigating the best way to carry our repairs or alternative ways of minimising SF$_6$ losses. For example, we are changing our policy to require units to be degassed until they are repaired.

Polychlorinated Biphenyls (PCBs)

3.140. Polychlorinated Biphenyls (PCBs) are a family of Persistent Organic Pollutants (POPs) used in industrial and commercial applications, including in electrical equipment such as capacitors and transformers, valued for their chemical stability, fire resistance and not easily generating a vapour. These are chemicals of global concern due to their potential for long-range transport, persistence in the environment, ability to bio-magnify and bio-accumulate in ecosystems, and in turn their significant negative effects on human health and the environment.

3.141. While PCBs were never specified for use in any WPD licence area, their use in other electrical applications led to a very small percentage of the equipment in use on WPD's network being unintentionally contaminated during manufacture. As this contamination was both unintended and not requested, we have very few records of the assets affected.

3.142. Before a full global ban on PCB production was implemented in 1987, any item manufactured in a facility where PCBs were in use was at risk of contamination, so must be assumed to contain PCBs and therefore be registered with the Environment Agency and Natural Resources Wales.

3.143. In 2000, a complete ban on the use of PCBs was imposed, but an exemption was made for electricity network transformers which could be left in service until the end of their useful life.

3.144. This exemption ended in July 2019 when new regulations required the removal of all potentially PCB contaminated equipment by 31 December 2025.

3.145. For these reasons and concerns raised by our stakeholders who want to see a reduction in leaks from WPD equipment, we have developed a comprehensive strategy to ensure that all PCB contaminated equipment will be removed from the WPD network by 2025.

WPD's strategy for a PCB free network by 2025

3.146. Surveys of PCB contamination conducted both in WPD and the wider electricity industry show that most of the contaminated oil has already been removed and disposed of by approved methods at sites authorised by the Environment Agency.

3.147. WPD is working in close partnership with all UK electricity network operators, the Environment Agency and in consultation with other devolved agencies to identify and remove remaining PCB contaminated equipment by 31 December 2025 in line with UK regulation.

3.148. The strategy for identification and removal includes:

- An accelerated programme of testing all ground mounted equipment prior to the end of 2025
- Innovation projects led by WPD to research and develop in situ PCB testing for energised overhead line equipment
- A UK-wide programme of statistical analysis pioneered by WPD and other UK network operators along with the Environment Agency to identify target and remove assets from the UK PCB register
- Targeted replacement of assets that are both potentially PCB contaminated and also do not comply with current high efficiency standards, thereby eradicating PCB risk and reducing network losses

Benefits to the customer of achieving this commitment will include:

- Healthier, cleaner and sustainable ecosystem
- Removal of potentially harmful pollutants from the environment
- Increased amenity value from ecological balance and cleaner environment

Waste management

3.149. Throughout RIIO-ED1, we have significantly reduced the amount of waste sent to landfill. Our stakeholders told us that we need to continue to strive for better performance in this area so we have carefully considered how we can best achieve this. Rather than simply targeting specific waste streams, we examined the issue of waste in a more holistic way by targeting our waste production at source, linking this to the wider topic of resource use to identify ways of reducing the waste overall. At the same time, we wanted to keep the focus on driving down land fill disposal with a view to delivering the best overall tangible benefit to our stakeholders and the wider environment.

3.150. We made excellent progress on the reduction of tonnage of waste and waste sent to landfill in RIIO-ED1 and applied a specific measurable metric which will allow the progress over RIIO-ED2 to be evaluated in the right context. This will align the increase in work programmes with the production of wastes. In order to accomplish this, we will use waste produced against the level of annual turnover to provide context to the figures provided.

3.151. During RIIO-ED2, we will improve our management of waste and resources further by:

- Working with our suppliers through the procurement tender process to align them with our aims of reducing waste and using resources more sustainably
- Implementing circular economy principles as detailed in the Environmental Action Plan (EAP)
- Eliminating unnecessary packaging materials and obtaining more recyclable packaging where the packaging is essential for the protection and integrity of the products
- Working with manufacturers directly to implement manufacturer 'take back' schemes to ensure packaging can have a longer lifespan
- Examining the alternative materials available for packaging to increase the durability of packaging materials.
- Seeking collaboration opportunities within industry and beyond.

Core Commitment 13	Significantly reduce the environmental impact of our operations by achieving zero waste to landfill by 2028 (excluding hazardous waste) and delivering an overall 30% reduction in tonnage waste produced.

3.152. Our stakeholders want us to reduce the amount of waste we send to landfill. Therefore, in the first draft Business Plan, we proposed to send only 10% of waste to landfill. As part of our first draft Business Plan consultation, our stakeholders were asked what level ambition we should achieve. In the consultation, we gave our customers five options and the results are shown in figure SA-02.30.

Waste to landfill reduction

Reduce the volume of waste we send to landfill (excluding hazardous waste)
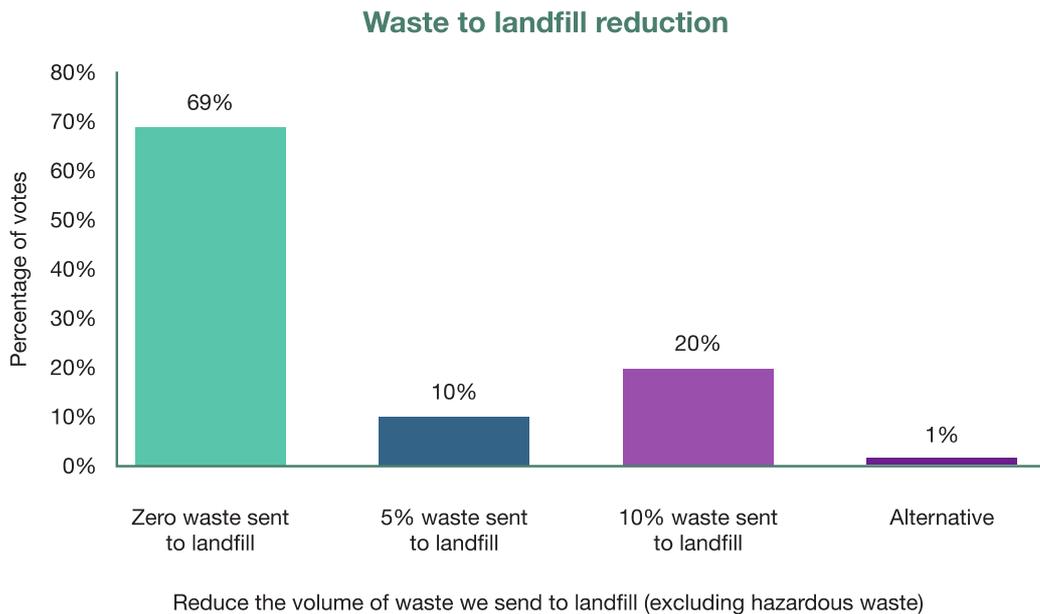
Figure SA-02.30 Stakeholder consultation feedback results – Waste to landfill

3.153. Our stakeholders wanted us to go even further and send zero waste to landfill. We have taken this on board and revised our commitment to achieve zero waste to landfill by 2028. We are also committed to a 30% reduction in waste production.

Single use plastics

3.154. Our stakeholders were also keen for us to reduce the amount of single use plastics entering our business. Reducing this waste stream supports not only our goal of reducing waste overall but also our ambition to use resources more efficiently and sustainably and offers an excellent area for collaboration with our suppliers to reduce the environmental burden from single use plastics.

3.155. While good progress has been made with smaller items like vending machine cups, further evaluation of our incoming goods is expected to yield more examples where items could be substituted for either multiple use items, items with better recycling potential or completely re-thought with our suppliers and manufacturers.

3.156. We will also investigate opportunities to turn waste materials into a resource for third parties. We will work closely with our waste contractors to identify outlets which will allow our waste materials to be returned to raw materials again (see figure SA-02.31). This process must ensure all applicable Duty of Care elements are fulfilled.

The waste hierarchy

Most Preferable

Level	Description
Avoid	Try not to create waste in the first place, but if it can't be avoided
Reduce	Reduce the amount as much as you can
Reuse	Find a way to reuse what you can
Recycle	What can't be reused should be segregated and sent for recycling
Recover / Treat	Waste that hasn't been segregated or can't be recycled will be taken to be treated and/or burnt to create Energy from Waste
Dispose	Disposal to Landfill. The least preferable and most costly action

Least Preferable

Figure SA-02.31 Waste hierarchy

3.157. By the end of RIIO-ED2, no WPD waste will be routinely sent to landfill for disposal.

3.158. At the same time, we will reduce the tonnage of waste per £1 million of annual turnover by 20%.

3.159. WPD currently produce 3.0 tonnes of waste per £1M annual turnover (2020/21 figures). By the end of RIIO-ED2, we will reduce this by 0.64 tonnes (20%) to 2.56 tonnes of waste per £1 million of annual turnover.

3.160. During RIIO-ED1, we have met the initial target of reducing our waste by 20% from 2015/16 to 2017-18 and are well on track to meet the 5% reduction per annum until the end of the RIIO-ED1 reporting period. There has been an 83% reduction in the tonnage of waste being sent to landfill (down from 2,556 tonnes in 14/15 to 430 tonnes in 2020/21), this is illustrated in figure SA-02.32.

Tonnage of waste to landfill
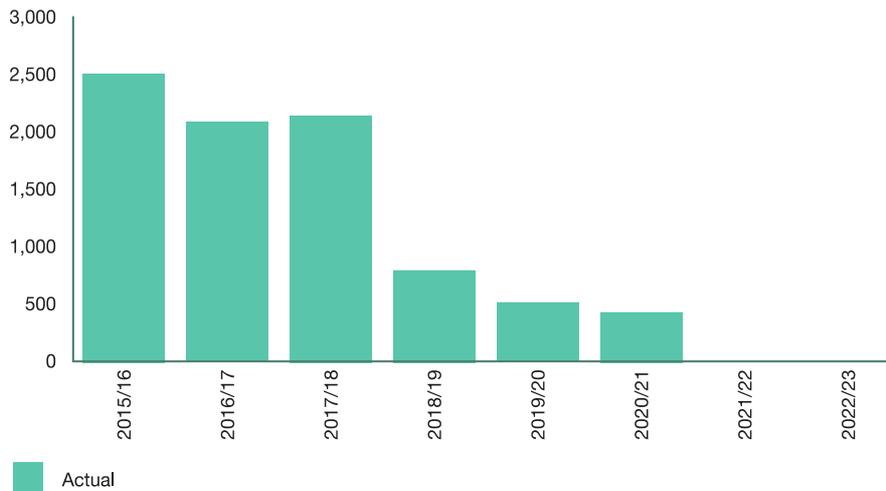
Figure SA-02.32 Tonnage of waste to landfill

3.161. The overall tonnage of waste produced by WPD in 2020/21 has reduced by 1,646 tonnes or 25% from our 2018/19 total of 6,531 to 4,885 in 2020/21 (see figure SA-02.33).

Annual tonnes of waste
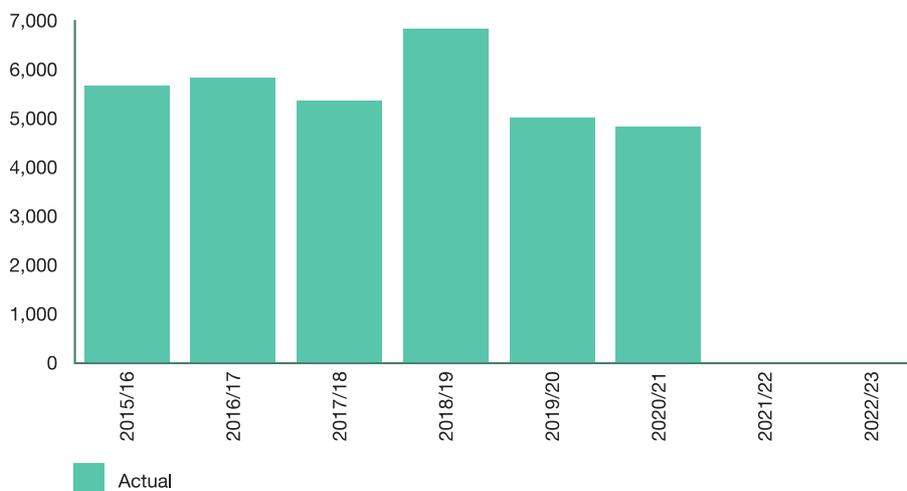
Figure SA-02.33 Total tonnes of annual waste

3.162. During RIIO-ED2, waste reduction - coupled with more sustainable resource use as detailed above - will be a major focal point for WPD.

Benefits to the customer of achieving this commitment will include:

- Reduced societal burden from waste
- Reduced use of raw materials
- Reduced carbon emissions
- Sustainability, reducing environmental impact from operations

Removing targeted overhead lines in National Parks and Areas of Outstanding Natural Beauty (AONBs)

Core Commitment 14	Improve visual amenity by removing at least 50km of overhead lines in Areas of Outstanding Natural Beauty and National Parks.

3.163. Our stakeholders want us to remove overhead lines from Areas of Outstanding Natural Beauty (AONBs). In the first draft Business Plan, we proposed to remove 40km by 2028. As part of our first draft Business Plan consultation, our stakeholders were asked what level of ambition we should achieve. In the consultation, we gave our customers five options and the results are shown in figure SA-02.34.

Overhead line removal in Areas of Outstanding Natural Beauty

Overhead line removal in km
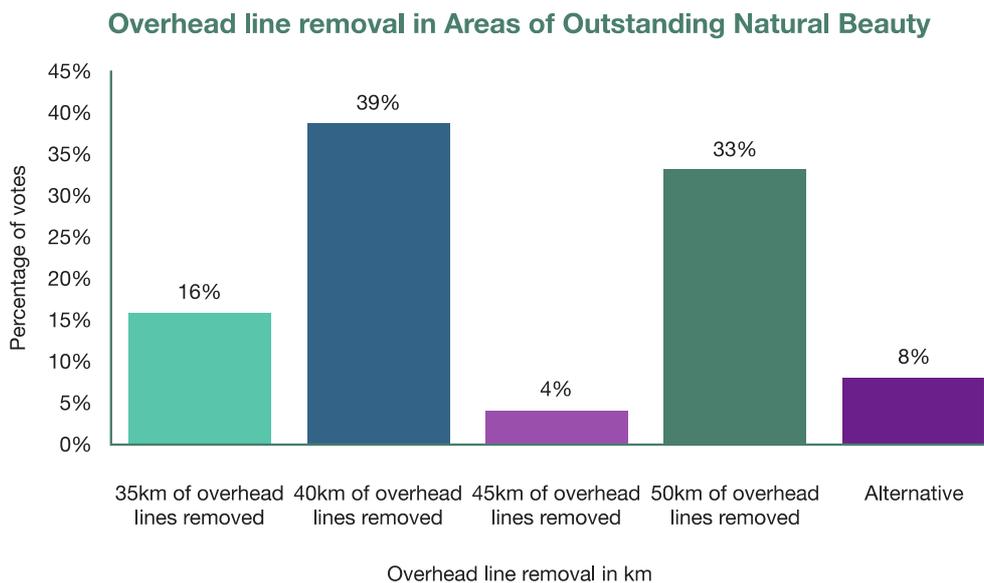
Figure SA-02.34 Stakeholder consultation feedback results – Removal of overhead lines in Areas of Outstanding Natural Beauty

3.164. Our duty to improve the visual amenity in our protected and valued landscapes is a duty we take very seriously, in line with the high importance placed on this by our stakeholders. We are mindful that improvements to our Areas of Outstanding Natural Beauty (AONBs) not only provide benefit for our local communities living in and near those areas, but also support the economic welfare of our communities by making the areas even more attractive to the visitor industry.

3.165. We coordinate the undergrounding of overhead lines with established steering groups consisting of representatives from AONBs and National Parks who help us identify and prioritise where and when work will take place. We provide information and appropriate assistance to relevant stakeholders to help them in the selection and prioritisation of appropriate schemes, understanding associated costings and complete feasibility assessments.

3.166. We have always been committed to working with the organisations responsible for National Parks and AONBs. For RIIO-ED2, we will aim to remove 10km every year and have therefore set ourselves a target of 50km in total.

3.167. We will again engage with our stakeholder organisations to identify and select the most appropriate overhead line sections for undergrounding and apportion timeframes to the scheme during RIIO-ED2.

3.168. During the RIIO-ED1 period so far, we have completed 33km (59%) of undergrounding overhead lines within National Parks and AONBs (see figure SA-02.35).
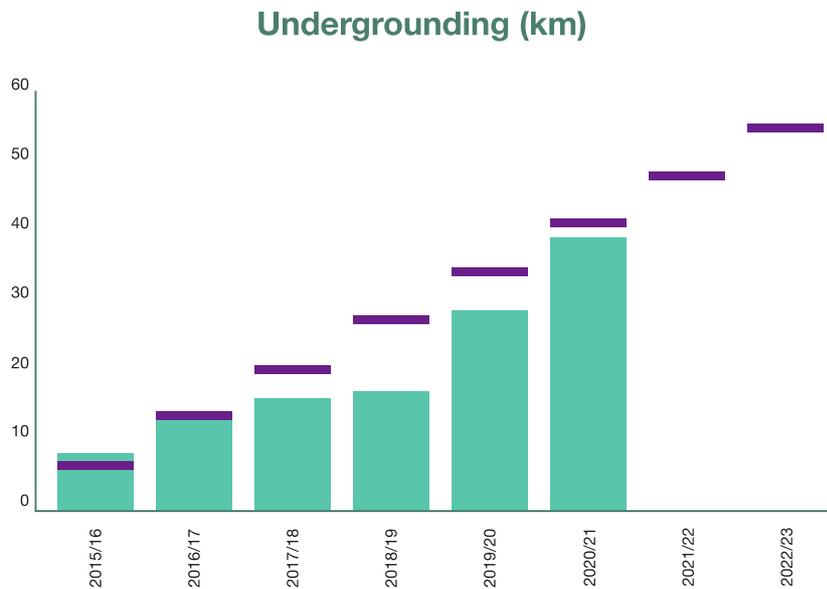
Undergrounding (km)

Figure SA-02.35 WPD's undergrounding in km for visual amenity

Benefits to the customer of achieving this commitment will include:

- Improved visual amenity
- Contribution to well-being from access to wide open landscapes
- Reduced impact on land from vehicles accessing poles for repairs

Biodiversity

Core Commitment 15	Achieve a 10% net gain in biodiversity (in line with nationally recognised assessment tools) for new major projects and for selected primary and grid substation sites.

3.169. The decline of our native species diversity in the UK is well documented and is of concern to us. We are conscious that our activities can impact on habitats and therefore species' ability to thrive. Our stakeholders told us they share our concern. Whilst biodiversity improvements have to be measured over longer timeframes to be certain of improving trends, small measures can nevertheless have a big impact overall.

3.170. During RIIO-ED2, we will ensure that our activities have minimal negative impact on UK protected flora and fauna species. We will commit to working with Wildlife Trusts in our region to identify priority habitats and species where improvements are needed and to ensure we can work in partnership with the Wildlife Trusts to support their already ongoing work to maximise the benefit to biodiversity.

3.171. We commit to the selection and implementation of a suitable Natural Capital Assessment tool to enable us to assess the impact of new projects with a view to enhancing biodiversity. A natural capital assessment considers the elements of a landscape that directly or indirectly produce value to people, including habitats, species, watercourses, land, air and sea. The assessment identifies the value, both financial and non-financial of these elements before and after any proposed new development.

3.172. These findings must then be taken into account during the development. By the end of RIIO-ED2, all new major infrastructure projects and new connections will have a biodiversity enhancement plan based upon a natural capital assessment.

3.173. In addition to addressing biodiversity in new projects, we will also turn our attention to the land already in our portfolio in the form of our substations. We will also use the natural capital assessment tool to review the ecological value at our network sites and to determine enhancement options for biodiversity at these sites, where possible, starting with our portfolio of grid and primary sites. These enhancements will target species and habitats identified by Wildlife Trusts in our regions as being at risk

Cleaner air and noise

3.174. Air pollution, especially pollution from particulates arising from the use of diesel engines, is well documented and we are committed to reducing our impact in this area, too. As discussed earlier, we are looking to adopt EV technology for 79% of our transport fleet by the end of 2028, resulting in 100% replacement of WPD's van fleet by the end of 2030, with the exception of larger specialist vehicles. Replacement of the van fleet will also have a positive impact on the reduction of noise with the elimination of running diesel engines while stationary.

3.175. Similarly, we are shifting our company car scheme to have a greater emphasis on EVs, with diesel engine vehicles no longer available from mid-2022. While the combustion engines are still in use, driver behaviour systems will be installed in fleet and company cars to monitor driving techniques and reduce emissions through driving style.

3.176. We are also investigating the options for battery generation for network faults. The aim is to replace the current diesel generators used to restore supplies with battery generators to reduce air pollution, as well as potential noise nuisance from the running of the unit.

Supply chain and resource use

3.177. We are approaching the issue of waste reduction in a more holistic manner, looking at the whole process. This means reviewing our activities and the materials and goods we use to complete them. We have to liaise with our suppliers and manufacturers to evaluate how goods are packaged and stored, what packaging is essential to guarantee the product integrity and what packaging materials are used.

3.178. During RIIO-ED2, we will reduce single use plastics and investigate ways of replacing single use packaging with more sustainable multi-use materials and ensure that any packaging we do receive is made from recyclable material if it cannot be used more than once. We will influence our suppliers by driving improvements through the procurement tender process and provide feedback on materials changed to make further improvements possible.

3.179. This will result in smarter, more efficient resource use both for WPD and our suppliers, introducing circular economy principles into business as usual. The implementation of holistic partnerships with our suppliers will further assist in our wider commitment detailed above to determine embodied carbon from the products used on our network.

3.180. By working in partnership with our providers and suppliers during RIIO-ED2, we have an opportunity to influence our supply chain into becoming more sustainable and resource efficient and ensuring as many as possible obtain an environmental supplier code.

Benefits to the customer of achieving these commitments will include:

- A cleaner environment
- Reduced carbon emissions
- Improvements to biodiversity and awareness of ecological value
- A healthier, more stable and sustainable ecosystem
- Increased resource efficiency from materials management
- Circular economy implementation

Benefits to the customer of achieving these commitments will include:

- A cleaner environment
- Reduced carbon emissions
- More efficient network

Summary table of environmental outputs / ambition

3.181. The table in figure SA-02.36 shows a summary of our targets for RIIO-ED2 against environmental areas.

Key Target Area	Output Detail	During RIIO-ED2	Target by the end of RIIO-ED2
Becoming a net zero carbon organisation	Reduce Business Carbon Footprint	Zero carbon building energy use (including substations Adopt electric fleet SF_6 replacement Ensure BREEAM standards are met Reduce business miles Encourage remote working	Achieve net zero emissions BCF to reduce by 2028
	Establish a company Science Based Target (SBT)	Set, follow and achieve Science Based Target	Deliver carbon reduction in line with our SBT target
	Measure embedded carbon	Develop, understand and measure the impact of embedded carbon within our network	All new major infrastructure projects to report embedded carbon as part of the project plan
	Reduce network losses	Procure low loss equipment Install larger cross-sectional cables No longer procure/install smaller size transformers on our overhead line network	Reduce carbon associated with losses in line with our net zero by 2028 ambition.

Being Environmental Responsibility	Protect the local and regional environment from damaging activities and the release of harmful substances	FFC Tag all fluid filled cables that leak on our network with PFT, Improve process efficiency in the data management of fluid filled cable leaks	Reduce network leaks by 30% Overlay of 70km km of the poorest performing Extra High Voltage Fluid Filled cables on our network.
		SF_6	20% reduction in SF6 losses from that in RIIO-ED1
		PCBs Use a combination of sampling and an industry designed statistical model to identify and remove all the oil filled assets that are potentially contaminated by more than 50ppm of PCBs	To be removed from our network by 2025.
		Biodiversity Protect UK native species of flora and fauna Adopt a natural capital assessment tool for all new major infrastructure projects and new connections.	Minimal negative impacts. All new major infrastructure projects to have a natural capital assessment
	Monitor our resource use and reduce waste	Reduce the amount of waste we produce Reduce waste to landfill Reduce single use plastics	20% reduction in tonnage of waste per £ total annual expenditure. Reduce waste to landfill to 10% (excluding hazard waste).

Figure SA-02.36 Summary of environmental ambition

Losses

Network losses

3.182. Distribution Losses represent a small proportion of total energy distributed, around 7%, but do add a burden to the generation required in the UK. Works to reduce losses do not have a specific benefit to WPD but Ofgem have given a valuation based on the societal benefit which is used to rank loss reduction initiatives. Distribution Losses are not something that can be reduced to zero as they are the power that energises the grid and allows it to provide electricity to customers. Distribution Losses are also a function of the demands placed on the network so with decarbonisation and increased electricity usage, the volume of losses could grow. Our key driver is to ensure that the proportion of total energy which is taken up by losses remains as small as economically sensible.
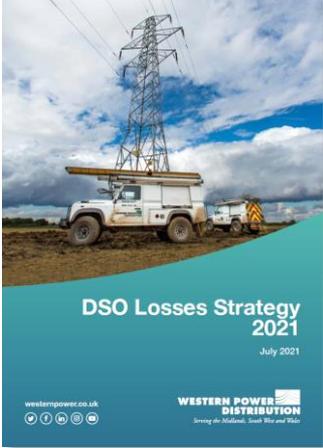
3.183. Our Losses Strategy is available on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42063 and in appendix A09.

3.184. The reduction of losses can be driven by increasing the capacity of assets and the retirement of older less efficient assets. During RIIO-ED1 we embarked on programmes to discontinue small capacity cables and smaller transformers. We also completed a proactive replacement schedule of large transformers built before 1958. All of these initiatives were underpinned by full CBA calculations using the Ofgem societal cost of Losses. We created a Losses Strategy and have updated in annually, using it as a report to show how we were addressing IFI funded research which suggested areas for loss reduction.

3.185. WPD created a bespoke Losses Strategy ready for RIIO-ED1. This starting position centred on the IFI funded report produced by SOHN Associates and Imperial College in their 'Management of Electricity Distribution Network Losses'. The recommendations in this report formed the basis of our losses work throughout the RIIO-ED1 period. During RIIO-ED1, WPD also completed the NIA Losses Investigation project, a ground breaking losses project which followed a field-work programme to monitor HV and LV networks, using one minute resolution logging to provide comprehensive information about actual power flows, allowing actual losses to be assessed for specific networks.

3.186. For LV feeders, our project utilised the Manx Electricity Network where a single operator provides the functions of generation, distribution and supply giving us a real-time holistic model. One key finding from the project is that, even with 100% smart meter penetration, the accurate measurement of losses remains a complex task.

3.187. During RIIO-ED1, we have continued to implement our Losses Strategy, replacing pre-1958 transformers, as well as outlawing the tapering of LV and 11kV circuits and the use of small size cables. This redefined cable sizing policy was incorporated in WPD policy documents and was rolled out as business as usual. WPD's work with transformers had previously focussed on older large, ground-mounted units with bigger losses footprints.

3.188. In 2019, WPD broadened the losses focus to single phase pole-mounted transformers. Single phase transformers are outside the eco design transformer legislation. The amorphous cored transformers purchased have reduced the iron losses to 16W compared to the current CRGO transformer iron losses of 65W. This takes us beyond the eco design standards.

3.189. The government's Clean Growth Strategy and the decarbonisation of transport will affect network losses as demands change. Battery Electric Vehicle (BEV) charging is likely to be the first major low carbon technology demand to be seen on the low voltage network. WPD is currently working with a number of local councils to create charging hubs of rapid DC chargers powered by using low loss amorphous cored padmount transformers.

3.190. The LV Templates project provided data on the voltages seen on the LV network and concluded that there is scope to reduce the network voltage and remain within the statutory voltage parameters. Reducing the voltage will reduce the overall demand and will contribute to loss reduction. WPD has completed a programme of voltage reduction in the South Wales area, and results have shown that a 0.88% reduction in primary voltage resulted in an average demand drop of 1.16%.

3.191. As a result of this, losses increased in percentage terms - this was because the current must be slightly higher to deliver the same power, which increases the variable loss, but the power required is lower, therefore reducing overall losses. Based on these results, during RIIO-ED1, WPD completed a programme of voltage reduction across 1,403 substation sites across all WPD licence areas.

3.192. Stakeholder engagement is hugely important to every part of our business. Since 2014, we have held regular losses-themed stakeholder engagement events, details of which can be found in the current version of WPD's Losses Strategy document, which is reviewed annually. Stakeholders continue to view a reduction in WPD's network losses as important, consistently ranking this highly in our stakeholder polls.

3.193. During RIIO-ED1, we have been part of the ENA Technical Losses Working Group which commissioned research by the Engineering Consultants WSP. Their report entitled 'Impact of Low Carbon Transition', shows that loads on the network during RIIO ED2 could increase as much as 40% as a result of the introduction of Low Carbon Technologies (LCTs) and the UK government's Clean Growth Strategy, The Energy White Paper and the Future Homes Standard.

3.194. The amount of energy that enters an electricity network is greater than the amount that is delivered to customers. The principal reason for this is that an electricity network uses energy in the process of delivering power. This is known as a technical loss.

3.195. Other reasons for electricity losses may be where a connection has been made to the distribution network without authority (known as theft in conveyance), where metering equipment has been deliberately by-passed (known as illegal abstraction) or where a connection has not been properly registered and no supplier is assigned. The energy used in these circumstances is not metered and does not feature in volumes registered by suppliers. As a result, it is shown as a loss on our network.

3.196. During RIIO-ED2 we will take our losses work further by again increasing capacity. On the low voltage network we will default to our largest cable size for all works and will undertake a programme of replacement for smaller pre-1958 transformers

Technical losses

3.197. Technical losses are made up of two elements: a fixed amount relating to the network itself and a variable amount that depends on the level of load on the network. Variable losses change as load alters on the network and are further impacted by the effect of network imbalance and power factor.

Fixed losses

3.198. The fixed element of losses is made up of the energy required when transformers are energised. Transformers require electrically produced magnetic fields to operate; a fixed amount of energy is used to create these magnetic fields while they are switched on.

Variable losses

3.199. The variable element of losses is created due to the heating effect of energy passing through conductors. Conductors are used throughout the electricity network in underground cables, overhead lines and in the wires and windings found in all transformers.

3.200. These conductors have a small resistance. When current is passed through them, the resistance causes the electrical energy to be converted to heat which is lost to the surrounding environment. The amount of power lost is proportional to the mathematical square of the current, which means that significantly more losses are produced at higher loads (when an item of equipment is running close to or at full capacity) compared to the losses at lower loads. The relationship between losses and current can be illustrated using a simple example: a current of 10 Amperes will produce 100 times the losses of a current of 1 Ampere; a current of 20 Amperes will produce 400 times the losses of a current of 1 Ampere.

3.201. Variable losses can be reduced by reducing the current flowing through a conductor or changing the resistance of the conductor.

3.202. The decarbonisation and electrification of energy will make it difficult to reduce current. The anticipated growth in the use of electric vehicles and heat pumps will cause demands on the network to grow. This will pose a challenge for reducing variable losses as the networks will be run with higher loads, generating more losses.

3.203. Losses reduction can be achieved by changing the resistance of a conductor, either by increasing the size of the conductor or changing the conductor material. The resistance of a conductor reduces as its cross sectional area increases so the effect of losses can be reduced by using larger conductor sizes. Different materials used for conductors have different resistivity which means that the use of lower resistance materials can also reduce losses.

Imbalance

3.204. The network is a three-phase system, but the loads connected can be across any number of the three phases. For example, three phase motors will use power from all three phases but a domestic property will be connected to just one phase. In some situations, network usage has evolved in a way that has led to power on different phases being at different levels. This is known as imbalance.

3.205. A network which is not balanced across all three phases will have higher currents than expected in at least one phase. Due to the squared relationship between variable losses and current, these higher currents can lead to higher than necessary losses.

3.206. In order to rebalance the network, there are physical actions that can be taken. For example, a rural high voltage overhead network could be rebalanced by moving two phase connections for small pole-mounted transformers to more lightly loaded phases. On the overhead LV network, service connections can be moved to a different phase of the overhead main. While this is possible on underground networks, it is more difficult and costly because it requires existing

service joints to be excavated and new joints made to move customer supplies to different phases.

Power factor

3.207. Power factor will also increase losses by increasing current on the network.

3.208. Power factor is a measurement of how well current and voltage are aligned in an alternating current system. Optimal power output is achieved when they are aligned (also known as being in-phase or having a power factor of unity). Capacitance and inductance caused by the devices connected to the network can cause the current and voltage to be out of phase. When this occurs, more power is required to create the same usable power as when the phases are aligned.

3.209. Where the power factor is less than unity, the current must be increased to deliver the required amount of power. When the current increases, so do the losses. Power factor issues have historically been a concern for installations used by industrial and commercial customers where motor loads or power electronic loads were installed. This issue is likely to become more common on our domestic networks, too, as a result of developments in domestic power electronics, invertors used to convert direct current from photovoltaic cells to alternating current, and the greater use of heat pumps.

Which parts of the network produce the most losses?

3.210. Electricity is distributed at different voltages, to enable more power to be transported as the voltage increases. The construction of the equipment at different voltages varies and means that different voltage levels have different losses characteristics. Differing network lengths at different voltages result in a different amount of losses on different parts of the network.

3.211. The local network supplying electricity to properties (at 230/415V) accounts for 30% of total network losses while the network and transformers which support 11kV account for 20%. The 33kV network accounts for another 44% and the 66kV and 132kV networks make up the remaining 6% of the total.

Stakeholder engagement

3.212. Stakeholder engagement has been central to the development of our Losses Strategy.

3.213. Stakeholders with a knowledge of, and interest in, losses were invited to four dedicated losses stakeholder events. We targeted people from manufacturers, other network operators, electricity suppliers, customer groups, academics, consultants and regulatory bodies. Dedicated losses discussions also took place at other stakeholder engagement sessions each year.

3.214. Stakeholders agreed with the idea of reviewing and re-issuing the Losses Strategy every year, but also suggested specific dissemination events every second year or whenever a significant development took place. This is because many of our proposed losses interventions are longer term asset changes, which do not need annual update or review.

3.215. These events have taken place since the submission of the RIIO-ED1 Business Plan:

3.216. November 2014 - WPD held a stakeholder event at the IET in Birmingham, for more than 30 representatives who learned more about the work to develop the WPD losses strategy.

3.217. November 2015 - WPD held a second stakeholder event to give an update on the progress of its losses work and the changes that had been incorporated into the updated losses strategy.

3.218. November 2017- WPD held a third losses stakeholder event to update on its work plan, learnings and proposed revisions to the losses strategy. Our proposals for Superfast Electricity, our project proposing three phase service cables to accommodate LCTs and reduce losses, were discussed in detail at this event. Stakeholders were supportive of our plans to upgrade new services and support a 'touch once for 2050' approach.

3.219. December 2019 - WPD held a fourth losses stakeholder event where we discussed our Losses Investigation project and welcomed SSEN to discuss LEAN transformer management.

Industry-wide engagement

3.220. As losses are an issue across the whole electricity system, WPD is proactively engaging with other companies on coordinated losses projects.

3.221. Along with all the other DNOs and ESBI, WPD regularly attends meetings of the ENA Technical Losses Task Group. Much of the work carried out by WPD at an industry level is derived from the WPD Innovation Strategy.

3.222. One of the innovative flexibility service options is the introduction of demand side response (DSR). This requires customers to respond at periods of high demand by reducing their electricity usage or generating energy for the grid. During our FALCON innovation project, we found that some customers were not able to provide us with DSR due to contracts in place with National Grid. We are working with National Grid to change their standard terms and conditions to allow customers to operate in both transmission and distribution markets.

3.223. Centrica's Local Energy Market (LEM) enables National Grid ESO and WPD to procure flexibility from the same platform simultaneously. WPD has set up the DSR Forum, where DNOs, Ofgem and National Grid are represented, to develop the Cornwall LEM into a generic industry solution.

Improved understanding of losses

3.224. The amount of losses on the network is difficult to quantify because we need to know the amount of energy entering the network and being used by consumers at a specific point in time. Because the use of the network is not fixed, the current flowing through it varies every minute. Any mismatch in the timing of readings introduces an error into the loss calculations.

3.225. We have been working with industry colleagues to address this challenge and improve our understanding of losses.

3.226. The ENA Technical Losses Task Group provides a forum for sharing best practice and working collaboratively across the industry. During RIIO-ED1, the task group commissioned WSP Group, a global engineering consultancy, to study the impact of LCTs on network losses.

3.227. Losses have been evaluated using simulations of the urban and rural network models developed for the DS2030 workstream of the ENA Smart Grids Forum. Both the urban and rural models are considered representative of actual networks which means the results are based on real data for existing GB distribution networks. Connections of LCTs such as heat pumps, electric vehicles, LV PV generation and larger generators connected at HV and 33kV have been simulated based on the DS2030 Central uptake levels for 2030; these have been shown to correlate well with National Grid's Community Renewable Future Energy Scenario. Regional variations in LCT

uptakes between the urban and rural networks were reflected by taking into account the numbers of customers, property types and socioeconomic conditions.

Key findings

3.228. The uptake of low carbon technologies will significantly impact losses.

- Future connections of LCTs will increase losses. Localised generation may reduce losses by supplying local demand and reducing the amount of energy flowing though the network. However, where there is greater generation output compared to local demand, resulting in a significant net export, this can add to losses by increasing energy flows across networks, albeit in an opposite direction.

3.229. How networks accommodate low carbon technologies will impact losses.

- The way in which the network is used and reinforced is known to affect losses. Traditional reinforcement, which increases the size of assets to accommodate load growth, has little impact on losses. However, smart solutions which increase the use of existing network assets, lead to greater losses, as a result of higher loads being carried through smaller conductors.

3.230. Losses vary based on regional topology.

- Losses have been shown to vary significantly across the different voltage levels and as a result of network topology, LCT uptake, and the amount of connected distributed generation. This means that there is no simple economic and efficient approach to reducing losses and that different solutions must be applied to different circumstances.

Losses investigation project

3.231. WPD's Losses Investigation NIA project considered the possibility of providing an accurate and consistent measurement of losses. The project looked at measuring losses on representative networks in the Isle of Man in collaboration with Manx Utility Authority (this is because regulatory rules prevent WPD from accessing individual customer information on its own network).

3.232. As part of the project, one minute resolution logging equipment was installed at distribution substations, to monitor the entry/exit of power onto LV feeders and to perform one minute data logging at all connection points along the sample LV feeders.

3.233. The project provided evidence to support WPD's policy of installing larger capacity LV mains. It indicated that losses reductions of approximately 17% can be achieved by installing larger cable at a cost increase of just 1%.

3.234. The project also showed that measurement errors (such as timing differences of monitoring equipment) can easily skew results and that these errors can be more significant than the volume of losses being measured. Losses are therefore very difficult to measure accurately. Even with more granular data, monitoring errors can easily be introduced into calculations.

3.235. The project demonstrated that there is a low level of losses in relation to energy supplied. Working with other DNOs, the ENA Technical Losses Group has also completed research on developing measures for this low level of losses. It draws upon international best practice and suggests better results may be possible by using a long settlement duration, as this may help to minimise measurement errors.

3.236. The ENA Technical Losses Group is planning to continue to work in this area and consider the potential to use scenarios, models and templates to extrapolate losses from a smaller number of measurement points or across a wider settlement period. WPD will be supporting, and contributing to, this investigative work.

Addressing losses in transformers

3.237. There are actions that can be taken to reduce the losses in transformers. For variable losses, these include reducing the resistance of conductors by increasing the cross sectional area or using materials with a lower resistance. To reduce the fixed losses, the efficiency of the magnetism must be improved by using materials with better magnetic properties.

3.238. During the RIIO-ED1 period, the EU eco design regulations led to a step change in distribution transformer design and reduced levels of both iron (fixed) and copper (variable) losses. This allowed us to create a positive CBA for the replacement of older pre-1958 ground mounted transformers that were manufactured to higher loss technical standards.

3.239. In the RIIO-ED2 period, we will extend this proactive replacement programme to include our pole-mounted, pre-1958 transformers. There will be a slight overlap of activity between the proposed losses actions, asset replacement of poor condition transformers and replacement of specific cohorts for the removal of PCB contaminated transformers.

3.240. The development of amorphous cored transformers by manufacturers has given us a viable alternative to the Cold Rolled Grain Oriented options used in the past. Amorphous cores have the advantage of lower fixed losses as they have better magnetic properties than conventional transformers. Following trials during RIIO-ED1, we will make these transformers standard on our overhead networks at sizes of 50kVA single phase and 100kVA three phase.

3.241. During RIIO-ED1, we discontinued the use of 15kVA single phase and 25kVA three phase transformers, using larger sized assets as the minimum size available. This provides both a losses and capacity benefit. In RIIO-ED2, we will extend this approach and discontinue using 25kVA single phase and 50kVA three phase units. This will mean that the smallest units used are 50kVA single phase and 100kVA three phase (these will be of a lower loss amorphous core design).

3.242. By uprating the minimum sizes and using amorphous cores for the smallest remaining sizes in our range, we will install around 160 units each year with a higher rating and lower losses. The incremental cost is £104,000 a year.

Addressing losses in cables

3.243. To reduce the variable losses in a cable, the cross sectional area of the conductors must be increased. When a cable is laid and the ground is reinstated, it is not economical to re-excavate to increase cable sizes. The opportunity to reduce losses efficiently only exists at the time that the cable is initially installed.

3.244. We have evaluated which networks would be best suited to the uprating of cable size. The greatest benefit is found on LV networks where levels of use are higher. This means that we are able to deliver a positive CBA on the discontinuation of 185mm2 cable at low voltage. At 11kV and above, where networks are designed to pick up load from interconnected circuits and therefore carry lower normal loads, the benefits do not drive a positive CBA.

3.245. The resistance of a 300mm^2 low voltage cable is around half that of a 185mm2 cable. The additional cost of the cable is less than £3 per metre which is marginal when compared to excavation costs of around £100 per metre.

3.246. The use of larger sized cables also increases capacity, which may be vital to cope with increased load from initiatives to decarbonise heat and transport. By installing 300mm² LV mains cable as standard, we will be able to manage demand increases without additional reinforcement.

3.247. WPD installs around 500km of 185mm2 cable each year. The incremental cost of upgrading this cable to 300mm^2 is £1.5 million a year.

Network design

3.248. Losses are taken into account during network design. WPD uses planning tools to enable staff to consider the losses impact of change to the network.

3.249. The discontinuation of smaller sized transformers and cables means that new low voltage and 11kV networks are lower loss and require limited network design analysis.

3.250. At higher voltage levels, planners complete bespoke losses studies to ensure that WPD design standards requirements are met. These assessments are carried out either from first principles or using template information for generation connections.

Asset replacement losses

3.251. The majority of WPD's network is already established. There is no cost benefit in replacing it simply to reduce losses. However, when replacing older assets, we have an opportunity to consider losses and to take this into account when deciding which assets to install. The discontinuation of smaller size assets will ensure our new networks have lower losses than before.

Customer value of losses

3.252. To determine the losses actions for RIIO-ED2, we have carried out cost benefit calculations for different applications and changes.

3.253. Our CBAs have been calculated using the Ofgem provided value of losses of £48.42/MWh used in the RIIO-ED1 CBA tool. The Ofgem value of losses is the average of wholesale prices over 2011/12, expressed in 2012/13 prices. It provides a fixed base for losses CBA calculations and indicates the societal benefits in the reduction of losses. These societal benefits are compared to the additional costs that will be incurred (and funded by customers).

3.254. Only some actions to reduce losses deliver favourable CBAs when considered in isolation. Incremental losses actions taken in conjunction with other work on the network are more likely to show a benefit. For example, while it is not beneficial to actively replace existing underground cables to reduce losses, it can be beneficial to oversize them when they are replaced as a part of other works. We have targeted these uprating actions in areas where there is a positive CBA.

Balancing losses with flexibility

3.255. Traditionally, WPD's Losses Strategy has focused on asset-based solutions and static design work. As we develop more DSO services, such as flexibility and dynamic system operation, the losses impact of these approaches must be considered.

3.256. WPD uses flexibility procured through the Flexible Power brand to defer or avoid conventional asset reinforcement. Where a flexible response is more economical than traditional reinforcement work, we will opt for flexibility. Flexibility alternatives are considered for all load related reinforcement projects on the EHV and 132kV networks.

3.257. Our asset strategies for losses reduction have concentrated on uprating assets or discontinuing smaller sizes of cables and transformers. The focus of this has been on the LV and 11kV networks where the uniform uprating or up-sizing remains efficient. At the EHV and 132kV voltage levels, a specific losses assessments must be completed for proposed network alterations.

3.258. Flexibility will often lead to existing assets being operated closer to their rated capacities at times of peak load. This will increase losses as current flows will be reaching network capacity. However, flexibility may be able support demand closer to the point of use, without needing more energy to be supplied through the network or from higher voltage levels.

Smart meters losses

3.259. The rollout of SMETS 2 smart meters has the potential to change the nature of network monitoring. DNOs will be able to access data detailing the consumption across their respective networks and LV feeders. This smart meter data will be readily available to provide data for the relevant circuits and will be updated far more often, delivering vastly improved data on network loadings. However, customer specific data will not be available due to data privacy restrictions. It is important to note that statutory limits for domestic energy metering are [±] 1.5% accuracy, which could have a significant impact on any losses measurements.

3.260. WPD has high volumes of SMETS2 smart meters connected to its network– more than any other DNO. We expect customers will be incentivised to use less energy at peak times, by the introduction of time-of-use tariffs, which would flatten the network load profile and consequently reduce losses. Smart meter data would enable areas of high loss to be identified, allowing targeted action to be taken.

Establishing benchmarks and rules for losses assessment

3.261. WPD is working with other DNOs to develop a set of baseline rules to assess the valuation of losses in a consistent way. The ENA's Open Networks project includes a workstream covering Flexibility Services which aims to deliver a common evaluation methodology and tool for DNOs to compare flexible with non-flexible options to meet network needs. This evaluation will consider losses as well as the carbon impact, asset health, optionality and deferral value brought about by flexibility.

3.262. The work to produce a common evaluation tool is expected to be completed by the end of 2020.

Summary of the losses approach and actions being delivered in RIIO-ED1

3.263. WPD's RIIO-ED1 loss-reduction programme has been focussed on asset replacement. WPD has:

- Met or exceeded the eco design 2015 directive for all new transformers purchased;
- Oversized the 11kV ground mounted transformers which are sufficiently highly loaded enough for an economically justified replacement;
- Replaced the entire complement of pre-1958 ground-mounted distribution transformers;

- Installed a minimum size of 25kVA for single-phase pole-mounted transformers and 50kVA for three-phase pole-mounted units;
- Discontinued 4 and 16mm^2 copper LV service cables;
- Discontinued 95mm^2 LV Wavecon mains cables and 95mm^2 Aluminium triplex 11kV cables; and
- Standardised on 185/300/400/630 and 800mm^2 copper single core cables for the 33kV network.

3.264. WPD continues to work with suppliers to investigate transactional theft, to perform regular random audit checks to monitor supplies that appear to be unmetered and to investigate theft in conveyance by comparing the metering records to Ordnance Survey records and investigating properties without meters.

Loss reduction plans for RIIO-ED2

3.265. Our RIIO-ED2 plans continue the asset replacement theme. In addition to RIIO-ED1 activities, we intend to:

- Meet or exceed the second stage eco design 2015 directive with all new transformers purchased;
- Replace all pre-1958 pole-mounted distribution transformers;
- Install a minimum size of 50kVA for single-phase pole-mounted transformers and 100kVA for three-phase units;
- Adopt lower loss amorphous core designs for the smallest sized pole- mounted transformers to be used in RIIO-ED2;
- Discontinue 185mm^2 LV Wavecon mains cables.

Innovation

What our stakeholders said about innovation

3.266. What our customers considered to be their top priorities for innovation is described in figures SA-02.37.

	Stakeholder Top Priorities	Core Commitment which Addresses this Priority
1	Stakeholders believe that WPD is well-placed to lead the way with innovation, helping to facilitate change across the industry	Core Commitments 16
2	They were clear that WPD must act on stakeholder feedback and lobby for change in order to avoid the issues that have occurred in previous national projects e.g. the smart meter roll out.	Core Commitments 16
3	While being an industry leader, WPD should strive to collaborate with both the wider energy industry and other industries	Core Commitments 16
4	Stakeholders want to see us support companies and individuals to develop innovative projects, and to work with major energy users to develop intelligent solutions to reduce current demand.	Core Commitments 16
5	Stakeholders have suggested that innovation research and case studies are a great vehicle to communicate opportunities for collaboration with partners	Core Commitments 16
6	WPD should prioritise publishing research and projects (both successes and failures) to foster a dialogue with potential partners	Core Commitments 16

Figure SA-02.37 Stakeholder top priorities for innovation

Using innovation to benefit customers

Core Commitment 16	Keep bills for customers low by delivering an additional stretch efficiency saving of £95 million through RIIO-ED2 (on top of £753 million of efficiencies already included in the plan) by utilising innovation to improve our processes and show a positive carbon impact.

3.267. This commitment was not included in our first draft Business Plan but was added as a new core commitment, following consultation with our stakeholders who felt we should include a core commitment on efficiency. In our second draft Business Plan, we proposed a new core commitment to deliver service improvement, driven by business efficiencies, to ensure customers saved money on their bills. In the consultation, customers were asked if they were happy with this commitment. The results are shown in figure SA-02.38.

Making savings through innovation
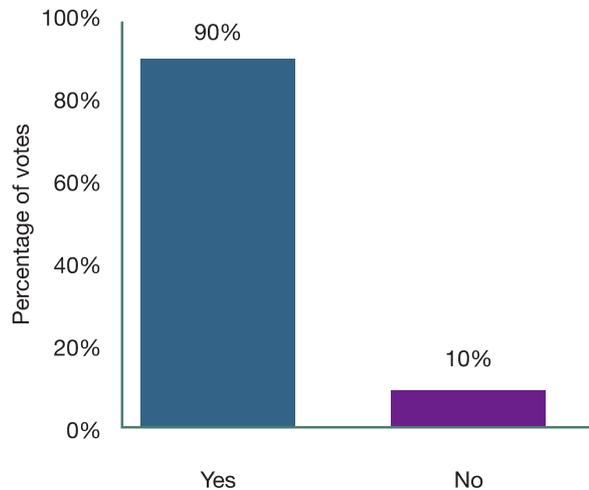
For each innovation project we will undertake a cost benefit assessment and implement into business practice to improve efficiency and effectiveness of assets, operations and customer service

Figure SA-02.38 Stakeholder consultation feedback results – Making savings through innovation

3.268. Our stakeholders felt that a commitment on efficiency was important but that we needed to show what savings we are going to make as a result of efficiency throughout RIIO-ED2. We have since reworded the commitment to specify a saving of £95 million due to efficiency savings in RIIO-ED2.

3.269. WPD has been very active in carrying out innovation work for more than 10 years. This has led to the development of a number of new processes and ways of managing the network that are now incorporated within our business as usual activities. In many cases, innovation projects have contributed to the evolution of these new processes.

3.270. We want to ensure that the innovation work that we carry out is seeking to provide a benefit or enhancement. For this reason, we carry out a cost benefit assessment to identify the potential benefits of each innovation project. This may be a bespoke benefit arising from the project or a benefit that contributes to a wider innovation challenge.

3.271. Our stakeholders want us to ensure that no one is left behind in the transition to low carbon technology. This was not a core commitment in our first draft Business Plan but, following consultation, we generated a new core commitment to provide an advisory service for customers.

Sharing network data

Core Commitment 17	Enhance access to data that is tailored to the individual needs of our customers, by making 60% of WPD's network data available via an interactive Application Programming Interface.

3.272. Our stakeholders were clear that they needed easy access to the data they required. In our first draft Business Plan, we included a commitment to make 60% of data available via an API. In our consultation, our stakeholders were asked if this level ambition was acceptable. The results are shown in figure SA-02.39.

Data sharing

Improve the volume of data available via an interactive programming interface relative to all data made available (e.g. via spreadsheets)
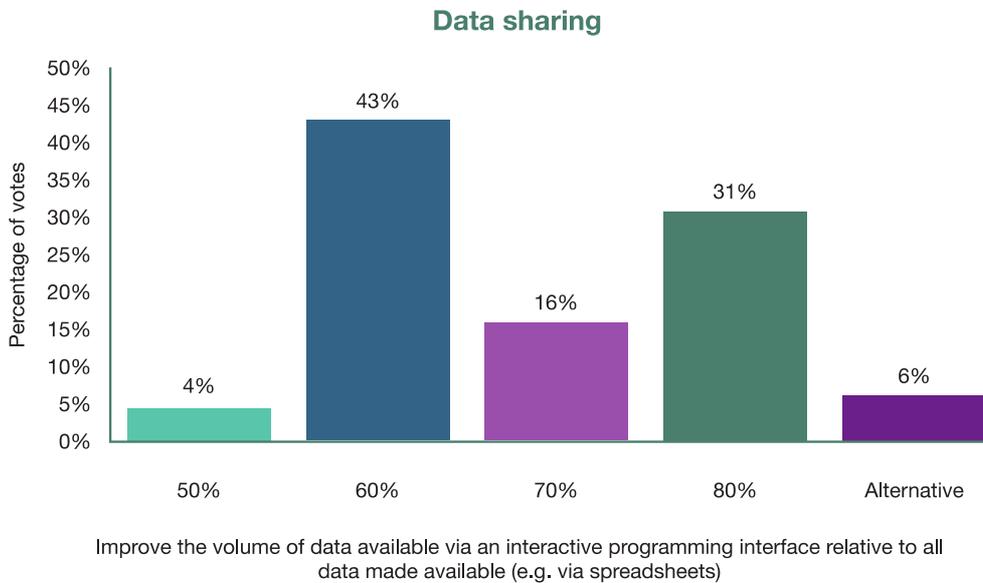
Figure SA-02.39 Stakeholder consultation feedback results – Data sharing

3.273. Our stakeholders fully supported this commitment although we have since reworded it to make it clearer, at their request.

3.274. As networks become smarter, and more data is collected and processed, there are greater opportunities for third parties to make use of the data for their own purposes or to develop new ways of managing the networks.

3.275. The Energy Data Task Force has promoted the concept of presumed open data. WPD has been developing ways of making more network data available to third parties and the Energy Data Hub on our website currently allows various data sets to be accessed.

3.276. We propose to continue to expand the range of data available as well as developing the systems for accessing this information. We are looking at ways of cataloguing and organising the data to enable users to define their own specific requirements and extract user specific datasets. We anticipate that this access will be made through Application Programming Interfaces.

Understanding data needs of stakeholders

3.277. WPD has a strong track record of engaging with stakeholders to ensure that the services we provide meet their needs.

3.278. As we expand the data we make available and the processes for accessing the data, we must ensure that we are meeting the needs of stakeholders. We therefore propose to introduce a satisfaction survey to support our engagement interaction and provide some quantitative analysis of the service we are providing. This will enable us to identify areas of opportunity and focus on specific improvements that will benefit the greatest number of users.

Innovation ideas portal

3.279. Because we recognise that we do not have all the answers, we work with third parties on innovation projects. We also recognise that we do not have all the best ideas which is why we capture innovation ideas by running calls for projects. These calls are run at different times of the year, where we ask individual or organisations to submit proposals for specific topics.

3.280. During RIIO-ED2, we will develop a new interactive ideas portal aimed at staff, third parties, communities and other stakeholders who can make suggestions for new projects. Where appropriate, we will make small grants to individuals or groups to help progress an idea through feasibility assessment and the creation of a high level project scope.

4. Meeting the needs of customers and network users

4.1. Our vision to be world class in power delivery drives our key goal of delivering consistently excellent customer service – first time, every time - which is the central thread running through the heart of our operation and is firmly embedded in our culture. Our continued excellent performance in the RIIO-ED1 customer satisfaction measures – with average satisfaction above 90% - demonstrates this commitment. This is also supported by the views of our stakeholders and independent accreditation, and by direct feedback from customers who have experience in accessing the many services we provide.

4.2. We understand the importance of being transparent and we welcome and encourage our customers and stakeholders to hold us to account and measure us against our peers and wider industry. It is equally important that WPD continues to improve, adapt and refine its customer service provision by using feedback from customers and measuring its performance against those customer expectations and our peers.

4.3. Over the last six years, we have seen a significant shift in customer expectations, driven in part by experiences in other sectors (for example, the impact of online shopping and delivery services leading to a desire from customers for a more instantaneous service that they can track at every stage). In our sector, we have seen this translate into an expectation for more timely updates and information, more proactive contact and a wider range of channels to suit our customers' preferences Our average customer satisfaction score – which has been number one in the industry since 2013 - has not only been maintained but has continued to increase every year.

4.4. During RIIO-ED2, we will continue to drive innovation and work even harder to maintain our exceptionally high current levels of service and improve even further. We expect customer expectations to continue to increase as we make the shift towards a net zero future - something stakeholders expect WPD to achieve way ahead of the UK and Welsh government's 2050 target and which will result in huge volumes of low carbon technologies connecting to WPD's network at a local level. This could see up to 1,600 applications a week from domestic connections for heat pumps and electric vehicles. In response, we will need to develop the knowledge, capacity and expertise of our customer service teams, as well as to create a range of self-service tools to enable the rapid turnaround of applications and enquiries.

4.5. The new services must deliver the same excellent experience for customers. That is why we need to measure customer satisfaction effectively, allowing us to identify opportunities for improvement and assuring our customers of our unwavering commitment to provide the highest levels of service.

4.6. As we adapt the network to become a smarter, system, it is essential that no customers are left behind, particularly those in vulnerable situations. We will develop new capabilities to deliver bespoke advice, support and service offerings to enable customers to access in smart energy services.

4.7. Our stakeholders need us to be their voice, representing their views at industry level, with the regulator and the government. To be most effective, we must be able to do this from a position of leadership and trust, delivering industry-leading customer service and demonstrating our customers can trust us to do the right thing.

4.8. Our RIIO-ED2 plan provides a package of 42 core commitments with associated performance targets giving a comprehensive view of our customer service performance and driving continual improvement.

4.9. During RIIO-ED1, we have continued to be one of the top performing DNOs for overall customer satisfaction (combining customer satisfaction results for supply interruptions, connections and general enquiries). We continue to deliver fast telephone response times, quick complaint resolution and effective mechanisms for communication with our customers.

4.10. During RIIO-ED1, WPD recorded the highest average customer satisfaction of all the DNOs in Ofgem's Broad Measure of Customer Satisfaction (BMCS). Using the amalgamated scores of the three separate component surveys, the average results across the RIIO-ED1 period for BMCS are shown in figure SA-02.40.

BMCS - average RIIO-ED1 weighted score by DNO group
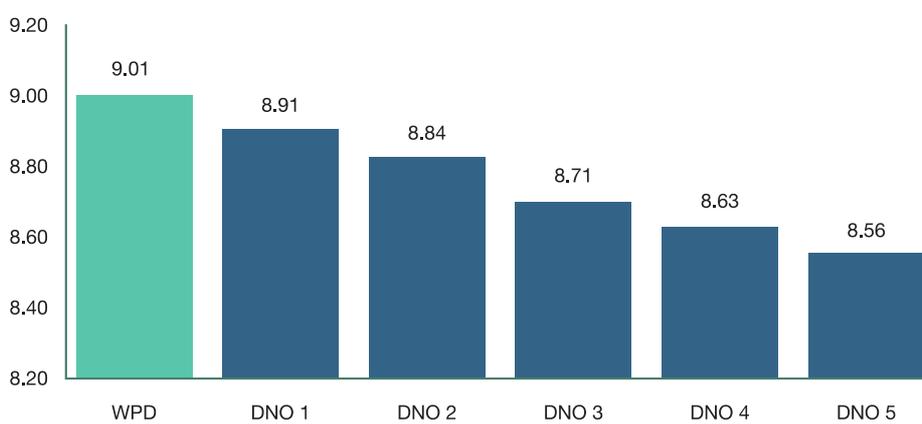
Figure SA-02.40 Broad Measure of Customer Satisfaction

4.11. We have delivered consistent, exceptional customer satisfaction performance as demonstrated by Ofgem's Broad Measure of Customer Satisfaction. In a separate index, the Institute of Customer Service (ICS) reports on the customer service performance of a range of companies across various sectors in the UK.

4.12. Therefore, while this is not a direct comparison with WPD's performance, it provides some relevant wider context to satisfaction levels in other industries. Indeed the ICS scores was a key considered factor in the process Ofgem followed to set the targets for customer satisfaction that have applied in RIIO-ED1. The latest ICS report (January 2021) states that their top rated member companies in the UK for overall customer satisfaction are First Direct (85.5% or 8.55/10), John Lewis (85.1% or 8.51/10) and Marks and Spencer (84.1% or 8.41/10). We believe WPD's performance will be in the same territory as those in the upper echelons of the ICS best performing member companies.

4.13. As well as the BMCS survey, WPD will introduce an in-house survey of customers who have recently used our services. This survey will ask how we performed when the customer contacted us, but it will also ask how we compare to other companies outside of the utility sector, to gauge opinion on how we are performing in terms of customer service, and what our customers think of us. We will use this feedback to learn and improve to ensure we remain a top performing, customer service-driven company.

4.14. To maintain this performance, we will not allow ourselves to become complacent or to stand still. We use the feedback from our customers and stakeholder engagement to identify our qualitative

performance and the areas in which we can continue to make further improvements. We have used a range of additional customer surveys over and above the standard DNO satisfaction surveys, to specifically target service provisions not covered by the broader measures. As an example of direct surveying of key customers by our local teams regarding data access and availability, customers told us that our data was available but spread out across different platforms and needed consolidating into one easy to find location. As a result of this customer feedback, WPD has developed a new Connected Data Portal.

4.15.   A second example of customer and stakeholder surveying comes from our quarterly Distributed Generation meetings where we recognise the importance of asking all parties within the group to discuss areas where they believe WPD could improve. Two participants asked whether it was possible for WPD to proactively email site managers responsible for green energy sites, rather than the site managers themselves having to log into WPD's portal to check for any changes to the outage. WPD is now actively engaged with a consultant to enable this function so that DG site managers will get to know in real time of any planned outage changes. This could render a significant saving to DG owners planning to carry out maintenance with a third party, if the outage was cancelled without warning. WPD will continue to proactively survey its customers and stakeholders at a local level within the communities we serve, regarding specific and more general aspects of our performance, seeking further opportunities to enhance our service offering and opportunities to improve.

4.16.   Our stakeholders support the use of independent accreditation as it provides both assessment and opportunities to identify further improvements. WPD has been accredited under the Customer Service Excellence (CSE) standard since 1992 (when it was known as the Charter Mark). Each year, an independent assessor carries out a rigorous audit including a two day visit and assesses our performance against set criteria.

4.17.   Each area is awarded one of four ratings: 'Compliance Plus' (UK-wide best practice); 'Compliance'; 'Partial Compliance'; or, 'Non-Compliance'. In 2020, we achieved 45 out of 57 'Compliance Plus' ratings (the top UK performer out of 600 companies), with no instances of non-compliance. The accreditation under the Customer Service Excellence standard is key to understanding how well WPD is performing against important criteria generally accepted as the litmus test for organisations which pride themselves on leading in the field of exemplary service to customers. The award is an independent audit and test of how well our customer service ethos of 'first time every time' is embedded in the heart of our organisation, and how it guides everything we do.

- The CSE standard measures achievement and performance against five key areas:
    – Customer Insight
        - Including understanding of customer groups, hard to reach & disadvantaged focus, engaging and involving customers, measuring customer satisfaction accurately, setting customer satisfaction targets, improving service through customer consultation and improving customer journeys.
        - **The 2020 assessor concluded: "WPD has an in-depth understanding of its customers that has enabled it to design and provide services that meet the needs of the full range of customer groups."**

    – The culture of the organisation
        - Including corporate commitment to service delivery, robust customer service policies developed through consultation, staff who promote a customer service culture, customer-focused recruitment and training, staff who understand and respond to customer needs, customer-focused performance management, frontline staff input into service development and valuing customer focussed staff.
        - **The 2020 assessor concluded: "The culture of WPD continues to be highly customer-focused with a strong emphasis on team working and the use of**

customer insight to improve service delivery. There is strong leadership and appropriate policies and procedures to support staff in delivering consistently high levels of service. Staff are empowered to contribute to the improvement of operations and procedures, staff feel that their contributions to service delivery are highly valued and are proud to be part of an organisation with such an outstanding reputation for customer service."

– Customer information and access
  ▪ Including the service information available, a choice of information channels, clear accurate information when updating customers, improving verbal, web & written information, continuous evaluation of access channels, beneficial partnerships and working with the wider community.
  ▪ **The 2020 assessor concluded: "Information is provided using a variety of appropriate channels, including the self-service interactive website, on the telephone, via texting and via social media channels including webchat, Facebook and Twitter. Partnership arrangements and wider community activities are outstanding. In addition, a number of partners are fully funded by WPD to provide affordable warmth schemes to identify and support hard-to-reach customers not already known to WPD."**

– Service delivery
  ▪ Including challenging standards, monitoring & meeting standards and publishing results, stakeholder consultation, customer service commitment, positive outcomes, benchmarking performance and improvement, using best practice, robust complaints resolution, staff empowerment, learning and improving service from complaints and stakeholder review of the complaints procedure.
  ▪ **The 2020 assessor concluded: "WPD has challenging standards and performance indicators, with sound monitoring procedures, that are used to raise standards and effect continuous improvement. Services continue to be delivered to a very high standard, with successful outcomes for the vast majority of customers."**

– Timelines and quality of service
  ▪ Including customer contact response standards, customer service quality standards, timelines and quality promises, identifying and dealing with customer needs, keeping customers updated, responding quickly and efficiently to customer enquiries, ensuring service standards are met and benchmarking performance.
  ▪ **The 2020 assessor concluded: "WPD tells customers about its promises on timelines and quality of service, most customer contact is by telephone and performance here is exceptional, the 'First Time, Every Time' commitment continues to reflect the high priority WPD places on delivering an excellent quality of service to all its customers."**

  ▪ The Customer Service Excellence 2020 Assessor observed:

"WPD is notable for having been continuously accredited to the CSE standard since its inception in 1992, which is an outstanding achievement, reflected in the impressive total of 45 Compliance Plus elements."

Customers in vulnerable situations

4.18.   Customer vulnerability presents itself in many different and complex ways and means that some people are more dependent on essential services for support. The reasons for vulnerability can be permanent, transient or progressive creating a wide spectrum of customer vulnerability that calls for a range of responses to provide the support needed. We take our responsibility to our customers very seriously, particularly those in vulnerable situations and use the widest possible definition of vulnerability to ensure we can fully support the range of people who rely on the service we provide.

4.19.   When talking about our approach to vulnerability, we often reference 'hard-to-reach' customers. At the broadest level, we define these as the 41% of eligible customers who are not yet registered to our PSR and who require bespoke outreach via trusted community partners. More specifically, hard-to-reach customers can be those who are less likely to self-identify as needing the Priority Services Register (PSR), those who might be disengaged from the energy sector, and those whose vulnerability might be hidden from traditional service providers such as their energy supplier.

4.20.   We currently support more than one million vulnerable customers each year through proactive power cut information and advice, fuel poverty guidance and by identifying hard to reach customers who are encouraged to join the PSR for the first time.

4.21.   Our stakeholders have encouraged us to build on the foundations of our existing programme and deliver greater support for customers in vulnerable situations during RIIO-ED2. They have continually identified this support as a high priority throughout our engagement with a particular focus on ensuring customers are not left behind in the energy transition.

4.22.   Our comprehensive customer vulnerability programme has been in place since 2013. We provide bespoke support across a range of vulnerable groups. Examples of vulnerable customers might include a young person with autism living independently for the first time, a lone parent with very young children or someone with a critical medical dependency on electricity. Customers may experience long-term, short-term or recurring vulnerability due to a range of causes, which is why our approach must be adaptive, flexible and inclusive.

4.23.   Our PSR is at the heart of our support for vulnerable customers, enabling us to identify those who are in need of extra help, including the traditionally 'hard to reach' – and to target services and support at those at greater risk during a power cut. The PSR is a starting point for wider outreach services which go beyond offering help during a power cut, to provide customers with access to more comprehensive support.

4.24.   Vulnerable customers who struggle to cope during a power cut often face additional challenges such as difficulties with the costs of household utility bills. These customers may also find it hard to access help. In RIIO-ED1, our stakeholders made it clear that - although WPD has a limited responsibility for household bills – we should use our interactions with customers to identify and provide help and support to those struggling with fuel poverty. As a result, we have significantly expanded the support given to those dealing with fuel poverty and, by working with trusted partners, have been able to deliver significant savings of £37 million for 92,000 customers during RIIO-ED1 to date.

4.25.   Vulnerable customers are also at risk of missing out on benefits associated with the shift to a smart energy system, which is necessary to achieve net zero. Smart energy offers new, innovative opportunities for customers to change and manage their energy use, in order to access financial benefits. However, there is a chance that vulnerable customers may be landed with some of the additional costs for developing a smart network, without being able to access

these benefits. The pace of change needed to meet net zero targets exacerbates the risk and places a responsibility on DNOs to ensure new services are tailored to all customers. WPD takes this responsibility very seriously.

4.26. WPD is committed to ensuring the energy transition is just and fair, and that no customer is left behind. This principle underpins the way we are using innovation to develop new services. We must therefore work extensively with stakeholders to either protect the interests of those who cannot or do not wish to participate in a smarter energy future and make it easier for these customers to access and share in the benefits. The importance of our commitments to the support of the vulnerable were brought into sharp focus by the unprecedented challenges placed on our customers and our staff by the Covid-19 global pandemic.

Our long-standing approach to customer vulnerability and our long term partnerships with stakeholders proved invaluable as we responded to Covid-19.

Every year, WPD reviews the accuracy of the details held on our PSR by contacting customers to update their details. Our proactive PSR cleansing, including tens of thousands of the hardest-to-reach customers added every year by our referral networks, coupled with our established relationships with local authorities across our region, meant we were able to utilise PSR data to identify those most in need of support.

Within days, we re-purposed our fuel poverty outreach schemes, coordinating over 60 partner agencies to deliver support to people impacted by the virus, from deliveries of food packages and prescriptions to befriending services for the most isolated in society.

The launch of our £1 million 'In This Together – Community Matters' support fund was aided by our biannual review which helped us to identify 871 eligible charities and community outreach services across our regions and invite them to apply. In the spirit of partnering with our local communities, we decided not to make just one or two large awards but to open up the process to smaller groups across our four licence areas. We then called upon members of our Customer Panel with expertise in vulnerability to administer awards independently on our behalf, to ensure they achieved the best possible outcomes locally.

This resulted in support for over 565,000 vulnerable customers when they needed it most.

4.27. Our customer vulnerability commitments in this Business Plan have been built with our stakeholders from the ground up, starting from a 'blank sheet of paper'. This approach, and the insights provided, have given us a range of focus areas that align with Ofgem's four principles:

| Principle 1:	Principle 2:	Principle 3:	Principle 4:
Effectively support consumers in vulnerable situations, particularly those most vulnerable to a loss of supply, through a sophisticated approach to the management, promotion and maintenance of a Priority Services Register (PSR).	Maximise opportunities to identify, and deliver support to, consumers in vulnerable situations through smart use of data.	Understand new forms of vulnerability, in particular by identifying blockers to participating in a smart flexible energy system.	Embed the approach to protecting the interests of consumers in vulnerable situations throughout a company's operations to maximise the opportunities to deliver support.

4.28. Our longstanding commitment to supporting customer vulnerability has already delivered substantial benefits to customers across our network. This has been driven by extensive engagement with stakeholders who have given us a clear direction and identified the priority areas they feel we should be working on to deliver continued improvements.

4.29. This Business Plan and our separate Customer Vulnerability Strategy builds on many of our industry-leading achievements in RIIO-ED1:

- 5.3 million PSR customers proactively contacted to update their records and receive advice
- 1 million PSR customers proactively contacted during power cuts
- 92,000 customers facing fuel poverty supported
- £37 million saved directly by those customers facing fuel poverty as a result of WPD's schemes
- 169,000 new customers added to WPD's PSR via a network of over 100 PSR referral partner agencies

Customer Vulnerability Strategy

4.30. WPD's Customer Vulnerability Strategy for RIIO-ED2 will ensure we deliver our most ambitious and extensive ever programme of support for customers in vulnerable situations. It will deliver the five core commitments set out within this section and a further 41 specific initiatives, co-created with our stakeholders, which meet and exceed the baseline expectations set out by Ofgem for consumer vulnerability.

4.31. Our Customer Vulnerability Strategy is available on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42060 and in appendix A10 of this document.

Building on strong foundations

4.32. Our established customer vulnerability strategy and programme has been key to delivering these successful outcomes for customers during RIIO-ED1. Our aim is always to deliver tangible actions, outputs and benefits for customers. Our core strategic approach has been updated and refined each year in partnership with WPD's stakeholders and is subjected to rigorous external assessment and scrutiny each year. This has led to significant strategic additions, including a greater emphasis on addressing fuel poverty and protecting the interests of vulnerable customers during the smart energy transition (see figure SA-02.41).

4.33. The consistency of our overarching strategic approach ensures that it is understood by everyone at WPD. As a result, it is becoming more deeply embedded in all our operations and means that all staff have an awareness of the work we can do to support the vulnerable. This extends from field teams working out on the network, to staff handling customer calls and innovation engineers delivering schemes for a low carbon future.

4.34. Most importantly, our programme and core strategy remains effective and fit for purpose. It drives us to deliver excellent outcomes for customers, identifying and responding quickly to changes in their expectations and requirements. This provided a strong platform to engage stakeholders on their priorities and the level of ambition they want to see WPD deliver in RIIO-ED2.

4.35. Our primary focus must always be to support vulnerable customers during power cuts, as reiterated by our stakeholders every year. WPD's Customer Vulnerability Strategy builds on the PSR at its foundation, using this as a vital tool to identify those in need of support. PSR data

helps us to understand the full spectrum of vulnerable situations facing customers and to target support to where it is needed most. It also ensures WPD's support is holistic, providing the range of bespoke services customers require. We therefore continue to ensure our PSR is accurate and contains all those in need of its services, including the traditionally 'hard-to-reach'.

4.36. By taking the widest possible view of vulnerability in our strategy, we are able to understand the vulnerable situations prevalent in our communities in increasing depth and detail. Collecting accurate and complete data provides us with a greater comprehension of the vast spectrum of vulnerable situations customers may be faced with, and allows us to deliver targeted and bespoke support where it is most needed. Likewise, taking a data-driven approach to understanding the root causes of vulnerability and combining with extensive engagement ensures our support is holistic and expert-led, providing a range of bespoke services which our customers require.

4.37. Partnerships are extremely important to the success of our strategy, helping us co-develop and co-deliver projects and achieve greater customer benefits while maintaining value for money. Our experience shows that customer vulnerability support is most effective when it is trusted, joined up and holistic. That is why we use a hub model of key partner agencies to provide a one stop shop service. This makes it possible to offer multiple interventions via a single touchpoint and means the customer can avoid the need to deal with multiple contacts.
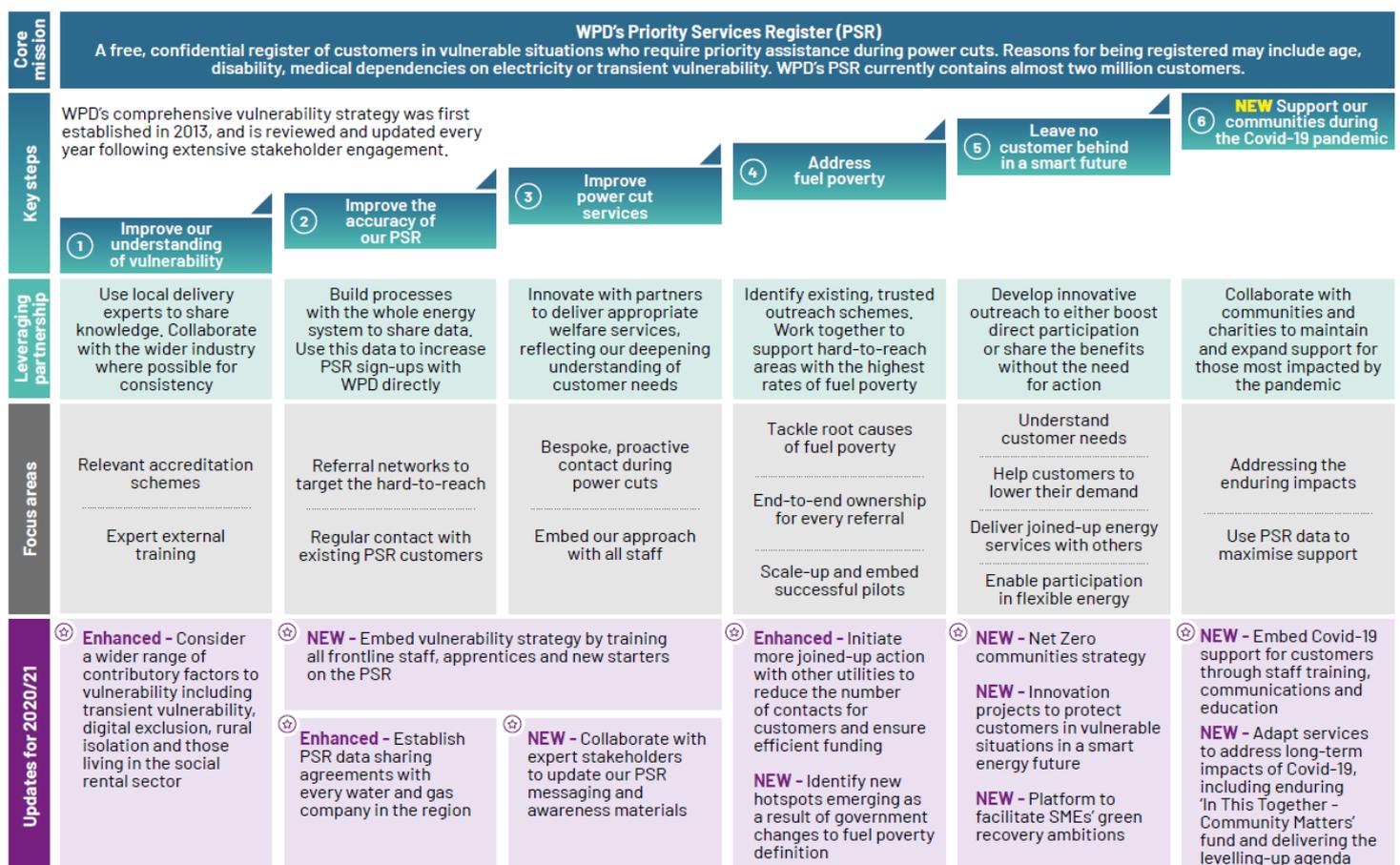

Figure SA-02.41 Supporting customers in vulnerable situations

Measures of success

4.38. We have an excellent track record of delivering positive outcomes for customers in vulnerable situations. This is best measured by the scale of the initiatives and the direct savings and benefits secured for our customers.

4.39. The success of our strategy in identifying and targeting vulnerability, along with our close collaboration with expert partners enabling us to connect with the hard to reach, has seen our PSR grow by 140% in the last seven years to 1.9 million customers.

4.40. The accuracy of the PSR is vital which is why our dedicated data cleanse teams proactively contact every customer on the PSR every two years, to update records, give advice on power cuts and offer broader support through our partnership schemes. This data accuracy enables us to contact one million customers each year, boosting our ability to provide targeted support during power cuts and improving customer satisfaction. Customers rated their satisfaction with WPD's PSR at 9.5 out of 10.

4.41. Our partner hub now has over 100 referral partners in place - a fivefold increase in four years - made up of trusted local agencies including the health sector, local authorities, charities and utilities, providing comprehensive geographic and vulnerability coverage.

4.42. These partners deliver outreach services to 'hard to reach' customers in vulnerable situations, providing referrals to WPD's PSR and holistic support services for our fuel poverty programme. After identifying a customer's needs, they work with a pool of sub-partner agencies which have specific expertise in fuel poverty. The process is coordinated by the single lead agency to avoid hand-offs and confusion. Support from these schemes takes the form of seven key interventions. These include actions such as advice on debt and benefits, energy tariff switching, energy efficiency measures, and managed referrals to water company social tariffs.

4.43. In the last two years alone (2019/20 and 2020/21), these schemes saved £20.7 million for 40,665 customers. The use of the partner hub, one-stop-shop model maximises the value and reach we achieve for each pound we spend, allowing us to achieve these savings at a cost of £1.6 million.

4.44. WPD has been the top performer for eight consecutive years in Ofgem's Stakeholder Engagement and Consumer Vulnerability (SECV) incentive mechanism. The breadth and depth of WPDs customer vulnerability programme has been consistently recognised as industry-leading, resulting in overall incentives scores of over 8 out of 10 (all other DNOs scoring below 8, see figure SA-02.42). WPD's assessments for 2019/20 and 2020/21 have been delayed by Ofgem, and therefore the data below is the latest complete information for the industry.

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	**2018/19**
WPD	8.60	8.40	8.05	8.75	8.75	8.53	8.75	**8.35**
Northern Powergrid	0.00	7.85	7.65	7.65	6.50	6.50	7.50	**7.01**
UK Power Networks	6.20	7.15	6.55	5.85	7.53	7.53	7.25	**7.95**
Scottish Power	0.00	0.00	6.65	6.50	6.78	6.28	6.35	**6.71**
Electricity North West	5.00	7.90	6.45	6.10	6.90	6.38	5.75	**4.54**
SSE	0.00	6.85	5.50	5.00	5.73	5.23	5.50	**3.95**
Best gas/ transmission	-	*6.40*	*7.15*	*7.05*	*6.90*	*7.25*	*6.40*	***6.76***

Figure SA-02.42 SECV overall incentive scores

Building our RIIO-ED2 Customer Vulnerability Strategy

4.45. We first began consulting stakeholders on our RIIO-ED2 Business Plan in 2018, and have built our Customer Vulnerability Strategy and associated commitments around their priorities. Asking stakeholders to start with 'a blank page', we sought to gather insights without asking leading questions, in order to obtain genuine responses. Starting from a blank sheet of paper was an intentional approach to:

- Refine, challenge and update our understanding of stakeholder priorities
- Identify significant changes in expectations
- Invite suggestions for how we can improve, change or evolve our operations

4.46. Our experience of delivering an extensive customer vulnerability programme means we have built a considerable knowledge to anticipate some of the needs of our customers. This understanding has been combined with the input of our stakeholders over the last two years to build tangible commitments that deliver the best possible outcomes for our customers.

4.47. Since our first engagement, we have built our Business Plan, including our commitments specifically to support customers in vulnerable situations, in stages – collaborating with stakeholders throughout, in a process of 'co-creation'. This has allowed us to play back to stakeholders what we've heard from them to ensure we have understood their needs correctly.

4.48. In its RIIO-ED2 Sector Specific Methodology Decision document, Ofgem set out the four principles and 13 baseline expectations for the standards of service that it expects DNOs to deliver for consumers in vulnerable situations during the five year price control period. We have developed the core commitments set out in this section, as well as a further 41 initiatives which underpin our Customer Vulnerability Strategy, structured around Ofgem's principles and baseline expectations.

4.49. In line with Ofgem's Principles and Baseline Expectations, WPD's Customer Vulnerability Strategy comprises delivery initiatives which underline our core mission to support customers in vulnerable situations. Whilst the Principles and Baseline Expectations have distinctive objectives, our approach recognises the complexities of vulnerability and the intersecting nature of these strategic elements, with holistic, interconnected initiatives. The links between our embedded strategic approach to the key consumer vulnerability principles of our strategy in RIIO-ED2 are set out in the figure SA-02.43.

WPD's long-standing strategy

Core mission	Key steps
WPD's Priority Services Register (PSR) A free, confidential register of customers in vulnerability situations who require priority assistance during power cuts. Reasons for being registered include age, disability, medical dependencies on electricity or transient vulnerability. WPD's PSR currently contains two million customers.	**① Improve our understanding of vulnerability** **② Improve the data accuracy of our PSR** – keep data up-to-date; identify hard-to-reach customers **③ Improve power cut services for PSR customers** – and use innovation to identify new services **④ Address fuel poverty and cold homes** – including developing referral networks to provide practical support **⑤ Leave no customer behind in a smart future** **⑥ Support our communities during the Covid-19 pandemic** – including the enduring impacts

RIIO-ED2 Vulnerability Strategy key principles

Principle 1:
Effectively support consumers in vulnerable situations, particularly those most vulnerable to a loss of supply, through a sophisticated approach to the management, promotion and maintenance of a Priority Services Register (PSR).

Principle 2:
Maximise opportunities to identify, and deliver support to, consumers in vulnerable situations through smart use of data.

Principle 3:
Understand new forms of vulnerability, in particular by identifying blockers to participating in a smart flexible energy system.

Principle 4:
Embed the approach to protecting the interests of consumers in vulnerable situations throughout a company's operations to maximise the opportunities to deliver support.

Figure SA-02.43 How WPD's Customer Vulnerability strategy maps to Ofgem's baseline principles

Our performance metrics for customer vulnerability in RIIO-ED2

4.50. Our Customer Vulnerability strategy sets out a comprehensive list of ambitious commitments we will deliver for customers. As part of this, in order to demonstrate that our actions are resulting in positive outcomes and delivering benefits that are valued highly by our customers, we have set out a number of clear performance metrics against which we will publish annual updates (see figure SA-02.44).

No.	Key metrics	RIIO-ED1 Performance	RIIO-ED2 target	RIIO-ED2 Trajectory				
				2023/24	2024/25	2025/26	2026/27	2027/28
1	Number of partner agencies using WPD data mapping	186	200 p.a.	200	200	200	200	200
2	Independent assessment of WPD data mapping quality	-	Full compliance	Full compliance	Full compliance	Full compliance	Full compliance	Full compliance
3	Number of newly identified PSR customers registering directly with WPD per year	31,000[5]	50,000 p.a.	50,000	50,000	50,000	50,000	50,000
4a	% of eligible customers registered on the PSR in WPD regions	59%	75%	61%	63%	67%	71%	75%
4b	% of customers with critical medical dependencies registered on the PSR in WPD regions	63%	80%	65%	67%	71%	75%	80%
5	Number of partner agencies trained by WPD	58	200 p.a.	200	200	200	200	200
6	PSR data and information strategy published	-	Annual	Annual	Annual	Annual	Annual	Annual
7	% of PSR customers contacted to update their records every 24 months	100%	100%	100%	100%	100%	100%	100%
8	% of PSR customers contacted to update their records by telephone	30%	60%	60%	60%	60%	60%	60%
9	Number of PSR records shared with utilities per year	100,000	150,000 p.a.	150,000	150,000	150,000	150,000	150,000
10	BMCS PSR score[6]	91.6%	93%	93%	93%	93%	93%	93%
11	AbilityNet Accreditation for WPD website	Accreditation in place	Accreditation in place	Accreditation in place	Accreditation in place	Accreditation in place	Accreditation in place	Accreditation in place
12	Independent assessment of WPD CSE standard	Top UK performer in CSE standard[7]	Top UK performer in CSE standard	Top UK performer in CSE standard	Top UK performer in CSE standard	Top UK performer in CSE standard	Top UK performer in CSE standard	Top UK performer in CSE standard
13	Independent assessment of WPD BSI18477 Standard	Full compliance	Full compliance	Full compliance	Full compliance	Full compliance	Full compliance	Full compliance
14	PSR speed of response[8]	3.97 seconds on average	2 seconds on average	2 seconds on average	2 seconds on average	2 seconds on average	2 seconds on average	2 seconds on average
15	% of care homes in WPD's region supported to create a resilience plan	-	10%	1%	2%	4%	7%	10%
16	Customer Vulnerability Action Plan published	-	Annual	Annual	Annual	Annual	Annual	Annual
17	Number of fuel poor customers supported[9]	85,000[10]	113,000	~22,500	~45,000	~67,500	~90,000	113,000
18	Total financial savings of fuel poor customers supported[9]	£35.5 million[11]	£60 million	~£12 million	~£24 million	~£36 million	~£48 million	£60 million
19	% of WPD direct PSR registrations target via staff referrals	-	5%	5%	5%	5%	5%	5%
20	Number of PSR customers offered a smart energy action plan	-	600,000 p.a.	600,000	600,000	600,000	600,000	600,000
21	% of staff receiving customer vulnerability training	100% frontline staff (Contact Centre and field staff) and all new starters (including apprentices)	100% of all staff annually	100% of al staff annually	100% of all staff annually	100% of all staff annually	100% of all staff annually	100% of all staff annually

Regulatory Reportable Evidence (RRE)

RRE 1: Number of datasets
RRE 2: Number of referral partners
RRE 3: Qualitative description of activities

RRE 4: Number of data share agreements in place
RRE 5: Data share in place with telecoms companies

RRE 6: Top ten languages in WPD region and evidence of translation services in place

[5] Approximate figure based on WPD's average registrations over the five years 2016-21.
[6] Our current BMCS PSR score is calculated based on five months of data from a pilot to capture satisfaction of PSR customers within the BMCS.
[7] Top performer in the UK out of 600 companies.
[8] Response times to calls on our dedicated PSR phone line.
[9] We are committed to a target by the end of RIIO-ED2 for the volume of customers supported and savings made by customers. We have given an indication of the trajectory taken to achieve these targets, however we recognise that these may vary within individual years, due to factors such as national policy and changes in Government funding schemes.
[10] Baseline represents the number of fuel poor customers supported over the five years 2016-21.
[11] Baseline represents actual financial savings of fuel poor customers over the five years 2016-21.

Figure SA-02.44 Customer vulnerability metrics

What our stakeholders said about the customer vulnerability and fuel poverty

4.51. What our customers considered to be their top priorities for customer vulnerability is described in figures SA-02.45.

	Stakeholder Top Priorities	Core Commitment(s) which Address this Priority
1	Make sure no one is left behind in the transition to a smart network, especially customers in vulnerable circumstances and in fuel poverty	Commitments 18, 19 and 22
2	Develop and continue to expand partnerships with carers and charities such as Citizens Advice	Commitment 19 and 20
3	Facilitate better data sharing and work towards creating a centralised PSR	Commitment 20 and 21
4	Educate customers and raise awareness of the PSR, using a range of methods, to increase the number of people signing up	Commitment 21
5	Work with Ofgem to allow data to be safely shared with other utilities	Commitment 21
6	Provide funding and increase the support given to referral networks	Commitment 19
7	Continue to identify vulnerability by working with partners including local authorities, disability forums and health and social care providers	Commitments 19 and 20

Figure SA-02.45 Stakeholder top priorities for customer vulnerability

Protect the interests of vulnerable customers in the switch to a smarter network

4.52. The UK's ambition to achieve Net Zero emissions by 2050 has accelerated the development of technologies to enable decarbonisation, with new opportunities rapidly emerging for customers to change their energy habits in order to access a range of financial benefits. However, with the introduction of these offers lies the potential for those in vulnerable situations to unfairly miss out on the benefits of a smarter network, due to factors such as energy use, property type or income. This poses the risk of burdening the most vulnerable customers with the additional costs of developing a smart network, while preventing them from accessing the benefits.

4.53. WPD is committed to delivering a fair and just transition to a smart network and net zero carbon economy. Our stakeholders have supported us to build a robust and ambitious plan to ensure those who are vulnerable or in fuel poverty are not left behind and are able to access the opportunities to reduce costs.

Core Commitment 18	Ensure customers are not left behind in the smart energy transition by offering at least 600,000 Priority Services Register customers a bespoke smart energy action plan each year.

4.54. We will therefore expand the scope of our calls to PSR customers, offering customers the opportunity to develop a smart energy plan tailored to their circumstances. Specially trained staff will identify the specific smart energy needs of our PSR customers offering customers the opportunity to develop a smart energy plan tailored to their circumstances and to be referred to a range of expert partner agencies delivering enduring support to enable them to participate in smart services, including flexibility markets.

4.55. As part of the first draft Business Plan consultation, our stakeholders were asked whether they supported a core commitment to broadly support vulnerable customers in this way. The results are shown in figure SA-02.46.

Model to support vulnerable customers
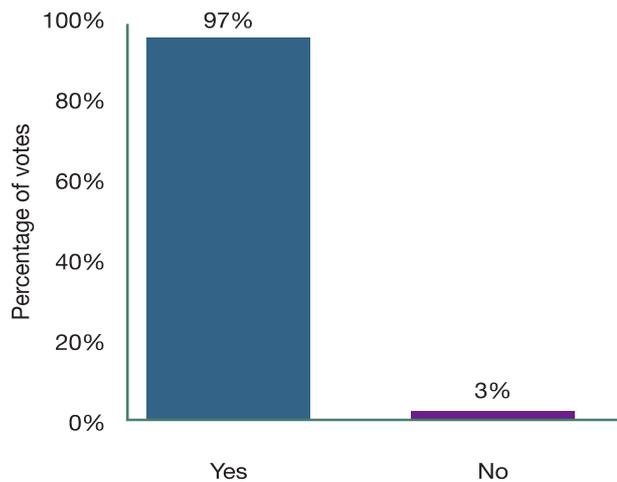
Develop a model to identify the capabilities of vulnerable customers to participate in a smart, low carbon future. Use this to maximise participation, remove barriers to entry and encourage collaboration with the wider industry

Figure SA-02.46 Stakeholder consultation feedback results – Model to support vulnerable customers

4.56. As part of our second draft Business Plan consultation, our stakeholders strongly welcomed this commitment but felt that it needed to be more measurable. As a response to this, we added in the commitment to ensure 60% of our PSR customers would get specific support and education to ensure that they are not left behind in the move to smart, low carbon technology.

4.57. A key step to ensure we deliver a smart and fair energy network, will be our understanding of how the parameters of vulnerability are likely to change as the network becomes smarter and greener. In particular, as the uptake of low carbon technology increases, we must anticipate the impacts for those in vulnerable situations and develop interventions to widen participation and mitigate the risk of customers being left behind.

4.58. Our Customer Vulnerability Strategy sets out our commitment to continually improve our view of vulnerability, in particular, understanding the way in which the net zero transition will impact vulnerable customers and create new types of vulnerability. It will enable us to identify innovative interventions to mitigate the risk of vulnerable customers suffering detriment, by removing barriers to participation and actively promoting opportunities to take part in smart network offerings. We will:

- Build on the 'Smart and Fair?' research project in partnership with the Centre of Sustainable Energy to implement findings from the Capability Lens (a tool to identify the factors that may affect households' ability to participate in smart energy initiatives), and consumer classification model, developed to focus on fuel poor customers and their ability to benefit from the transition to a smart low carbon network. We will use utilise the tools to understand the range of characteristics impacting the ability of a domestic household to participate in smart energy offerings, map capabilities against smart energy offers and understand the those at risk of being disadvantaged.

- Use the Capability Lens and consumer classification model to recalibrate our existing partner outreach schemes to provide more holistic support to the vulnerable and fuel poor, and provide specific support in relation to the smart energy transition. For example we will do so by targeting digitally excluded customers and engaging with landlords and collaborating with our partners to financially benefit customers via our fuel poverty interventions. Given those situations will change as a smarter energy system emerges, we will continue to enhance and refresh our approach as our understanding improves.

- Work with key stakeholders to understand and serve the needs of disabled electric vehicle drivers, ensuring they are provided access to adequate charging infrastructure in a timely manner, delivered as part of local area energy plans. At this stage, it is crucial to understand not just the barriers faced, but also how best to deliver solutions, and who is best placed to provide them. We plan to develop a coordinated approach, working with local authorities and key supply chain stakeholders through early trials which will inform the support we deliver in RIIO-ED2.

- Collaborate with industry partners to create an online platform to specifically engage with small and medium enterprises to support their participation in the net zero transition, with which many have raised the need for extra help and information. We will bring together tools, advice and support, and provide energy resilience advice in relation to dealing with power cuts.

4.59. Having developed a tool to understand the range of capabilities to support customers in vulnerable situations during the smart energy transition, stakeholders want us to roll this out to as many customers as possible. We will use our contact with PSR customers every two years, of which 60% will be attempted over the telephone (600,000 per year). This will offer customers the opportunity to develop a smart energy plan tailored to their circumstances and to be referred to a range of expert partner agencies delivering long-lasting support to enable them to participate in smart services, including flexibility markets. In our first draft Business Plan consultation, 97% of stakeholders supported the development of a model to understand the needs and capabilities of customers in vulnerable situations, and 47% backed the idea of supporting the maximum number of customers, resulting in an increased target of 60% of WPD's PSR to be offered this service.

4.60. In addition, and as set out in our Customer Vulnerability strategy, we will:

- Increase education through WPD's stakeholder engagement, online presence and partner agencies to ensure these customers are not left behind.
- Ensure all WPD innovation schemes take into account the possible effects on vulnerable customers. We will also design innovation schemes which enable communities and the fuel poor to benefit from the use of smart systems and low carbon technology.
- By identifying those who could be left behind in advance – rather than after a project's launch – we will be able to calibrate our approach to ensure the widest possible benefits from day one.
- Take a leading role in initiating collaboration with a range of industry participants to share best practice and co-deliver schemes to ensure vulnerable customers are not left behind by the smart energy transition.
- Stakeholders want WPD to take a lead role in ensuring the energy transition is fair and provides benefits for the vulnerable and fuel poor. We will share best practice with industry peers and use the learning and feedback from our stakeholders to inform the Government's and Ofgem's energy policy, to ensure the needs and interests of vulnerable customers are addressed.

Partnerships, outreach services and fuel poverty

4.61. Our fuel poverty schemes work in a 'hub' model to deliver comprehensive support, with an appointed 'lead partner agency' in each of our four licence areas that assesses the individual

needs of each customer. After identifying their bespoke requirements, the lead agency works with a pool of sub-partner agencies with specific expertise across the range of factors impacting fuel poverty. Everything is coordinated through the lead agency to avoid hand-offs and confusion for customers. Stakeholders have made it clear that WPD should continue to use this partnership hub model to deliver our customer outreach schemes. They have challenged us to increase the number of partners we work with, broadening the scope of our support interventions, particularly when enabling customers to access opportunities presented by smart low carbon initiatives.

4.62. Our work to support those in fuel poverty through a network of referral partnership schemes has already helped more than 92,000 customers to save £37 million in the first six years of RIIO-ED1. Although WPD is not the cause of fuel poverty and does not directly bill customers, stakeholders have told us that we are uniquely placed to provide a trusted service to support these customers and we have an impressive track record of doing so with greater success than any other major organisations. Stakeholders have therefore urged us to continue and further expand our services to the benefit of the communities we serve. Our efforts to date have been highly effective, bringing significant value to those supported and far outstripping the cost of delivery. To increase the impact of our support services, stakeholders have asked us to prioritise the identification of fuel poverty, helping us to understand more about the circumstances which can lead to customers struggling with their bills. By doing this, we will be able to identify customers who may be affected, refining the scope of support and our ability to target those in greatest need.

Core Commitment 19	Support at least 113,000 fuel poor customers to save £60 million on their energy bills over RIIO-ED2.

Fuel poor customer savings

Support fuel poor customers to make savings on energy bills over RIIO-ED2
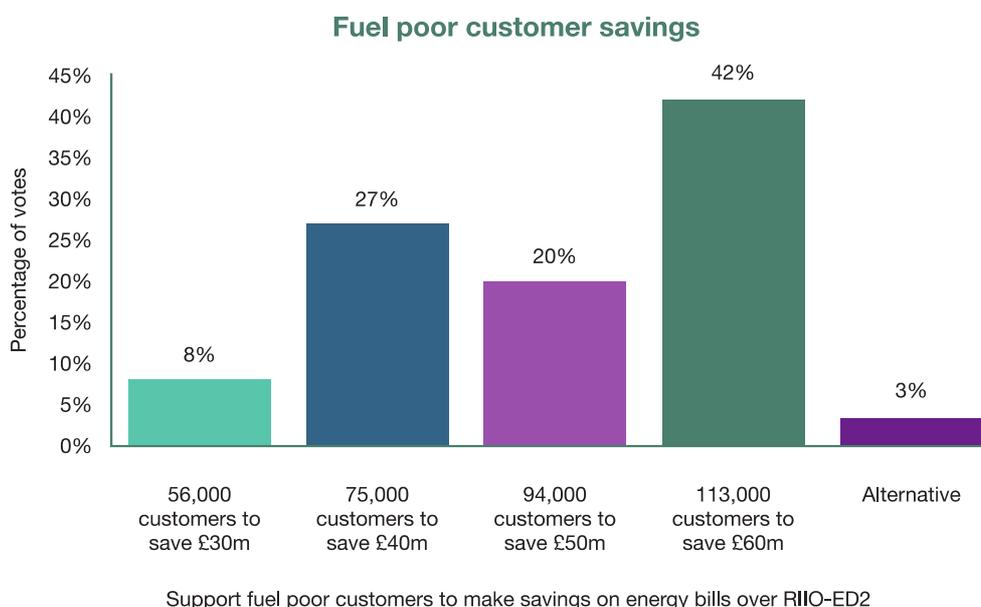
Figure SA-02.47 Stakeholder consultation feedback results – Fuel poor customer savings

4.63. As part of the Business Plan consultation, our stakeholders were asked what level of support we should provide for fuel poor customers. In the first six years of RIIO-ED1 (therefore a comparable time period to the upcoming five year price control review for RIIO-ED2), and at the time of our first draft Business Plan consultation, we had delivered support to 92,000 customers, directly saving them £37 million. In our preliminary stage engagement, stakeholders had asked us to go further in our levels of fuel poverty support, but not to go too far (particularly the view of major users and business customers) and risk duplicating the services of other agencies. Most importantly stakeholders stressed a duty to keep WPD's overall bills as low as possible and

therefore to seek to do more but without increasing our charges significantly. In our first draft Business Plan, we therefore proposed supporting 75,000 customers to save £40 million which was a significant improvement on WPD's current performance, which significantly surpasses performance by others in the sector (using the information publicly available, for RIIO-ED1 to date, the average savings amongst other DNOs for fuel poor customers was £1.6 million.) In the consultation, we therefore gave our customers five choices, including options to go further than our initially proposed level. The results are shown in figure SA-02.47.

4.64. As part of our consultation, our stakeholders felt that we should be doing more. This was further reinforced by surveys with end-user customers, of whom 75% wanted to see the higher option of 113,000 customers supported to save £60 million. As a result we have increased this core commitment to reflect the wishes of the majority.

4.65. Our Customer Vulnerability Strategy sets out our commitments to:

- Ensure every WPD fuel poverty outreach scheme delivers a minimum of nine core interventions, to ensure holistic support for customers. This includes:
  – Income maximisation
  – Tariff switching
  – Energy efficiency measures
  – Boiler replacements and heating technologies
  – Health and wellbeing measures
  – Behavioural changes (energy use)
  – Managed referrals to water company social tariffs
  – Befriending services
  – Managed Fuel poor Network Extension Scheme applications and Carbon Monoxide monitors

- Deliver outreach projects through a network of trusted partnerships. We will also continue to expand partnerships, scope and reach to support the vulnerable and fuel poor.
- Improve the targeting of PSR services and outreach projects through data sharing with other key agencies (e.g. utilities) and conduct extensive data mapping in collaboration with expert partners to identify those in greatest need.
- Develop a range of tools to increase our understanding of fuel poverty and to identify customers impacted, in order to better target our outreach services
- Engage with our partners and other expert stakeholders to share best practice and increase understanding of circumstances leading to fuel poverty and the support which can be provided. Our annual consumer vulnerability workshops will provide the platform to collaborate with stakeholders and co-create the areas of our consumer vulnerability strategy dealing with fuel poverty. We will also update our data mapping to improve the granularity and detail of fuel poverty indicators to support the better targeting of outreach services.
- Run an annual fuel poverty innovation competition 'Energy Affordability Fund' seeking innovative projects to tackle fuel poverty.
  Develop and implement new interventions for fuel poverty outreach schemes, specifically targeting advice to support customers in the energy transition, enabling them to participate in the opportunities this provides to help them with their energy costs.

Maintain a Priority Services Register (PSR)

4.66. The PSR is crucial to our work to support vulnerable customers during power cuts. It is also the basis for WPD initiatives to help increase customers' resilience to power cuts and address any problems they may have with energy affordability.

4.67. The effectiveness of the PSR and its role in helping us to look after our vulnerable customers depends on its accuracy. Our dedicated team PSR data cleanse teams are trained to give specialist advice to PSR customers when contacting them to update their records.

4.68. In relation to this area of activity, our Customer Vulnerability Strategy sets out a number of commitments, including that we will:

- Maintain the accuracy of our PSR by proactively contacting over two million customers every two years to review and update their records. These contacts will also enable our dedicated teams to give advice on power cuts and offer broader support through our partnership schemes.
- Work with a network of over 150 partner agencies and other utilities to increase data sharing and achieve a 'one stop shop' service for vulnerable customers wishing to join the PSR.
- Share over 150,000 PSR records each year with partner agencies, including every water and gas company in our region on a monthly basis.
- Identify and encourage over 50,000 'hard-to-reach' vulnerable customers to join the PSR each year.
- Increase the reach and overall effectiveness of the PSR by increasing awareness and working with trusted agencies to increase referrals to the PSR.
  Deliver training to all frontline staff every year, with key training for all staff and tailored training for employees who regularly interact with customers in vulnerable situations, to expand our understanding of the diverse nature of vulnerability and identify opportunities to prioritise those in greatest need during power cuts

Core Commitment 20	Expand the reach of our Priority Services Register to at least 75% of total eligible customers and 80% of customers with critical medical dependencies to ensure those in greatest need receive targeted support services. This will include registering at least 50,000 additional hard-to-reach customers each year.

4.69. Some households are likely to be eligible for the PSR for multiple reasons – for example, through an individual having multiple conditions, or through multiple individuals with vulnerabilities living in the same house. For the purpose of calculating WPD's PSR coverage, these households only needs to be counted once, and 'households' and 'customers' can be used interchangeably, as typically only one person in a household is named on the energy bill or registered with the DNO.

4.70. Working with the Centre for Sustainable Energy, we have revised the methodology used to calculate our PSR coverage, achieving an accurate estimation of 59% PSR reach. WPD's latest data is now based on households and the overall vulnerable situations facing those occupants (therefore considering where vulnerabilities overlap and also occurrences of multiple PSR occupants). The methodology is explained in more detail in our Customer Vulnerability Strategy.

4.71. Taking our new baseline of 59% PSR coverage, we refined our target to expand the reach of the PSR to 75% of total eligible customers and 80% of customers with critical medical dependencies. When we tested the level of ambition with stakeholders at topic specific workshops, 80% supported this update to the commitment.

4.72. Our stakeholders wanted us to ensure that we encourage hard to reach vulnerable customer to join our PSR, revealing this as a high priority area. In RIIO-ED1 on average, around 20,000 newly identified customers are registered to WPD's PSR each year, as a result of our outreach and referral partnerships. With an increasing number of customers being identified and registering each year, we used our current performance to set a baseline and in our first draft Business Plan, we therefore proposed to target 30,000 hard to reach customers to join our PSR. As part of the first draft Business Plan consultation, our stakeholders were asked what level of hard to reach customer we should target. In the consultation, we gave our customers five choices and the results are shown in figure SA-02.48.

Hard-to-reach customers to join the PSR

Identify and engage with hard-to-reach vulnerable customers
every year to join the Priority Services Register in RIIO-ED2

Figure SA-02.48 Stakeholder consultation feedback results – Hard-to-reach customers to join the PSR

4.73. With the majority of stakeholders favouring an increase in ambition and an increase to 50,000 customers - when combined with surveys of end customers (57% supporting the maximum ambition) and a high value to customers in our social value research, this has been reflected in our core commitment.

Core Commitment 21	Achieve a 'one stop shop' service so that customers only have to join the Priority Services Register once to be registered automatically with their energy supplier, water company, gas distributor and telecommunications companies.

4.74. Stakeholders have consistently fed back the importance of WPD's one-stop-shop approach to supporting customers in vulnerable situations, which has seen us pioneer the sharing of PSR registration data with water and gas companies during RIIO-ED1, sharing 112,493 record with water companies in 2020/21 alone. Stakeholders therefore encouraged us to extend this approach as much as possible. They want us to lead a joined-up approach with other partners and in particular other utilities, expressing the importance of customers only needing to sign up with one company so that they can be automatically registered with others. We therefore developed this core commitment from stakeholders' suggested commitments to work cross-utility, increase data sharing and work towards a single register. As part of the first Business Plan consultation, our stakeholders were asked whether they supported this core commitment. The results are shown in figure SA-02.49.

4.75. As part of our consultation, our stakeholders felt that we should be extending the 'one stop shop' to include telecommunications companies. We have therefore increased the level of ambition of this core commitment, expanding the scope to incorporate this additional sector.

"One stop shop" for PSR registration
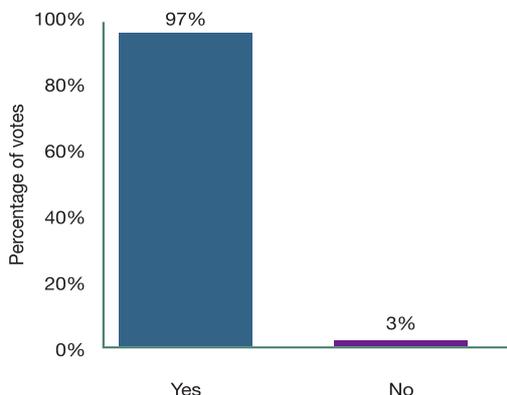
Achieve a "one stop shop" service for vulnerable
customers joining the Priority Services Register so
that they only have to register with WPD once to be
registered automatically with their energy supplier,
water company and gas distributor

Figure SA-02.49 Stakeholder consultation feedback results – One-stop-shop PSR registration

Core Commitment 22	Maintain high quality data to allow us to deliver bespoke support to customers in vulnerable situations by proactively contacting over two million Priority Service Register customers once every two years to remind them of our services and update their records (with 60% via direct telephone call).

PSR customer telephone contact

Customer satisfaction
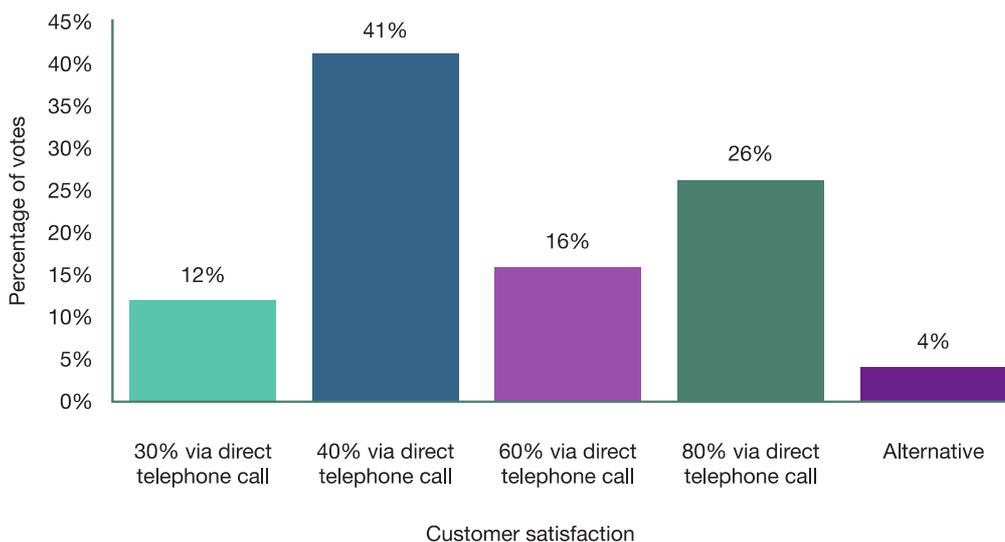
Figure SA-02.50 Stakeholder consultation feedback results – PSR customer phone contact

4.76. Keeping PSR records update is critically important and our experience has demonstrated there is huge benefit in contacting PSR customers by phone to do this. Not only does this ensure customers' records are accurate, it also provides the opportunity to discuss how their circumstances might have changed and offer further advice and support. In RIIO-ED1 we currently contact all WPD PSR customers once every two years and 30% of these are by telephone. With stakeholders identifying this as an important activity to continue, in our first draft

Business Plan we asked our stakeholders what level of direct telephone contact we should commit to. We gave them four options which are practical to deliver – 30% (which is the current level), 40% (our first draft Business Plan current view), 50% and 60%. Stakeholders also had the option to choose an alternative if they felt these options did not provide the level of service that they wanted. The results are shown in figure SA-02.50.

4.77. As part of our consultation, 41% of our stakeholders felt that 40% direct telephone contact was acceptable but 42% opted for either 60% or 80%. When combined with the additional value delivered by direct telephone contact (additional advices and support), because a majority were indicating that 40% direct contact level was not ambitious enough but there wasn't consensus on the desired upward level, we increased the commitment to 60% (mid-point option) to reflect the combined view.

Referral networks, data sharing and data quality

4.78. To provide bespoke support for customers and increase the reach of our programme, we must locate the hardest to reach and most in need, establishing effective, trusted contact through a single point and continually improve the accuracy of the data we hold.

4.79. WPD's consumer vulnerability data mapping enables us to see where potentially high volumes of vulnerability align with gaps in our PSR take-up. As part of our strategy, we will reach out to trusted local agencies which can help to extend our support to these areas, ensuring that more comprehensive overage.

4.80. Stakeholders tell us that customers become confused, if they are asked to deal with multiple different contacts. It is much better for customers to have a single point of contact to bring together multiple areas of expertise. Stakeholders also urge us to maximise the impact of every penny we spend. Our work with a wide range of trusted partners, to deliver more effective support programmes by combining the expertise of different agencies, has delivered successful outcomes for customers.

4.81. Our Customer Vulnerability Strategy sets out a number of relevant commitments to:

- Deliver detailed social indicator mapping (expanding the range of input data year-on-year) to the support services delivered by WPD and our referral partners, using this to target those in greatest need, increasing the effectiveness of these services and connecting more effectively with the 'hard to reach'.
- Commission an annual horizon scan with the Centre for Sustainable Energy (CSE) to identify additional data sets to incorporate into data mapping and potential new referral partners.
- Increase the range of information included in our social indicator mapping giving additional layers to target specific causes of vulnerability.

4.82. By improving the depth of information in our social indicator mapping, we can identify gaps where coverage by our PSR and referral partners may be low. Work being carried out with the Centre for Sustainable Energy and SSE Networks will help us develop an understanding of customers' capabilities to take part in the smart energy transition and any barriers they may face. These findings will be used to enhance our data mapping. This additional information will also be used to give added focus to innovation schemes and initiatives to support the vulnerable, ensuring they are not left behind in this transition. We will:

- Continue to open source all of our social indicator mapping tools and we will work with partners agencies, including local authorities, allowing them to access our data to better target their services and develop innovative, collaborative outreach schemes with WPD.

- Promote the use of our social indicator mapping by community support agencies, as well as providing training and guidance. This will enable us to build further relationships with these agencies and provide more opportunities for collaboration and informative feedback.

Customer vulnerability action plan

4.83. Stakeholders have challenged us to do more and go further in identifying vulnerability. Through this we can ensure that we can gain new insights and seek out new ways in which we are best placed to provide support for customers.

4.84. Our Customer Vulnerability Strategy sets out our commitments to:

- Work with expert stakeholders, including our Customer Collaboration Panel and referral partners, to refresh our definitions and understanding of 'vulnerability' each year and co-create an ambitious annual action plan to develop new, innovative outreach initiatives for the vulnerable and fuel poor.
- Use our annual consumer vulnerability workshops to engage these expert stakeholders and to work with them to develop our understanding of vulnerability, share best practice and understand the priorities which need to be addressed. We will also use this engagement to collaborate on the annual update of our Customer Vulnerability Strategy.

Customer resilience to power cuts

4.85. Vulnerable customers often need extra support during a power cut. We are committed to helping to increase the resilience of our customers in vulnerable situations and providing targeted support during power cuts. Our Customer Vulnerability Strategy sets out our commitments to:

- Continue to work with our partners, including the Red Cross and the National Caterers Association, to deliver crisis packs, warm meals and alternative accommodation to customers in vulnerable situations during power outages. With each situation being unique and customers requiring support tailored to their individual needs, the provision of these services will always be on a case-by-case basis, with local teams able to make decisions when supporting customers in a prolonged power outage.
- Develop innovation trials to understand how the opportunities provided by new technologies, such as smart networks and low carbon technologies, can be used to provide increased resilience for customers in vulnerable situations;
- Promote the PSR and educate customers on the services provided to ensure the services reach those most at risk due to power cuts;
- Use targeted social media campaigns, working with local agencies, including those in the health sector, to broaden awareness and increase understanding of the PSR among the vulnerable and those who support them. This will include advice on what to do in a power cut, promoting the 105 phone number. We will measure referrals to the PSR arising from these initiatives;
- Provide customers with information on every planned and unplanned outage, giving restoration times and progress updates, contacting them proactively using their preferred method of communication whether that is call back, text message, WhatsApp or interaction on WPD's smart device app.
- Continue to maintain partnerships with Local Resilience Forums to assist in the co-ordination of community support during incidents such as flooding
- Work with expert stakeholders to develop resilience planning specifically targeted at premises providing care and support for vulnerable customers, including care homes, refuges and shelters.

WPD's Social Contract

4.86. At WPD, we are committed to being a good corporate citizen, delivering social and environmental value for our employees, customers and wider society. This is enshrined in our purpose – to deliver exceptional service to customers and support the environmental and social wellbeing of the communities we serve through our commitment to 'power for life, power for future generations'.

4.87. As the largest DNO in the UK, it is crucial that we continue to build enduring relationships with our local communities, fostering trust in the service we provide and the way we provide it. This means not only complying with our regulatory obligations, but demonstrating our contribution to society more broadly and identifying where we can go further to deliver the greatest impact. That is why we are producing our very first Social Contract, providing a framework for the delivery of additional actions that generate wider social, environmental and employee benefits.

4.88. While our Business Plan sets out what we will do over the next five-year regulatory period, our Social Contract outlines how WPD will act in pursuit of our purpose. The Social Contract therefore simultaneously underpins, and builds on, what we set out in our Business Plan, by outlining the guiding principles of our actions, as well as initiatives that go over and above to generate wider social impact.

4.89. Our Social Contract is available on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42057 and appendix A11 of this document.

4.90. We began consulting with stakeholders to co-create a robust Social Contract in February 2019 and have engaged extensively with expert bodies, including Citizens Advice and Sustainability First. Their joint feedback challenged us to demonstrate our commitment to customers and the communities we serve. WPD's Social Contract will allow us to be held to account by our stakeholders, with transparent evaluation and frequent reporting.

4.91. Our Consumer Value Propositions are also a vital component of the Social Contract. By delivering value over and above the minimum standards set out in the Business Plan, we can demonstrate WPD's ethos, through our commitment to being a force for good in our communities.

What is a Social Contract?

4.92. Our stakeholders have made it clear that they expect more than the service of a reliable electricity supply at a reasonable price. Customers are taking a greater interest than ever in where their money is going and want to see us contribute to society and protect the environment. We are making clear commitments to do this, going beyond the basic requirements of regulation, legislation and traditional corporate social responsibility.

4.93. As part of RIIO-ED2, stakeholders have called on WPD to deliver a social contract that differs from traditional corporate social responsibility commitments. They identified key aspects to be included, with measurable targets wherever possible, and placed significant importance on external reviews and transparent reporting as important ways of demonstrating delivery.

4.94. WPD's Social Contract is not a silver bullet, but it is a commitment to actively listen to our employees and communities and act in their best interests, contributing positive solutions to the

social and environmental challenges they face. Providing a transparent mechanism for the delivery and reporting of initiatives that generate wider values for society, it fosters accountability through a rigorous process of engagement review and improvement.

4.95. We don't expect there to be a 'one-size-fits-all' solution; instead, the Social Contract formalises WPD's commitment to deliver our purpose in a way that can be tailored at a local level to meet the bespoke ambitions of different areas. To ensure our promises are meaningful and impactful, the Social Contract is a 'living document', defined by ongoing engagement and improvement to meet the evolving needs of our communities.

Our Social Contract core commitments for RIIO-ED2

What our stakeholders said about the Social Contract

4.96. What our customers considered to be their top priorities for social contract is described in figures SA-02.51.

	Stakeholder Top Priorities	Core Commitment which Addresses this Priority
1	Deliver excellent service (at a fair price)	Commitment 24
2	Get the basics right (with ongoing feedback from customers)	Commitment 24
3	Display excellent corporate behaviours (and governance)	Commitments 23, 24 and 25
4	Meet sustainability and climate change challenges	Commitment 10, 24 and 25
5	Build links and a clear understanding of the communities it serves	Commitment 24 and 25

Figure SA-02.51 Stakeholder top priorities for the social contract

How WPD's Social Contract was built

4.97. We have co-created our Social Contract with stakeholders as part of an iterative, where we played back what we've heard after each stage to check our understanding before updating our approach and retesting our proposals. At each stage of engagement we have therefore involved various groups, ranging from expert and interested stakeholders to end customers with little prior knowledge of WPD or the concept of a Social Contract.

4.98. Figure SA-02.52 outlines the stages of development undertaken in collaboration with stakeholders to produce this Social Contract:
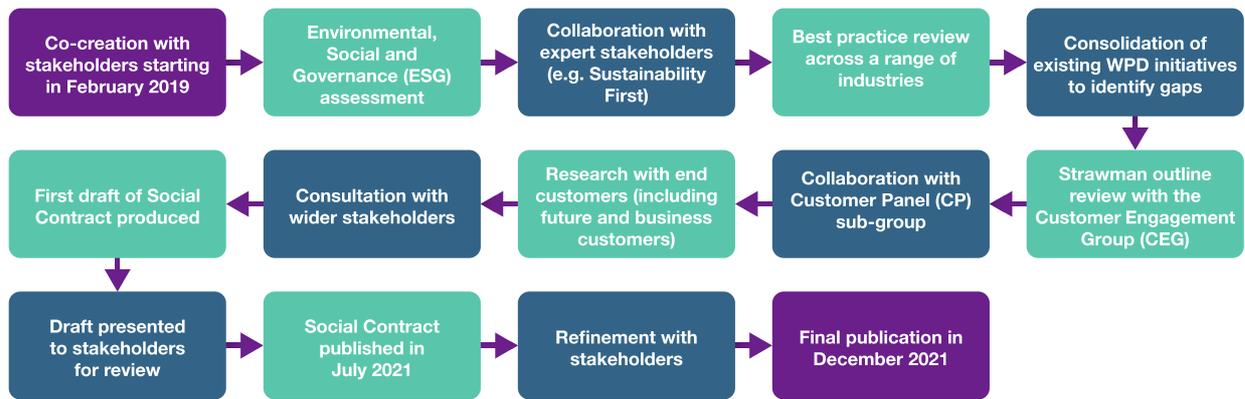
Figure SA-02.52 The engagement process followed to co-create our Social Contract

4.99. As well as taking part in co-creation workshops with stakeholders, WPD has been a key contributor to the 'Fair to the Future' project, led by Sustainability First. This scheme aims to define a 'sustainable licence to operate' and has heavily influenced the development of WPD's Social Contact. We aim to go beyond the minimum standards needed for licence compliance and to demonstrate our commitment to key focus areas identified by our stakeholders (set out below). This includes engaging extensively with stakeholders to understand, address and meet their changing needs and expectations.

4.100. Comprehensive benchmarking research has been conducted to review best practice with regards to Environmental, Social and Governance (ESG) activities. This has enabled us to objectively gauge how we are currently performing and to identify areas for innovation and improvement.

4.101. Working in collaboration with a sub-group of WPD's expert Customer Panel has enabled us to further refine our approach, including co-creating our delivery strategy and reporting metrics. Members drove key changes to the strategic framework and gave us assurance that the correct focus areas, from our stakeholders' perspective were represented.

4.102. We adopted a new approach to seek the insights of end customers, developing the expertise of 96 customers over a two month cycle of weekly research exercises and deliberative discussions. The group, including domestic customers (across a range of ages, geographies, ethnicities and socio-economic groups), business customers and future bill-payers, completed initial 'homework' tasks set via an online platform, which provided context to generate spontaneous insights. We then brought together small groups on Zoom, building their knowledge to provide informed feedback on specific areas of the Social Contract.

4.103. Co-creation with stakeholders resulted in the identification of four overarching objectives for the Social Contract, within which there are 15 key priorities, as per figure SA-02.53.

Transparent reporting	Diverse, responsible employer	Legitamacy for the future	Support communities
Industry leading performance	Responsible and transparent board governance arrangements	Excellent environmental performance	A framework to engage local communities
Fair prices and returns/profits	Workforce welfare	Transparent mechanisms so customers can influence decisions	Local community investment
Clarity on tax affairs and dividend payments to shareholders	Workforce diversity	Innovation to meet societal challenges (as well as regulatory/ technological)	Community and environmental benefits
	Equal pay	Methods for measuring social values of activities	Positive outcomes for customers in vulnerable situations

Figure SA-02.53 Stakeholder's 15 key priorities

4.104. As a result, the Social Contract consolidates the huge range of activities we already deliver during RIIO-ED1, and significantly expands this with new, ambitious actions for RIIO-ED2 as part of a single, coherent social impact strategy. The proposed actions and key performance measures have been developed with business owners across different areas of the company, alongside stakeholders, within three key areas (see figure SA-02.54).

1 Employer of choice	2 Empowering communities	3 Environmental steward

Figure SA-02.54 Social Contract key focus areas

4.105. Achieving the aims of the Social Contract is not only about the actions we deliver, but fundamentally, the way we go about doing so. Based on our stakeholders' priorities, we have identified five key principles to guide the delivery of the Social Contract (see figure SA-02.55), and underpin our approach to good corporate citizenship more broadly:

1	Transparent:	Impact measurement, clarity on governance and ethics, open source successes and failures for others to learn from
2	Innovative:	Innovation to meet societal challenges, industry-leading approaches
3	Embedded:	Collaboration and partnerships, purposeful leadership at every level, consideration of the full impact of our operations
4	Locally-specific:	Meeting the needs of communities by taking a 'bottom up' approach
5	Adaptive and evolving:	Flexible to future challenges, continual engagement, review and improvement

Figure SA-02.55 Social Contract five key principles for delivery

WPD's Social Contract commitments

4.106. To achieve the objectives set by our stakeholders, and address these key focus areas, we have made a number of commitments to be delivered throughout the RIIO-ED2 period. These commitments are part of WPD's core Business Plan, and serve to complement and enable the delivery of the wider actions set out within the Social Contract, to:

- Provide transparent reporting (with clarity on returns and profits)
- Demonstrate WPD is a diverse and responsible employer
- Evidence the legitimacy of our operations for the future
- Play an active role regionally and support vulnerable customers.

4.107. Alongside the core commitments made in our Business Plan, the Social Contract contains an action plan, which will be reviewed and updated annually in line with stakeholder feedback and external evaluation. The first action plan consists of 36 new and continuing initiatives, with clear targets for each. Where a target has not been set, metrics are specified, against which progress will be reported annually.

Play an active role regionally and support vulnerable customers

4.108. In RIIO-ED2 we will:

- Support 300,000 people in our communities through our annual £1 million 'Community Matters' fund to help vulnerable customers across our region.
- Establish a staff volunteering scheme encouraging staff to volunteer at local community projects. We will allocate 1,000 staff volunteering days every year during RIIO-ED2.

4.109. The Social Contract will deliver a shareholder-funded annual £1 million support fund for local community initiatives and good causes. Building on the momentum of our 'In This Together – Community Matters' Covid-19 relief fund, we will ensure that the grassroots organisations that play a crucial role in our communities are sustained long-term, leveraging opportunities to combine with our core PSR and fuel poverty services to support the most in need. The funding will have defined focus areas and eligibility criteria, going beyond traditional corporate social responsibility to ensure that the money spend delivers the maximum social impact and

contributes to the delivery of WPD's purpose. Therefore, the fund will specifically partner with communities to achieve positive change in respect of areas in intervention as shown in figure SA-02.56.

Areas of intervention	Example activities planned
STEM Enable more participation in science, technology, engineering and maths and the future career opportunities the subjects can offer	• Recruitment and training of STEM ambassadors across a range of sectors and organisations, *i.e. enables opportunities to work with schools, mentor, careers advice, etc.* • Supporting wider STEM education activities, e.g. more STEM resources in schools; develop a WPD online resource offering; Duke of Edinburgh initiatives; Scouts/Guides education packages. • Green power initiatives and technology installations in schools and community centres.
Diversity Encourage diverse workforces and inclusivity for all	• Funding for skills training packages • Mentoring services • Innovation initiatives to encourage diversity in the workplace
Safety Support people to stay safe when working and carrying out leisure pursuits	• Community defibrillators • Improving access to local safety centres • Expansion of local safety centre education packages and outreach • First aid training and resource packages • Expert training packages for key groups working in and around the electricity network, *e.g. farmers and construction.*
Low carbon and energy efficiency Activities to reduce carbon emissions and energy use to support a more sustainable future and Net Zero	• Community advice services • Conservation activities, such as tree planting, biodiversity and park renovations. • Innovation initiatives to remove barriers to participate in a low carbon future, *e.g. support for disabled drivers to access electric vehicle charging.*
Vulnerability Actions to support and protect those who most need help in society	• Home deliveries for the socially isolated • Befriending services • Meal support • Improving online and face-to-face access services for organisations supporting vulnerable customers • Priority Service Register additions • Fuel poverty alleviation services

Figure SA-02.56 Social Contract areas of intervention.

Core Commitment 23	**Support and add significant value to our local communities via a 'Community Matters' social initiative associated with the smart energy transition, vulnerability, environment and sustainability. This will include a shareholder funded annual £1m community support fund and 1,000 volunteer days per year for WPD staff to support local causes.**

4.110. Our stakeholders wanted WPD to support the community, bolstering the local initiatives and good causes that provide essential local services. Particularly in light of Covid-19, stakeholders believed that WPD's Social Contract should deliver something that goes over and above to support our communities. Research with end customers revealed that WPD should enhance and champion local grassroots efforts to leverage established community networks and relationships.

4.111. Our proven track record of delivering £1 million in Covid-19 relief funding indicated the approximate level of ambition accepted by stakeholders in this area, enabling us to scope the range of options to put forward.

4.112. Therefore, in our first draft Business Plan, we included a commitment to provide an annual fund of £1 million to support the community. As part of the first draft Business Plan consultation, our stakeholders were asked what level of financial support they wanted WPD to provide. We gave our customers five choices and the results are shown in figure SA-02.57.

Community matters funding level

What level of funding would be appropriate to support the community
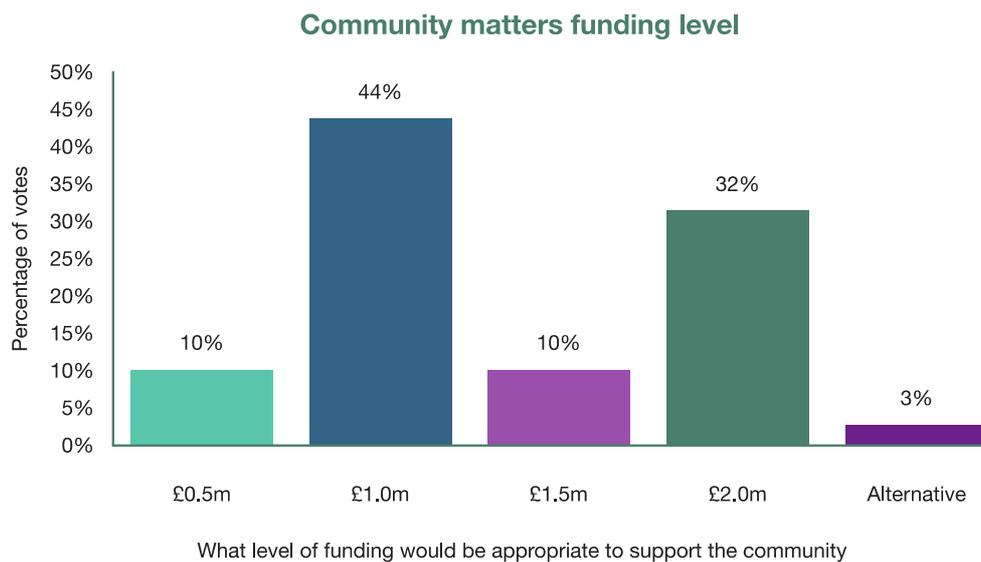
Figure SA-02.57 Stakeholder consultation feedback results – Community Matters funding level

4.113. As part of our consultation, our stakeholders felt that £1 million was appropriate but also felt that it should not be funded by the customer. We took that feedback on board and changed the commitment to state that it would be funded buy our shareholders at no cost to our customers.

4.114. Our stakeholders wanted to support the community in a number of ways. They suggested that WPD should focus on 'giving back' to local areas, emphasising that employee volunteering and charitable funding are not only a good way to support local initiatives, but also to improve employee morale and wellbeing and build trust and awareness of WPD at a local level.

4.115. WPD staff have always taken part in volunteering initiatives on an ad-hoc basis, with company match-funding available for money raised. Best practice reviews across a range of industries indicated that leading companies offered a range of formal and informal company volunteering opportunities, with many allocating paid leave for employee volunteering.

4.116. Therefore, in our first draft Business Plan, we included a commitment to encourage our staff to take paid leave to volunteer to support community projects. During this time, employees will have the opportunity to share their skills, provide support and mentorship within the community and improve their own wellbeing and self-confidence through acts of community service. Volunteering brings WPD's value of citizenship to life for employees, providing opportunities to be active in the communities we serve, while building a greater understanding of the vulnerable situations customers face. By participating in the scheme on a voluntary basis, staff can choose to support causes that are truly meaningful to them, creating strong relationships locally.

4.117. As part of the first draft Business Plan consultation, our stakeholders were asked the number of days we should allocate. In the consultation, we gave our customers five choices and the results are shown in figure SA-02.58.

Staff volunteering days level

What level of staff volunteering days should WPD have?
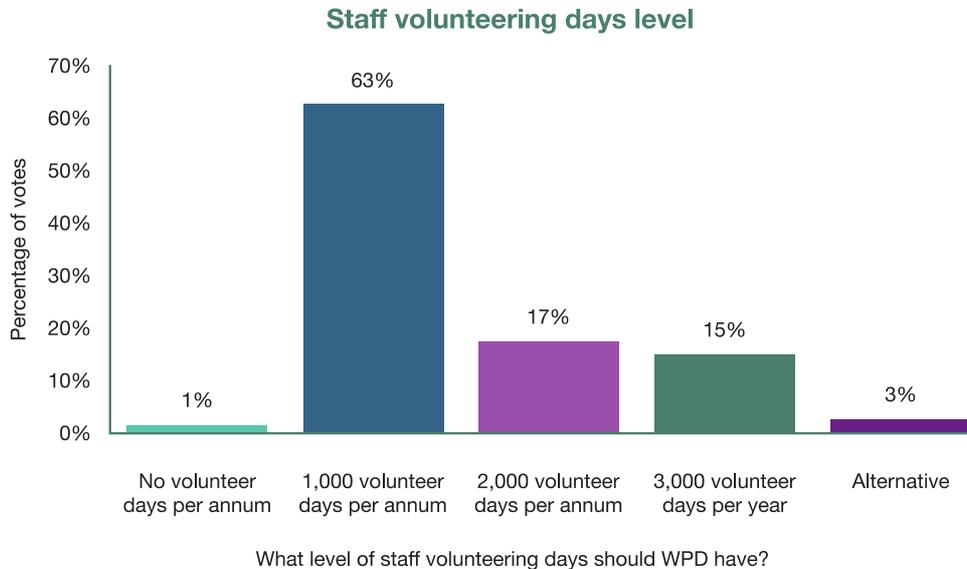
Figure SA-02.58 Stakeholder consultation feedback results – Staff volunteering days

4.118. Overwhelmingly, our stakeholders felt that 1,000 volunteer days per year was appropriate and we have adopted this commitment.

Provide transparent reporting (with clarity on returns and profits)

4.119. WPD is currently B rated on an Environmental, Social and Governance (ESG) which is the highest ranking of any energy company in the UK.

4.120. ESG criteria are a set of standards for company operations that can be used by socially conscious investors to screen potential investments, and by wider stakeholders as assurance of a company's ethical approach. The ESG Corporate Rating covers more than 5,000 international and national companies and addresses three key areas as shown in figure SA-02.59.

Environment
Climate Change Strategy, Eco-Efficiency, Energy Management, Environmental Impact of Product Portfolio, Environmental Management, Water Risk and Impact.

Social
Equal Opportunities, Freedom of Association, Health and Safety, Human Rights, Product Responsibility, Social Impact of Product Portfolio, Supply Chain Management, Taxes.

Governance
Business Ethics, Compliance, Independence of the Board, Remuneration, Shareholder Democracy, Shareholder Structure.

Figure SA-02.59 Environmental, Social and Governance assessment scope

- The environmental criteria are useful to assess WPD's performance on environmental issues.
- The social criteria consider how WPD manages relationships with customers, employees, suppliers and the wider communities in which it operates.
- The governance aspects deal with WPD's leadership, executive pay, audits, internal controls and shareholder rights.

4.121. To build upon this in RIIO-ED2, we will:

- Publish annual accounts in a simple, easy to understand format, setting out our total expenditure, the impact on customer bills and actual regulatory returns.
- Gain external audit and assurance of our annual accounts, including oversight from WPD's RIIO-ED2 Business Plan Delivery Challenge Group
- We will gain independent, annual ESG assessment and target a minimum of a 'B' rating every year.

Core Commitment 24	Deliver enduring, long-term support to our communities by publishing an updated WPD Social Contract and performance report every year and maintain our prime Environmental, Social and Governance (ESG) rating.

4.122. Our stakeholders wanted us to demonstrate that WPD is an ethical company and to ensure that we publish annual reports. Horizon scanning and engagement with end customers revealed that customers want to receive information in a format that is accessible and easy to understand, using recognised external accreditations where relevant to validate the efficacy of our approach.

4.123. In our first draft Business Plan, we proposed producing annual reports as part of our Social Contract and maintaining our ESG rating. In the consultation on the first draft of our Business Plan, our stakeholders were asked whether we should retain our prime ESG rating and the results are shown in figure SA-02.60.

Publish annual transparent reports

Publish annual reports in a simple, easy to understand format, setting out WPD's total expenditure, the impact on customer bills and actual regulatory returns
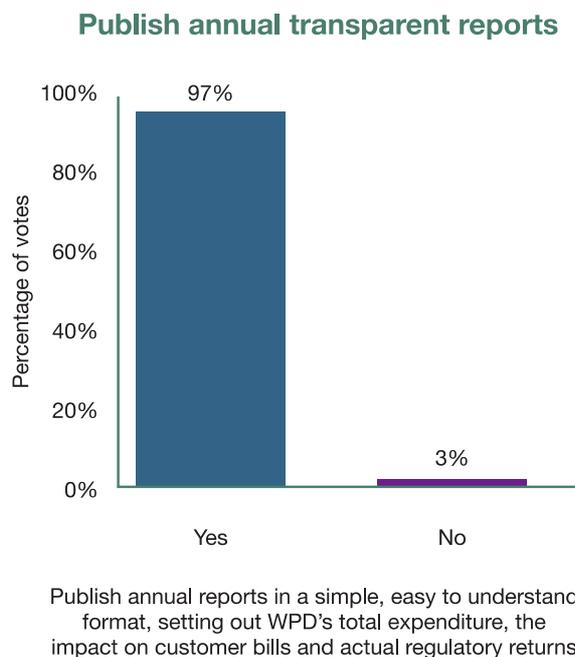
Figure SA-02.60 Stakeholder consultation feedback results – Publish transparent annual reports

4.124. Our stakeholders strongly supported both the production of transparent reporting and maintaining our prime ESG rating. As a result, our core commitment combines both of these aspects with clearer wording and commits us to annually update our Social Contract.

Demonstrate WPD is a diverse, responsible employer

4.125. We are committed to continuing our strong track record in creating a workplace in which employees from a diverse range of cultures and backgrounds feel 'at home'. A diverse workforce fuels innovation, improves staff satisfaction and wellbeing – and ultimately allows us to deliver a better service for our customers.

4.126. In RIIO-ED2, we will:

- Produce a robust and long term Diversity, Equity and Inclusion Plan which states our aims and performance in this area, with annual updates.
- Report and monitor our progress in diversity across key underrepresented sectors

4.127. In relation to our wider efforts to achieve greater diversity and inclusion in our workforce, in RIIO-ED2 we will:

- Maintain a safe, healthy and motivated workforce where WPD is a 'stand out' employer;
- Retain and upskill a specialised highly skilled, productive workforce;
- Attract new talent to the electricity sector;
- Improve the diversity, equity and inclusion of the workforce;
- Increase the STEM (science, technology, engineering and mathematics) pipeline;
- Play an active role regionally, and support communities to level-up in the recovery from Covid-19.

Evidence the legitimacy of our operations for the future

4.128. In relation to WPD's Executive and Board assurance, in RIIO-ED2 we will:

- Ensure full compliance with the Financial Reporting Council (the UK's audit regulator) Wates Principles for the corporate governance of large private companies.
- Adhere to six principles covering 1) purpose and leadership; 2) board composition; 3) director responsibilities; 4) opportunity and risk; 5) remuneration; and 6) stakeholder relationships and engagement.
- Regularly update WPD's standards of management and articles of association, subjecting them to external scrutiny and review.
- Train all WPD's directors and non-executive directors annually to ensure currency of skills and governance regarding responsibilities and leadership skills that are essential in today's evolving business.

4.129. To ensure the Social Contract remains relevant and fit for purpose, it will undergo an annual cycle of delivery, evaluation and improvement. To deliver this, we will:

- Achieve recognised external accreditations in line with the aims of the Social Contract
- Conduct annual stakeholder engagement events to seek feedback on WPD's RIIO-ED2 delivery performance, identify areas of emerging stakeholder interest and concern and track changes in customer expectations.
- Obtain expert scrutiny on our approach and performance
- Conduct social value research to capture the full extent of social value created by our initiatives and identify opportunities to increase efficiency and deliver even stronger benefits and outcomes for customers.
- Work in collaboration with the other DNOs and Gas Distribution Networks to continue to apply common definitions and methodologies to measure, record and report social value in a consistent way, enabling customers and stakeholders to make meaningful comparisons
- Engage with employees on the Social Contract through satisfaction surveys and employee communication channels
- Publish an annual report of actions and impact delivered by the Social Contract, as well as an Action Plan for the following year co-created with stakeholders

Play an active role regionally and support vulnerable customers

Core Commitment 25	**Build decarbonised communities and local energy schemes by providing £540,000 shareholder funded support per year to install solar PV on schools in areas of high economic deprivation.**

4.130. Our stakeholders wanted WPD to support the community, bolstering the local initiatives and good causes that provide essential local services. Particularly in light of Covid-19, stakeholders believed that WPD's Social Contract should deliver something that goes over and above to support our communities.

4.131. As a business, we are driven by our commitment to support the transition to a net zero economy. The uptake of low carbon technologies across our customer base plays an essential part in this. We also need to ensure that all communities are supported to navigate this rapidly changing landscape, so that everyone can participate in the transition to a greener, more sustainable energy system.

4.132. To deliver this, we will support schools in areas of high economic deprivation within our region to adopt solar PV at their locations, allowing them to harness renewable energy to reduce their bills. Alongside the provision of solar panels, we will leverage touchpoints with our schools and wider customers to deliver Science, Technology, Engineering and Maths education and outreach, promote our Priority Services Register and fuel poverty services and identify further social and environmental benefits to maximise the value of our interaction with communities.

4.133. This commitment was new in our Business Plan first submission. We tested it with stakeholders at our most recent workshops, which were attended by customers and customer representative groups, local authorities, community energy groups and charities from across our four licence areas. Of the stakeholders at the event, 70% 'agreed' or 'strongly agreed' that WPD was best placed to deliver this proposal. 80% of stakeholders at the event said that they 'agreed' or 'strongly agreed' that the proposal was acceptable, whereas only 5% of stakeholders said that the proposal was not acceptable.

4.134. Some stakeholders indicated that they would like to see WPD go further. We therefore refined the commitment to be shareholder-funded, ensuring communities receive the maximum value for no extra cost.

Customer service

What our stakeholders said about customer service

4.136. What our customers considered to be their top priorities for customer services is described in figures SA-02.61 and SA-02.62.

	Stakeholder Top Priorities	Core Commitments which Address this Priority
1	Customer service during power cuts is very important and remains a core priority for stakeholders.	Core Commitments 26, 27, 28 and 29
2	Timely, clear communication is considered vital for customers, especially during power cuts.	Core Commitments 26 27, 28 and 29
3	Stakeholders want WPD to offer a wide range of communication channels to suit the preferences of different customers. WPD must ensure it maintains the same quality of performance regardless of the method of contact a customer chooses.	Core Commitments 26, 27, 28 and 29
4	Improving information provided during planned power cuts, as well as unplanned incidents, is also very important to stakeholders.	Core Commitments 26, 27, 28 and 29

Figure SA-02.61 Stakeholder top priorities for customer service

What our customers tell us directly about customer service

	Direct feedback from customer contact
1	Regardless of the enquiry, customers expect polite, helpful, empathetic and caring staff who are well informed, empowered to help, clear in communication and able deliver on promises within the agreed timeline
2	Customers want their calls to be answered quickly, be provided with accurate and clear information combined with regular updates, especially during power cuts.
3	Customers tell us that they want to be able to choose how they contact us, but also expect the same level of service whether they choose to contact by phone or e-channels, this also applies to updates on enquiries
4	PSR customers value the extra support provided during power cuts.

Figure SA-02.62 Direct feedback - Stakeholder top priorities for customer service

4.137. Throughout the Business Plan process, stakeholders and customers have been clear that WPD must at least maintain the excellent level of customer service provided during RIIO-ED1, while at the same time expanding the choice of communication options available, allowing customers to be in control of how and when they consume the information available, and in the format they want. As we maintain existing levels of service and continue to measure, improve and adapt, we must remain sensitive to customer expectations, ensuring our internal delivery structures are flexible and respond to new and developing areas of service, such as the provision of advice and services for the installation of electric vehicle charging points and heat pumps in support of net zero carbon emissions.

4.138. We are committed to achieving these outcomes and to measuring the levels of service we are providing. We will use independent external assessment and internal contact with customers to determine how we are performing and where improvements can be made. We will also use these to rank our performance against industry peers as well as other customer service sectors.

Customer satisfaction

Core Commitment 26	Deliver exceptional service levels by achieving an overall average customer satisfaction of 93% or higher by the end of RIIO-ED2, with separate reporting for emerging technology customers.

4.139. We must monitor changes in customer expectations and demonstrate adaptability in our service provision throughout RIIO-ED2. For example, we expect long-term impacts of the Covid-19 pandemic may change customer expectations with regards to the timing of planned works activities, including an enduring increase in home working, while entirely new services may emerge as a result of the transition to a smart energy future.

4.140. As part of the first draft Business Plan consultation, our stakeholders were asked what level of customer satisfaction WPD should commit to. We understood from our stakeholders that we should at least maintain our current level of 89% average customer satisfaction so we opted for a 90% satisfaction level in the first draft Business Plan. In our consultation, we gave our customers three options– our current view of 90%, 91% or 92% customer satisfaction. Stakeholders also had the option to choose an alternative if these options did not provide the level of service that they wanted. The results are shown in figure SA-02.63.

Customer satisfaction level
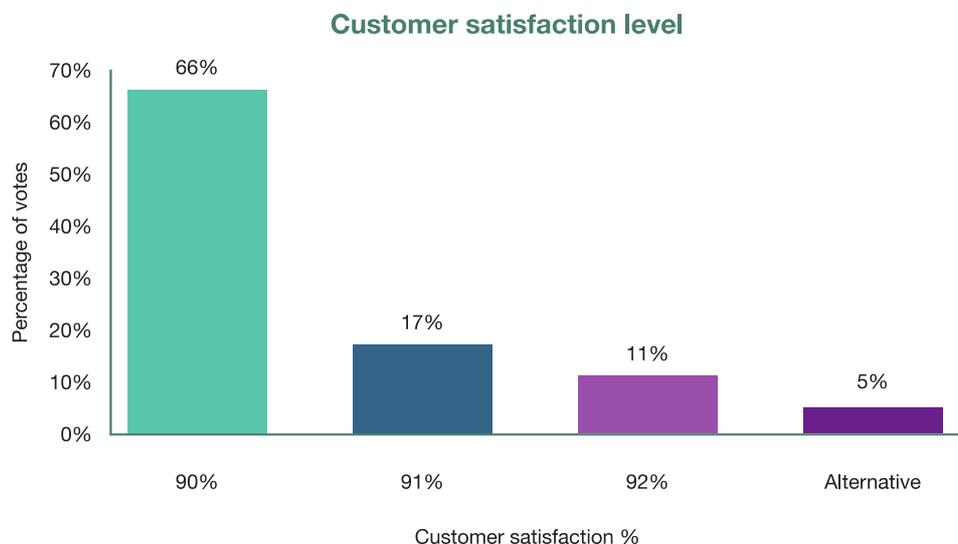
Figure SA-02.63 Stakeholder consultation feedback results – Customer satisfaction

4.141. Our stakeholders supported the 90% satisfaction level but felt that we should report separately our performance for emerging technology customers. As a result, our core commitment is now more ambitious and incorporates this stakeholder requirement.

4.142. From the outset of our engagement, stakeholders have consistently expressed the view that WPD's current customer satisfaction performance is excellent. Stakeholders have expressed the view that beyond a very high threshold of 90%, they see little distinction or merit between the improvements levels possible beyond this. The consensus has therefore been that while there should be absolutely no regression, even in exchange for a reduction in customer bills, any further improvement should be incremental.

4.143. As reviewed by the Research Subgroup of the Customer Engagement Group, in all stakeholder research on this topic, including deliberative focus groups and stated preference surveys, respondents were given key context about WPD's existing performance relative to other performers in the sector. In relation to the aspirational performance targets set by DNOs in their

Business Plans published in July 2021, some of which surpassed WPD's initial target. We sought to provide relevant context with customers as part of acceptability research in October 2021 to test whether a based on other DNO target we should increase our levels and this led to a 93% customer satisfaction level by the end of RIIO-ED2. Supplementary Annex: SA-02a – Our commitments – Justification analysis provides further details on this commitment.

4.144. We will improve our average customer satisfaction to 9.3 out of 10 (93%) or higher by the end of RIIO-ED2 – delivering leading performance in Ofgem's Broad Measure of Customer Satisfaction.

4.145. To help us maintain and improve, we will use the feedback to target some key areas important to our customers:

- Maintain our existing excellent speed of response when customers contact us.
- Continue to refine our proactive texting and notification of customers within minutes of the interruption occurring.
- Ensure we provide the same relevant information on unplanned interruptions across all our traditional and digital social media platforms, improving website provision through the fault map, ability to self-serve and log enquiries and improving online access to fault detail so the customer can choose how they access the information they need.
- Make better use of technology and systems to improve the information flow from direct staff working on the incident directly through to the customer.
- Improve our focus on providing estimated time of arrival and estimated restoration times to keep our customers updated with the latest information we have, and proactively communicate that across all channels.
- We are currently implementing an advanced notification texting service giving customers notice of planned interruptions well in advance of the scheduled date and time. This text will be followed up with our new enhanced planned interruption letter giving far more detail regarding the work being carried out and providing contact details for the team involved. This will be followed by a reminder text sent the day prior to the interruption going ahead.
- We have improved our telephony platform and our planned work website page, to keep customers updated during the interruption itself, should any last minute changes or delays occur. We can now bulk text the customers affected by the planned interruption to update them, and this information is also displayed on our new planned work website page. We will also offer our customers the ability to register for live automatic updates on the day of the interruption.
- We will ensure our customers have a choice of how they would like to apply for a connection or log a general enquiry, providing the same level of service on our new digital platforms as we provide on our traditional telephony service.
- We have recently made changes to our connections delivery of work systems, making them more customer interactive and informative along each stage of the process, putting the customer in control of the information they need.
- We will continue to work directly with customers to regularly check satisfaction on Connections and General Enquiries.

4.146. Throughout our engagement process, stakeholders have consistently flagged the importance of WPD taking steps to improve service for Worst Served Customers – defined as those experiencing significantly above-average numbers of 12 or more in a three year period. WPD has therefore made a Business Plan core commitment to virtually eliminate the number of Worst Served Customers in RIIO-ED2 (based on the current RIIO-ED1 definition), details of which can be found in the 'Maintaining a safe and resilient network' section below.

4.147. As part of our work with stakeholders to arrive at our overall customer service commitments, it was essential to interrogate our performance to ensure that WPD's excellent overall satisfaction levels were not masking small, but significant pockets of dissatisfied customers, such as from WSC. In 2021, in response to a challenge from the Customer Engagement Group, we therefore conducted a research exercise to ascertain two things: what change in network performance WSCs experience on the completion of a network improvement scheme; and what is the

customer satisfaction specifically for WSC. This research revealed that completed schemes delivered on average a 400% reduction in faults, thus ensuring that these customers subsequently received a level service in line with WPD's average. In addition, we found that despite these customers receiving a worse network performance than average, customer satisfaction for WSC was only 2% lower, as a result of the high quality of WPD's customer service throughout the power cut, including provision of information and regular updates. After improvement works were completed, satisfaction rose to be in line with WPD's overall customer satisfaction levels.

4.148. Finally, customer complaints specifically from WSC were low prior to works being carried out, and fell further to be in line with the average per WPD customer after improvement schemes had been completed. Throughout RIIO-ED2, we will continue to monitor customer satisfaction specifically for WPD customers on our poorest performing circuits, to ensure action is taken and high customer satisfaction is maintained.

Customer Service Excellence Standard and British Standard for Inclusive Services

4.149. As part of the Business Plan consultation, we asked our stakeholders whether they supported this commitment. The results are shown in figure SA-02.64.

Compliance with Customer Service Excellence every year

Achieve full compliance with the Customer Service Excellence standard every year
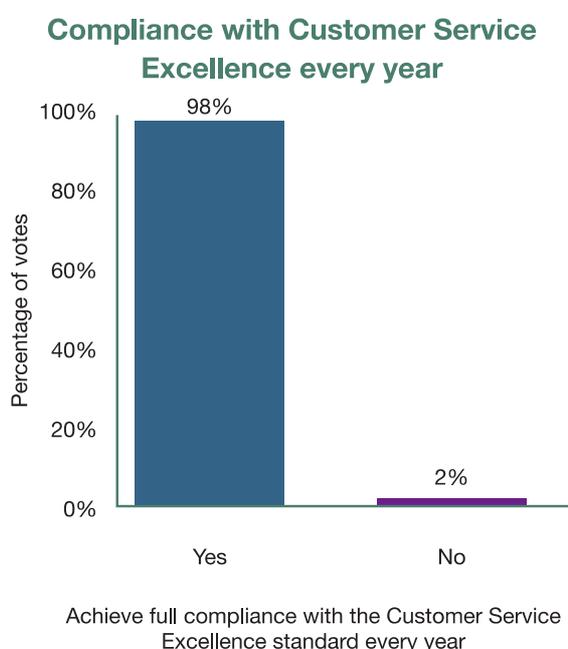
Figure SA-02.64 Stakeholder consultation feedback results – Achieving Customer Service Excellence

4.150. We will achieve full compliance with the Customer Service Excellence Standard and undergo rigorous external assessment and benchmarking every year to evaluate our performance.

- External assessment and evaluation of how WPD performs in relation to accessibility, customer service and stakeholder engagement is crucial to ensure we continue to improve and provide the best possible service for customers.
- The Customer Service Excellence (CSE) Standard provides a level of independent scrutiny and perspective that goes beyond simple validation as outlined in 4.10. This challenging and honest feedback is fundamental to the process of identifying service improvements and innovations.

4.151. Customers and stakeholders tell us that WPD must provide a wide range of inclusive customer contact channels and accessibility tools, paying particular attention to vulnerable customers and those in need of additional support. To ensure we comply with our customer expectations, WPD commits to achieving full compliance with the British Standard for Inclusive Service Provision every year.

4.152. The BS18477 standard ensures WPD makes a serious and auditable commitment to providing services that are fair and accessible to every customer. The audit process is rigorous and evidence based, ranging from the review of documented evidence to the live observation and monitoring of staff while performing their role. The sub categories covered are –

- Board, CEO, senior management to ensure customer-facing staff are committed to inclusive service;
- Policies, processes and procedures in place as required by the standard, checking design, inclusiveness and flexibility;
- Planning correctly to identify potential customer vulnerability and response;
- Inclusive communication;
- Review and monitoring of the efficacy of our provision for vulnerable customers;
- Actions feedback and improvement;
- Training and awareness.

4.153. WPD ensures inclusive provision by providing its vulnerable customers with a choice of communication most suitable to their need:

- Recite Me
- NGT Lite
- Text Relay
- TextPhone Minicom
- Webchat
- Interpreter now
- We hold the Action on Hearing Loss 'Louder than Words' accreditation
- Our website is AbilityNet accredited
- Dedicated free phone telephone line for immediate connection to an advisor

4.154. WPD commits to continuous monitoring of the needs of our vulnerable customers, and we will implement new and innovative platforms as they become available.

Telephone response

Core Commitment 27	Ensure a speedy telephone response to customers by answering calls within an average of four seconds and maintain an abandoned call rate of less than 1%, within our UK-based, in-region Contact Centres.

4.155. As part of the Business Plan consultation, we asked our stakeholders whether they supported this core commitment. The results are shown in figure SA-02.65.

Call Centre response time
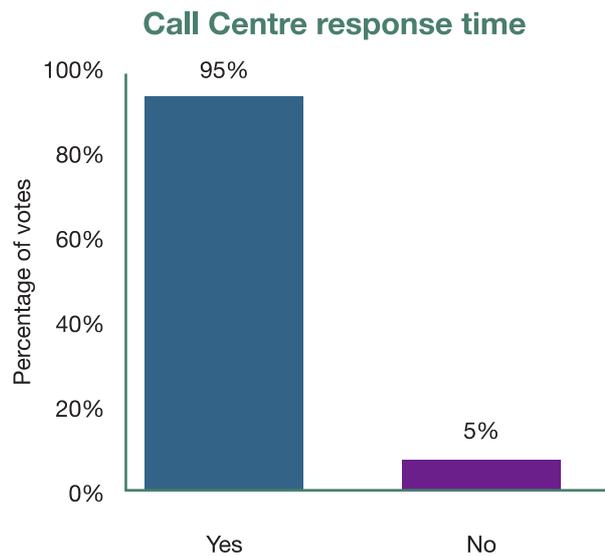
Answer calls within an average of four seconds and maintain an abandoned call rate of less than 1%, within our UK-based* in-region Contact Centres

Figure SA-02.65 Stakeholder consultation feedback results – Call answering within an average of four seconds

4.156. Customers and stakeholders tell us that, although newer forms of contact such as social media are useful and needed, when it comes to power cuts, emergencies and safety related issues, the majority of customers still prefer to call us. To ensure we meet customer expectations, we will continue to deliver an efficient high quality service to customers through highly-trained customer service advisers in our own, UK, in-region Contact Centres, ensure customers can talk to us in-person whenever they need to.

4.157. Customers and stakeholders tell us that being able to speak to an advisor in person is still a high priority and that long waiting times to be answered or failure to get through can be very frustrating. WPD's in-house telephony platform prevents any calls from being 'dead ended', and means that customers who choose to speak to an adviser have their call answered in an average time of four seconds. As a result, less than 1% of the calls we take are abandoned. . To ensure we maintain our excellent levels of customer service, and support our vulnerable customers, including being responsive to future customer expectations, we will continue to operate regionally based, in-house Contact Centres with good staffing levels to provide a high quality service and fast response. WPD's business is customer satisfaction and we have a strong track record of answering calls quickly. Both stakeholders and customers believe this to be the correct level of performance and we will continue to uphold this.

4.158. When experiencing exceptionally high call volumes, we can increase the number of advisers available by using trained staff from across the company to maintain service levels and quality of

response. We also provide facilities for Contact Centre and other trained staff to take calls at home, in the event of bad weather. WPD's home working capability ensures we can increase the number of advisers quickly and at short notice, not just for forecast events but also for sudden system emergencies. The combination of internal departmental support and homeworking, allows WPD's Contact Centre to deliver the same level of customer service in storm situations as we would during the normal working conditions.

4.159. Abandoned calls arise when customers decide to hang up before they speak to an advisor, however this is something we want to avoid. This typically occurs when customers are being kept on hold for a long time. WPD's policy of answering calls quickly results in very few abandoned calls to enable to have in-person conversation that our stakeholders want.

4.160. Stakeholders and customers expect us to run, maintain and operate a safe, reliable network and answering customer calls quickly is key to this commitment. On occasions we rely on our customers to tell us that their power has gone off, or when the network may be compromised in terms of safety. In order to restore supplies quickly and efficiently and respond to any safety related concerns, customers will continue to be answered quickly so that we can use the information they provide, to remove any safety issues or reduce the length of time that customers are without power.

Social media – Meeting the challenge of omni-channel customer service

Core Commitment 28	Ensure a speedy social media response to customers by replying to enquiries within an average of five minutes and Webchats in an average of less than a minute, 24 hours a day.

4.161. As part of the Business Plan consultation, our stakeholders were asked what level of response time to social media enquiries they would want WPD to commit to. Our stakeholders highlighted the importance of social media as a means of communication and the need for it to be quick. Our current level of social media average speed of response is 6-7 minutes. Based on the feedback from our stakeholders we felt we could improve on the social media response so we opted for a 90% satisfaction level in the first draft Business Plan. As part of the consultation, we provided three options for social media response times – our current view of five minutes, and alternative options of four minutes and three minutes. Stakeholders also had the option to choose an alternative if they these options did not provide the level of service that they wanted. The results are shown in figure SA-02.66.

Social media response time
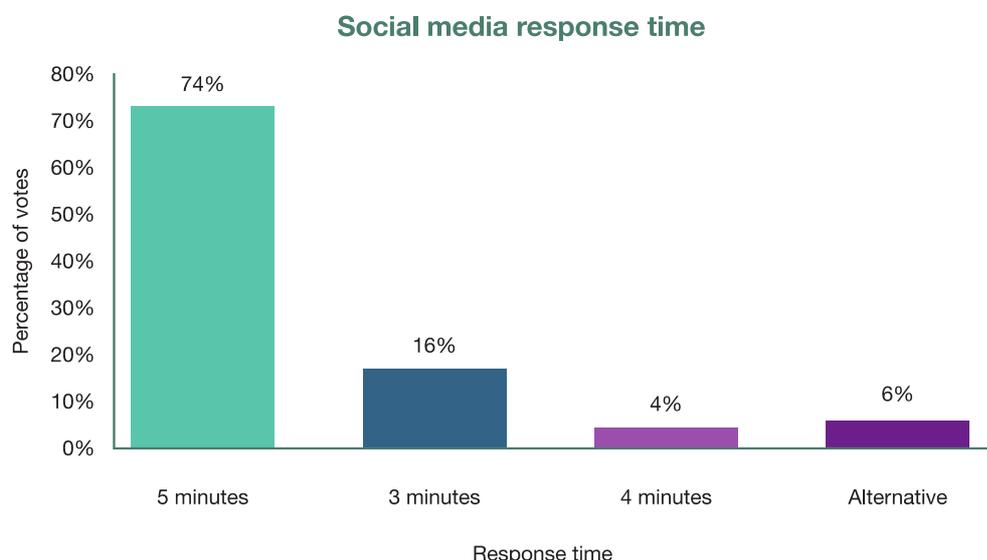
Figure SA-02.66 Stakeholder consultation feedback results – Social media response times

4.162. As part of our consultation, our stakeholders supported the five minute response time to social media enquiries but felt we should have a target for Webchat as well. We have responded to this feedback and the commitment now includes an average speed of response of one minute for Webchat.

4.163. Direct feedback from our customers and stakeholders tells us clearly that customers want to use alternative means of communication, such as social media, and want the same level of service and availability of information regardless of which channel they choose. Omni-channel customer service integrates telephony, text, social media, email and Webchat, to provide the customer with a choice of channel suitable to their need at a time of their choosing.

4.164. WPD has responded by utilising these new channels of communication, ensuring the same quality of service and efficient response times. This now includes: Twitter, Facebook, WPD 'report a power cut' website, WPD Power Cut Reporter app, text message, website info email, WhatsApp and Webchat. We respond to all social media enquiries in an average time of 7 minutes, and to Webchat within one minute on average. When responding to our customers' feedback in creating our social media delivery team, we used our 'First Time, Every Time' ethos as the guide on which to base our performance. We will ensure that customers wishing to contact us via social media channels get the same comparable response performance as those customers using traditional telephony channels. It is essential that no customer gets left behind.

4.165. Stakeholder feedback also suggests that WPD should look at research to learn more about customers' preferred communication channels. Recent UK, US and European studies have found that customer expectations in terms of response varies depending on which channel they use. Although Webchat is a digital channel, customers regard this as the digital version of a phone call and would use this to report or discuss similar issues; therefore, customers expect an immediate response. Recent studies show the average speed of response for Webchat is two minutes 40 seconds, with the fastest individual response time at seven seconds and the longest individual response time at nine minutes. WPD's average speed of response on average is less than one minute, which places us in the top performing category of major companies and ensures we continue to lead in providing the same quality of service for our customers across both phone and digital chat.

4.166. Stakeholder and customer feedback suggests that our current performance levels across our omni-channel platforms are acceptable, but could be extended to ensure that customers can access the same information on whichever channel they choose, ensuring no group of customers is left behind. We will continue to expand the use of social media as a means of contact, customer interaction and notification, ensuring that response times and service delivery are of an exceptional quality.

4.167. We will also make sure that any notifications we wish to give or send to our customers will be across all channels, not just on social media. This will ensure that any customer without access to social media or the new digital offering will have the same information given to them on the more traditional channels of text, telephone and email. This will ensure all our customers are kept informed in the way they prefer. It is important to WPD that we respond to customer and stakeholder feedback and improve our digital customer experience, but it is also equally important to us that as we make efforts to digitalise customer service for those customers who want it. We will not leave the non-digitally native or vulnerable behind.

4.168. We will continue to identify where improvements can be made as we integrate our communication channels, focusing on customer driven and proactive notification contact, ensuring we maintain our response times and improve proactive automated messaging during power cuts.

Communications during power cuts

Core Commitment 29	Provide greater insight on our planned work activities and interruptions on our network by creating an online viewer.

4.169. As part of the Business Plan consultation, our stakeholders were asked whether they supported this core commitment. The results are shown in figure SA-02.67.

Planned work online viewer
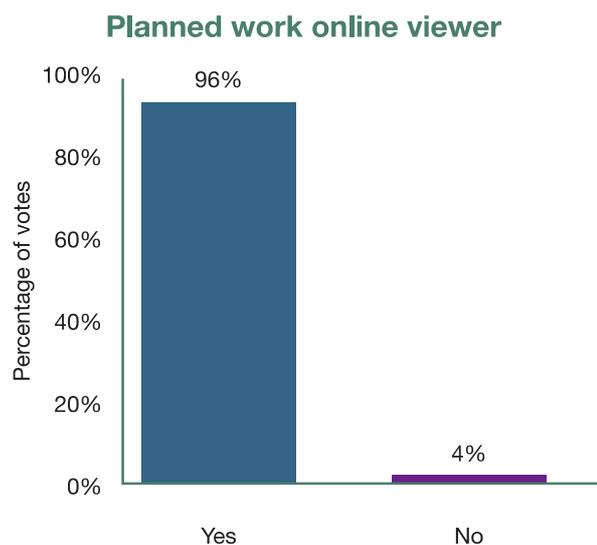
Provide greater insight on the planned work activity and interruptions on the network by creating an online viewer for our customers and stakeholders

Figure SA-02.67 Stakeholder consultation feedback results – Planned Work Online Viewer support

4.170. Stakeholders and our customers tell us that customer service is most critical during power outages, and that our current level of excellent performance is acceptable, but should be extended to include greater visibility of information on planned and unplanned outages across all chosen communication channels.

4.171. Unplanned outages - When we speak with customers during unplanned outages, their direct feedback in terms of questions and expectations can be easily summarised as follows:

- Do you know my power has gone off?

WPD will increase the use of proactive automatic texting and calling at the same time providing the same information across our omni-channel platforms to inform customers when we are aware of unplanned outages on our network.
We will continue to raise awareness of 105 as the single point of contact during outages.

- When will my supply be restored?

We will provide estimated restoration times and clear, concise progress updates on every unplanned outage. We will utilise existing technology to provide customers with estimated on site arrival times for our engineers. We will also provide accurate information on all network outages using our online power cut map and the WPD smart device apps, enabling customers to access information for themselves as well as setting up and receiving bespoke alerts.
- What was the reason for the supply interruption?

As part of our update process, we will, where known, provide our customers with the cause of the interruption and obtain feedback for future learning opportunities and improvement.

Planned outages – Stakeholders tell us that although they are aware that customers are notified well in advance of planned interruptions, they would like to be provided with greater insight on the planned work activity on our website. They also said they would like to see more proactive notification such as text. We will provide clear, concise information on all planned network outages using our online power cut map and the WPD smart device apps, enabling customers to access information for themselves as well as developing new reminder and update alerts via text.

Rapid resolution of customer complaints

Core Commitment 30	When things go wrong ensure we put things right very quickly, by resolving at least 90% of complaints within one day and 99% of complaints within 25 days.

4.172. As part of the first Business Plan consultation, our stakeholders were asked whether they supported this core commitment. The results are shown in figure SA-02.68.

Complaints resolution

Resolve at least 90% of complaints within one day
and resolve 99% of complaints within 31 days
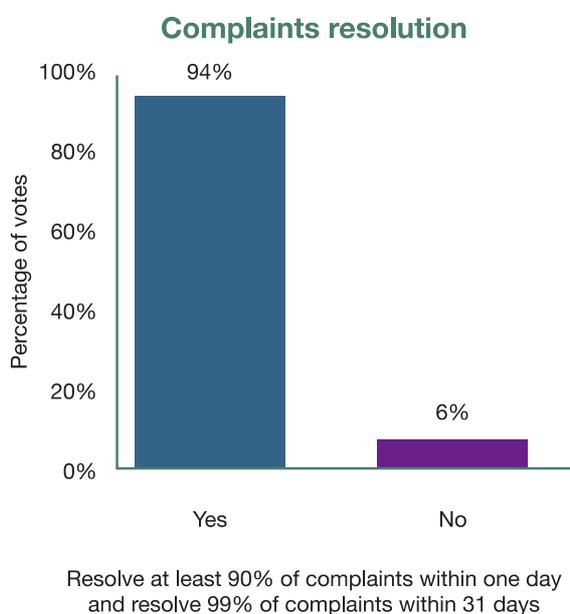
Figure SA-02.68 Stakeholder consultation feedback results – Complaints Resolution

4.173. As part of our second draft Business Plan consultation, our stakeholders felt that 99% complaint resolution within 31 days was not challenging enough and that we should be more ambitious in this area. In response to this, we amended the original commitment to state that we would resolve 99% of all complaints within 25 days.

4.174. While WPD strives to deliver excellent customer service at all times, there are occasions when outcomes fall short of what our customers expect. In these instances, it is very important that we act swiftly to resolve the matter to the customers' satisfaction and that we are able to learn from these instances to avoid any future repetition.

4.175. Complaints are measured as part of Ofgem's BCMS and are divided into four categories of performance:

- complaints resolved on day one;
- complaints remaining unresolved after 31 days;

- repeat complaints;
- Ombudsman referrals.

4.176. WPD's track record during RIIO-ED1 has been strong in this area, outperforming our RIIO-ED1 target for resolving complaints within one day. To maintain this performance – an achievement that is important to our stakeholders - we must not stand still. That is why we are committed to going further than the Ofgem BCMS standards and continuing to deliver industry-leading performance for our customers.

Complaint resolution

4.177. We are committed to:

- Measure the number of complaints resolutions agreed with customers within one hour
- Our stakeholders want us to continue to deliver industry-leading performance, setting ourselves clear targets which can be used by our customers to hold us to account.
- We have set ourselves a target above the standards set by the BCMS. This ambitious target is part of our commitment to deliver leading performance and to develop a better understanding of our performance when things do not go to plan.
- Customers can now get in touch using a range of communication channels. This is an opportunity for us to improve our response times, particularly for customers who do not request a telephone conversation but want to know their issue is being dealt with as a matter of urgency.
- We will commit to resolve at least 90% of complaints received to the customer's satisfaction within one day.
- We will commit to resolve 99% of complaints received to the customer's satisfaction within 25 days.
- Make sure no complaints are referred to the Ombudsman.
- Where customers are not satisfied with the way a DNO has handled their complaint, they are able to refer it to the Energy Ombudsman. WPD will commit to providing satisfactory resolution to every customer complaint so that no customer needs to refer his/her complaint to the Ombudsman for investigation.

Guaranteed Standards of Performance awareness

4.178. Guaranteed Standards of Performance (GSOPs) set out the minimum service standards that DNOs must meet under Ofgem's regulatory framework. Where a standard is not met, a payment must be made to the customer. GSOPs cover the provision of connections, supply interruptions and response to problems such as voltage complaints.

4.179. Where WPD is aware of a failure, a payment will be made without the need for a customer to make a claim. However, stakeholders are not always aware of the framework of GSOPs or how and when they may apply to the services they receive.

4.180. We are committed to:

- Deliver regular communications to customers on GSOPs to increase awareness and knowledge.
- We use a wide range of communication channels to contact each of our 8 million customers. We will use our online channels to provide GSOP information to customers on our website, social media and using our smart device apps. We will also provide information and guidance on GSOPs to every customer in our Power for Life customer newsletter.

Connecting to our network

4.181. Customers seeking electricity connections expect excellent customer service. They want a fast and efficient connections service from the point of making their initial application, through to the final connection and energisation. But they also want information at pre-application stage in order to make informed decisions, regular contact throughout the construction process and feedback post connection.

4.182. The growth of low carbon technologies (LCTs) throughout the RIIO-ED2 period and beyond presents us with new challenges. Net zero is a legally binding target for the UK and we need to ensure our network is able to support the predicted increase in LCT products including electric vehicles, battery storage and heat pumps. Our work to connect LCT demands to complement the generation already connected is central to the achievement of that target.

4.183. The advent of a smart grid and introduction of flexible connection solutions (such as Active Network Management) means we no longer need to rely on only giving a customer a conventional connection offer that includes network reinforcement, invariably involving significant cost and delays. From the outset, customers need to know there are alternatives available to them. The alternatives need to be clearly explained so they can make an informed choice.

4.184. Customers wishing to build business models for the connection of generation or energy storage solutions also need to know how secure their supply will be in terms of network constraints and potential levels of curtailment. The proliferation of Distributed Energy Resource (DER) connections and the complex configuration of the distribution network means that they may be subject to a number of planned outages over the year. It is important that the number and timing of these outages is communicated well in advance so that DER customers can factor these interruptions in to their plans.

4.185. The continued roll out of Competition in Connections has seen the level of non-contestable services (that may only be provided by the DNO) reduce over RIIO-ED1. Independent Connection Providers (ICPs) can now determine the point of connection to the DNO's network using information made available through online tools. They can also approve their own designs and undertake work such as switching and jointing on the DNO network. RIIO-ED2 will see the advent of further competition in distribution.

4.186. There are now 13 Independent Distribution Network Operators (IDNOs) operating across Great Britain who have captured a significant share of the connections market, using ICPs to provide the asset infrastructure. This increase in market share demonstrates that competition is effective and customers do have a choice. It is important that we continue to work with IDNOs and ICPs to ensure that both the initial customer for connection (usually the developer) and the end user receive the best outcome in terms of customer service and value.

Our commitments for RIIO-ED1

4.187. During RIIO-ED1, we committed to improve customer service on a number of fronts. Our overarching strategic intent is to:

- Provide a faster and more efficient connections service
- Improve communications with customers
- Enhance engagement with major customers
- Deliver on Guaranteed Standards of Performance
- Facilitate the competitive market

4.188. We have worked hard on all five commitment areas and sought to deliver real improvements in customer service. We have achieved a high standard for customer service with a connections customer satisfaction score averaging 8.87 out of 10.

A faster and more efficient connections service

4.189. As part of our commitment to provide a faster connections service, we set out to reduce the overall time taken to deliver a connection by 20%.

4.190. We achieved Ofgem's targets for 'time to quote' and 'time to connect' for single domestic connections and small commercial connections and reduced timescales to connect across all other market segments. While we remain focused on overall performance and meeting 'time to connect' timescales, we have also tried to improve the customer experience by ensuring simplicity and transparency at all stages of the connections process.

4.191. A lot of work has been done to improve 'bottle-necks' in connections queues by refining the interactive connections queues process. In accordance with ENA guidelines for fair and effective management of DNO connection queues, we have also developed a system of connection offer milestones that allow us to ask customers to evidence that they are progressing schemes in a timely manner. The utilisation of milestones is intended to enable us to release otherwise committed capacity and offer it to other customers thus helping WPD to meet its licence obligation to permit the development, maintenance and operation of an efficient, co-ordinated, and economical system for the distribution of electricity.

4.192. In RIIO-ED1, we revised our policy to manage capacity allocation and reservation for large multi-connection developments. This change means we can assure developers whose schemes will build out over a number of years that capacity will be available for them when they need it. It also ensures that customers behind them in the connections queue are not disadvantaged by delays and do not have to pay for reinforcement because of a shortage of capacity.

4.193. We believe this change has improved the process and provided clarity for connecting customers. We will continue to monitor the success of the change throughout RIIO-ED2 and refine it if necessary.

Improve communications with customers

4.194. We have worked hard to make improvements to how we communicate with our customers, whether by enabling face-to-face discussions, or through the provision of online facilities to help the customer track progress of their scheme. We know that communication is key to delivering connections in a timely and efficient manner.

4.195. As part of our commitment to improving communication, we have developed our online guidance and application process. Work is currently being undertaken to improve the layout of our website which will help our customers to navigate the connections pages more easily and find the information they need quickly. We have also built upon and improved current connections guidance to ensure it is comprehensive and remains relevant. Our suite of guidance documents has grown steadily to ensure that new policies and processes are covered.

4.196. The creation of our Energy Data Hub enables easy access to all of the existing data we currently share with the industry, regulator and our customers. By putting all the data in one place, we hope to unlock the value from the data within the energy system, drive innovation in new products, services and businesses and produce more efficient, cost effective systems that work for consumers and realise the benefits of clean energy.

4.197. The hub provides:

- System and network data related to our network assets and system operation.
- Data relating to connection and use of system charges.
- Information relating to how we are enabling Low Carbon Technologies (LCTs).
- Strategic information relating to smarter systems and how we are investing to meet our customers' future needs.

Enhance engagement with major customers

4.198. Our programme of stakeholder engagement plays a vital part in ensuring we remain in step with our customers' needs and that we make continual improvements to connections services. The Incentive on Connections Engagement (ICE) has proven invaluable in stimulating conversations with our connections stakeholders and driving improvements and, since its inception in 2015, we have delivered on numerous commitments.

4.199. In RIIO-ED2, ICE will be superseded by the requirement to have a Connections Strategy in place that sets out our plan for delivering improved connections services. We will, however, continue to employ and build upon our current engagement approach as it has a proven track record for delivering results.

Deliver our Guaranteed Standards of Performance

4.200. We have always aimed for zero Guaranteed Standards of Performance (GSOP) connections failures. This is an ambitious but laudable target as we provide approximately 70,000 budget estimates and quotations and 30,000 connections every year

4.201. Our record speaks for itself and is a credit to the frontline staff who strive to maintain such high standards. As an example, in 2020/2021, we had only 23 failures.

Facilitate a competitive market

4.202. The range of contestable connections work which can be undertaken by third party providers is growing. During RIIO-ED1, we have committed both to improving customer awareness of third party providers and to extending the types of work that can be undertaken by these providers.

4.203. Our stakeholders challenged us to make improvements to our self-service processes. In response, we rolled out policies covering simplified methods of determining the point of connection to our network at HV. We also facilitated a new HV self-connection option allowing ICPs to connect on discrete sections of our network under their own distribution safety rules, policies and procedures.

4.204. The availability of quality information to improve efficiencies has been high on the ICPs' agenda. We have addressed this by developing the search facility and layout of technical information through the web facility, with no requirement to register.

Stakeholder engagement

4.205. Stakeholder engagement is key to understanding our customers' connection needs. We have an engagement strategy that allows us to identify relevant stakeholders, understand their needs and then use their feedback to improve our services. We always engage with a purpose and use a variety of mechanisms to obtain feedback which include expert panels, workshops and surveys.

4.206. Our Customer Connections Steering Group (CCSG) has proved vital for communication with expert stakeholders. We host three CCSG workshops a year which are attended by directors and senior management, giving an opportunity for direct feedback and interaction. Members have extensive knowledge and experience of our connections activity which enables the group to discuss potential improvements in detail and with authority. Above all, the enables us to propose ideas to the members and gain their insight. Two way interactions are an integral part of the process.

4.207. The Distributed Generation Owner and Operator (DGOO) Forum was established in 2016. Its aim was to create a group of expert stakeholders to discuss issues relating to network outages and constraints for large (MW-scale) generators. As a result of extensive ongoing collaboration, the group has delivered a number of effective improvements including the Generation Portal which provides information on both historic and planned outages.

4.208. Focused workshops also feature heavily in our engagement strategy. We have targeted specific stakeholders including DER, ICPs/IDNOs, local authorities and Local Enterprise Partnerships (LEPs). Our engagement with local authorities has helped us to understand each other's needs, particularly the need for investment and preparations ahead of the increase in LCTs.

4.209. We also encourage customers to engage on a one-to-one basis through a growing number of connections surgeries. According to our stakeholders, these one-to-one sessions are extremely useful, particularly when preparing to make an application as this allows them to discuss connections options with our design team.

4.210. Our bespoke stakeholder engagement website www.yourpowerfuture.co.uk was launched in 2019. This acts as a central focus point for customers to access information and understand how influence our plans and strategy. The website covers all areas of engagement including our engagement groups, customer panel, and workshops and events.

4.211. Because not everyone is able to attend our events or workshops, we have created an online Consultation Zone. Here, customers can read reports and provide feedback online. They can register on the website, stating the topics they are interested in, and are given the option to receive relevant information and updates.

Setting the scene for RIIO-ED2

4.212. Ofgem has said that it expects consumers to be served by a local grid during RIIO-ED2 – an ambition that supports our own net zero targets.

4.213. Under RIIO-ED1, we set out clear strategies outlining how we intended to deal with the increase in numbers of electric vehicles and heat pumps. These strategies were built on robust research, innovation projects and collaboration with interested parties. We will continue this strong focus in RIIO-ED2 to ensure our electricity infrastructure can sustain the growth in demand, whatever the take up.

4.214. New customers must be able to connect to the network quickly, efficiently and at least cost. This remains a high priority for WPD - and one we will continue to work hard to achieve, both independently and with the industry, using a range of conventional means, flexible services and other innovative solutions.

4.215. We remain committed to Competition in Connections in RIIO-ED2 and will continue to innovate where there is potential to improve the process, working alongside ICPs and IDNOs.

4.216. Ofgem has outlined its plans to introduce early competition for distribution networks. While we are waiting to see the detail of the proposals, we will continue to work with the industry to find the best solution for all.

4.217. Excellent customer service is key to a positive relationship with our connections customers. We will continue to engage with our stakeholders and build on our long standing relationship with them to understand their priorities and create further initiatives to improve customer service.

4.218. Stakeholder engagement will continue to be at the core of our strategy as we develop robust plans for improving connections services. We will continue to interact with connection stakeholders though workshops, seminars, expert panels, wider surveys and increasingly through more innovative channels. We will target a range of customers to ensure our proposed actions are justified and well thought out.

4.219. We will continue our transition to DSO throughout RIIO-ED2 as we support changing energy use by customers and a more dynamic network. As flexibility services mature, we will acquire more data through smart metering and use this to make informed network decisions. This will help our strategy to evolve and ensure our network remains capable of accommodating sustained generation and demand growth as we approach 2028.

4.220. Work carried out under the Significant Code Review to determine how electricity networks can be used efficiently and flexibly, to allow consumers to benefit from new technologies and services while avoiding unnecessary costs on energy bills, will have a profound impact on connections delivery. We are ready to react to all specific outcomes that arise from this work.

4.221. Ofgem has yet to reach a decision on how to move to a 'shallower' connection charging boundary but we know that any change will mean revising our policies and processes to ensure connections customers are aware of the implications and that there is a smooth transition to the new regime. We will ensure these processes are robust enough to meet the potential increase in connections applications, as a result of the change to the connections boundary.

4.222. The work of the Access Charging Group has gathered momentum in the lead up to RIIO-ED2 to ensure shortlisted options are explored fully. A lot of work has been done to examine access rights, particularly around distribution users' access to the transmission network and options for sharing access rights. We will continue to support its development and ensure that our systems and processes are in place to enable a smooth transition and implementation.

Key activities and core commitments for RIIO-ED2

Connections to support net zero

4.223. We have a critical role to play in ensuring our network can support the growth of low carbon technologies (LCTs). This new period sees a shift in focus from low carbon generation connection towards the growth of LCT products including electric vehicles, battery storage and heat pumps. Net zero is a legally binding target for the UK and our work to connect LCT demands to complement the generation already connected is central to the achievement of that target.

4.224. The government has supported net zero growth through The Carbon Plan and more recently the Ten Point Plan and the Energy White Paper. Our role in decarbonisation is simple, we need to make sure our network can connect LCTs and generation with speed and efficiency. We will use our experiences in RIIO-ED1 and our innovation projects to achieve this, building on our strong foundations.

4.225. During the RIIO-ED1 period, we transformed our network to accept low carbon generation. A mixture of flexible connection offers, and a modelling approach based more on energy volumes than maximum demands helped us connect over 34GW of generation on a network conventionally designed for 14GW of demand.

4.226. In RIIO-ED2, we will see the focus shift from large scale renewable generation connections and towards high volumes of smaller LCT connections, such as community solar farms. Where we already seen connection activity in generation at capacities around 5,000kW, the shift will be towards the volume connection of electric vehicles and heat pumps with capacities in multiples of 7kW. While the concept of connections and customers service is the same, the volumes will see us redesigning to our business model in response.

4.227. Government figures forecast targets of 600,000 heat pump connections per year in the UK by the end of RIIO-ED2. In addition, all new cars will be electrified, leading to around 1,000,000 new EV connections every year. This means that we could see as many as 400,000 new connections per year, or 1,600 for each working day. These levels trigger an automated approach to provide a quality service to our customers.

4.228. An automated approach flows through to how flexibility might be realised on our domestic networks. While we will operate and schedule larger demands and generation on our higher voltage networks, the low voltage network cannot be micro-managed by us in the same way. We see flexibility being delivered through supplier tariff signals and aggregation offers. We do not expect to interact directly with our individual domestic customers.

4.229. We have already experienced automated Eco Homes in work completed in South Wales. We expect this area to grow with new players in the home energy management arena. Management of whole housing estates as pseudo power plants is also an area where we expect growth, with benefits for the connected customers and the network operator alike.

4.230. We will use the innovation tools that we developed in RIIO-ED1 to power this change. Flexibility is now embedded in our system operation plans innovation. Research in Electric Nation has showed us how we can connect more EVs to existing network. 'business as usual' innovation has changed the way we provide customers with a service, now standardised on a three-phase solution to provide capacity for the future.

Our performance metrics for connections in RIIO-ED2

4.231. The range of metrics required to assess performance must support the activities we undertake. In some senses, the metrics can draw upon the format of existing performance metrics. Existing measurements of customer satisfaction, time to quote, time to connect and associated guaranteed standards of service can all be adapted to draw out performance in the provision of connections.

4.232. When delivering new initiatives it is important to measure performance in order to evidence that real benefits have been provided to our customers through the improvements we have made. Some initiatives will lend themselves to specific measures whereby we can capture information to clearly evidence an improvement in that commitment area. Where this is the case we have set out the specific metric to be applied. In other areas it may be more difficult to measure improvements without exposing customers to numerous surveys relating to multiple individual improvements. An example might be where we are looking to publish new or improved guidance.

4.233. Rather than inundate customers with multiple surveys relating to individual elements, we will look to capture overall satisfaction in key areas. Where this is the case we will note against the improvement areas that performance will be measured using a number of overall metrics. Our

targets and metrics are set out under our Connections Strategy and supplementary baseline expectations documents. These targets and metrics reflect our current thinking at this stage and may be refined dependent on the outcome of discussions surrounding performance metrics currently being held between DNOs and Ofgem.

4.234. Ofgem will use a number of metrics to measure DNOs success in meeting their obligations under the connection principles and baseline expectations. The full extent of those metrics is yet to be decided but they will address each of the three connection principles and potentially cover the following customer satisfaction areas:

- Connections Principle 1 – Customer satisfaction with pre-application process
- Connections Principle 2 – Customer satisfaction with quotations
- Connections Principle 3 – Customer satisfaction with connections completed

4.235. We will demonstrate performance against these industry metrics and our own initiative specific measurements for success.

What our stakeholders said about the connections

4.236. What our customers considered to be their top priorities for connections is described in figures SA-02.69

	Stakeholder Top Priorities	Core Commitments which Addresses this Priority
1	Invest ahead of need and undertake forecasting for EV connections to ensure sufficient capacity, e.g. new apartment blocks	Commitment 1 and 2
2	Increase the speed of the connections process	Commitment 31
3	Offer more flexible connections (particularly at 11kV)	Commitment 32
4	Ensure that information about the connections process is clear and simple for customers without technical backgrounds, especially for heat pumps	Commitment 2 and 3
5	Hold a series of connections workshops at a local level for customers, using local case studies	Commitment 3
6	Develop clear information / guides for small developers, planning consultants and customers to support them through the application process	Commitment 31

Figure SA-02.69 Stakeholder top priorities for connections

4.237. Throughout the course of our discussion with connections stakeholders, we have fostered the spirit of co-creation. We have not sought to drive the narrative but allowed the stakeholder to shape the course of the plan. With their input, we have developed two core commitments and a number of wider commitments that will act as the framework for our connections strategy, ensuring that we cover the complete spectrum of connections activity.

4.238. These commitments have been developed through an extensive course of stakeholder engagement. This has included both wider engagement at a higher level and liaison with a number of expert groups including our own Customer Engagement Group who have provided invaluable feedback and challenged our proposals when necessary.

4.239. Our Business Plan sets out the full list of our 42 core commitments. Core commitments 31 to 32 of the Business Plan relate specifically to connections and are discussed here.

4.240. Both of these core commitments will be underpinned by specific initiatives that undertake to deliver against the Connections Strategy's high level principles and associated baseline

expectations (see 'Major Connections Customers Connections Strategy' below). Our goal is to not only meet the baseline expectations but exceed them wherever possible. We will achieve all this through a 'business as usual' approach and not request additional funding to deliver our commitments

4.241. If we are to continue to deliver connections services in a rapidly changing landscape, we must retain focus and target a number of areas by;

- Providing excellent customer service
- Providing quicker and more efficient connections
- Engaging with customers to understand their future energy needs
- Ensuring effective customer outcomes through collaboration
- Increasing customer choice

Providing excellent customer service

4.242. During RIIO-ED2, we will continue with our strategy of stakeholder engagement to ensure we are delivering the outputs that connections customers want. It is critical that we build on the strong relationships established with stakeholders throughout RIIO-ED1 so that we can evaluate the impact of changes brought about under RIIO-ED2.

4.243. Our strategy underpins our commitment to deliver excellent customer service and enables stakeholders to measure our performance and hold us to account where that performance falls short.

4.244. While our Major Connections Strategy will cover those relevant market segments that did not pass the Competition Test, we will not lose sight of our obligations to major customers who fall in to other market segments. We will also include smaller customers (such as domestic/small businesses) and will ensure that comprehensive and user friendly information is available to them so that they can make informed decisions, particularly where they are existing customers and looking, for example, to adopt LCTs.

4.245. We will continue to interact with our stakeholders though well established channels such as workshops, seminars and expert panels, as we believe face-to face discussion is the best method of communication. However, we will increasingly make use of other virtual meeting platforms, which allow for immediate contact without the need to set aside travel time or hosting costs.

4.246. Through our ongoing interaction with stakeholders, we will identify means of improving customer service from pre-application stage, to actual application, provision of connection offers and delivery of connection.

4.247. Our stakeholders have told us that it is imperative that information is easily available to them and that the information provided is clear and easy to understand. They want the process to be simple to follow.

4.248. Our website is a key point of entry for the customer and so we will review, revise and improve the website to provide a more easily navigable functionality that will be tailored to customers' needs, whether they are a first time user or a more experienced client who knows what they want to do.

4.249. We will examine methods to improve interaction with customers so that they do not feel frustrated by lack of feedback or updates on progress of quotations and connections. We will develop an online 'Enquiry Tracker' to help customers quickly identify how a scheme is progressing. We will

ensure that customers know who their point of contact is should they need to discuss any aspects of the scheme at any point in its life cycle.

4.250. A proportionate number of customers will be surveyed following connection so that we can assess our level of performance during the customer's connection journey. Continuous feedback will help us to identify areas where we are performing well and those where we need to make improvements to the process. We will seek to obtain an average customer satisfaction score of 90% or higher with regard to availability of information and overall customer journey.

4.251. As part of the first draft Business Plan consultation, our stakeholders were asked what level of customer satisfaction they would want WPD to commit to. We understood from our stakeholders that we should at least maintain our current level which is 89% average customer satisfaction. In our consultation we gave our customers three options which are practical to deliver – 90%, 91% or 92% customer satisfaction. Stakeholders also had the option to choose an alternative if they these options did not provide the level of service that they wanted. The results are shown in figure SA-02.70

4.252. As part of our consultation 78% of our stakeholders supported the 90% satisfaction level.

Customer satisfaction for new connections
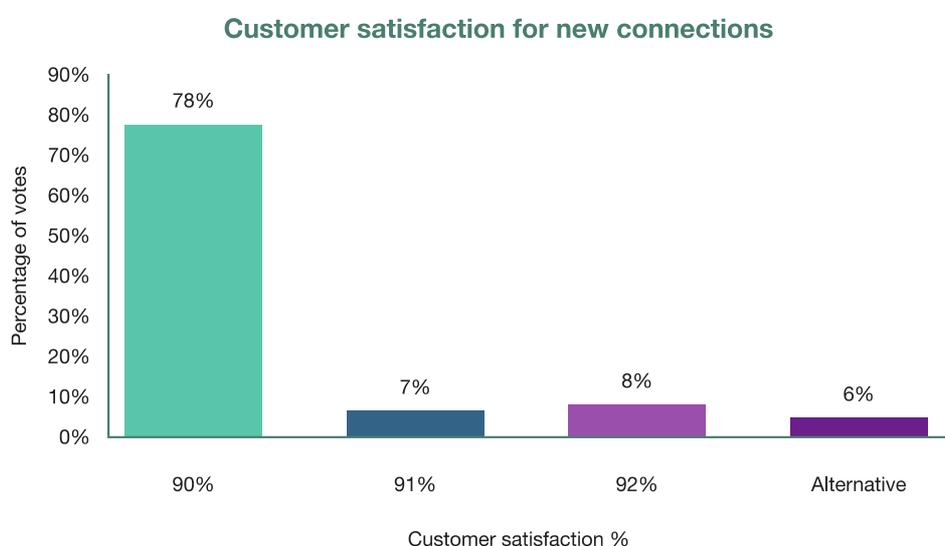
Figure SA-02.70 Stakeholder consultation feedback results – Customer satisfaction for new connections

Providing quicker and more efficient connections

4.253. In RIIO-ED2, we will continue to focus on the quick and efficient delivery of connections. This means the provision of both timely quotations and the physical connection works. This focus will cover all connections from single services to larger schemes for major connections customers and embrace both demand and generation.

4.254. Our stakeholders want to see an improvement in time to provide a quotation (TTQ) and time to connect (TTC) – please see figure SA-02.71

Time to Quote and Time to Connect % improvement

Improve our performance against Time to Quote (TTQ) and
Time to Connect (TTC) for LCTs from RIIO-ED1 level
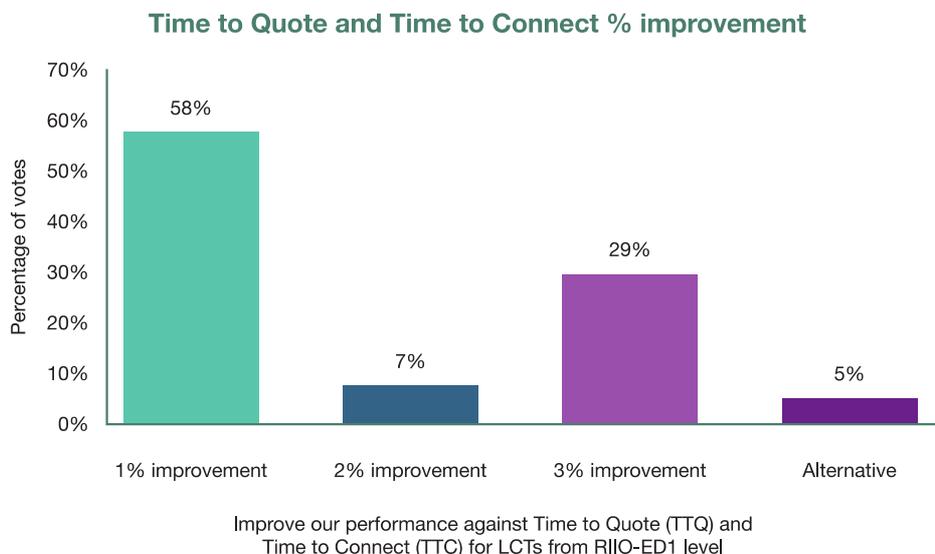
Figure SA-02.71 Stakeholder consultation feedback results – Time to quote and time to connect

4.255. Our major connections customers have told us that, while timely quotations and connections are important to them, time is not always of the essence and making less assumptions at an early stage to expedite the process is not always an imperative if it means more accurate assessment and design decisions can be made. We will continue to explore potential options with stakeholders.

4.256. Connection stakeholders have told us that receiving quicker and more efficient connections is particularly important to them in relation to the installation of LCTs such as electric vehicles, heat pumps and renewable generation.

4.257. The government wants to increase the number of electric heat pumps used for building heating from 30,000 per year to 600,000 per year by the end of 2028, along with a ban on the sale of diesel and petrol cars and vans by 2030 and hybrids by 2035. This will lead to a growth in the ownership of electric vehicles and heat pump heating systems, which will require extra capacity to be built into electricity distribution networks to meet the higher demand.

4.258. The increased demand will add to the existing network challenges that have arisen from previous government incentives to move away from centralised fossil fuel-based electricity generation to more localised renewable distributed generation. During RIIO-ED1, the proliferation of distributed generation has impacted networks by changing how the power flows on the network are managed and how demand is balanced with distributed energy resources such as local generation and energy storage.

4.259. Chargers will be installed in businesses and locations such as 'park and ride' sites or office car parks, so that vehicles can be charged during the day. Larger rapid chargers will be installed at public locations such as service stations, motorway services areas and car parks, where drivers need a faster charge. These will also be suitable for vehicle charging hubs, such as those used to charge taxis.

4.260. We will continue to explore innovative ways of connecting LCTs and build on initiatives, to develop the infrastructure to deliver energy when and where it is needed, at strategically important charging hubs, on-street, or at home.

4.261. We will need to meet the additional demand for connections by reviewing and revising our processes for application and delivery of connections. Applicants will want to receive a quotation in quick time and also a timely and efficient connection. We will continue to explore how to better deliver quotations, particularly in relation to larger, more complex connections. Stakeholders have told us that the speed of a quote is not always the most important thing, if this means that accuracy is compromised.

4.262. We will develop self-serve online tools to allow customers to self-assess their connection requirements, obtain a cost of connection and enter into connection offer agreements. This will include co-creation tools to identify the differences in cost and timescales to connect associated with trigger levels for more significant works.

4.263. We must ensure our network can support the growth of LCTs (up to 1,600 connections per working day for EVs/heat pumps). For individual domestic LCT applications, we will ensure a same day response to mitigate delays and help customers quickly assess the potential impact of their installation on the network with the minimum of fuss.

Core Commitment 31	**Make it as easy as possible for customers to apply to connect individual domestic low carbon technologies by providing a same day connections response via an online self-assessment tool.**

4.264. This new core commitment has been added to our Business Plan, in response to stakeholder feedback. Stakeholders involved in the consultation on the first draft of our Business Plan felt we needed to develop a 'same day service' to deal with an expected surge in LCT connections enquiries. They wanted this new service to provide information to applicants in a matter of minutes.

4.265. In response to this, we created commitment 31 to provide a same day connections response for low carbon technology applications. We subsequently asked for feedback on this commitment. The results are shown in figure SA-02.71.


Provide a same day connections response for customers by introducing online self assessment tools for individual Low Carbon Technology applications
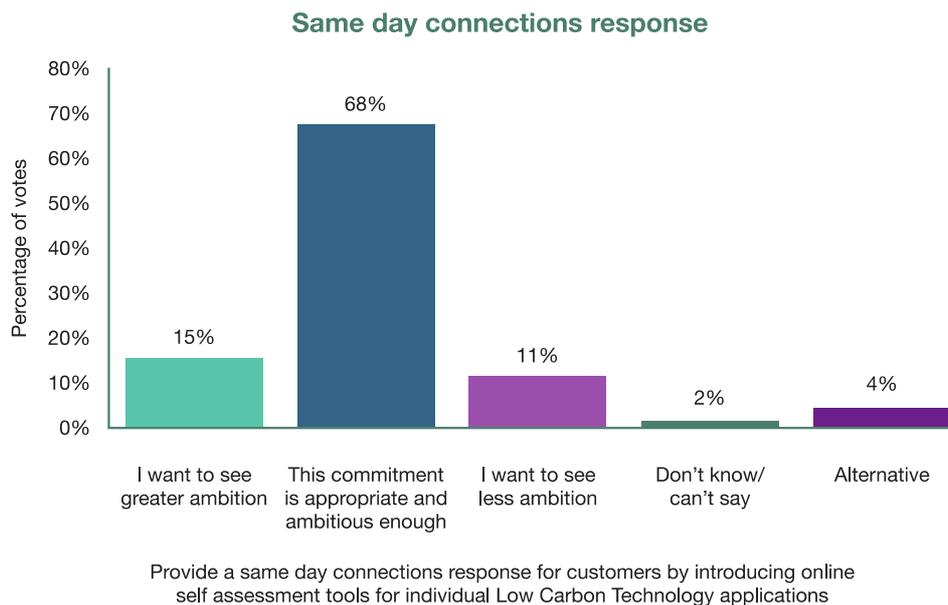
Figure SA-02.72 Stakeholder consultation feedback results – Same day connections response

Engaging with customers to understand their future energy needs

4.266. There are huge ambitions for economic and industrial growth across our licence areas. We are keen to play our part in ensuring that the energy system acts as a catalyst for growth, alongside other critical infrastructure assets such as transport and broadband.

4.267. To better understand our customers' future energy needs, we have worked with partners to model future electricity demand and generation across our licence areas. We know that consumption and generation patterns will change dramatically with the widespread uptake of low carbon technologies such as EVs, heat pumps and energy storage.

4.268. Each year, we produce Distribution Future Energy Scenario (DFES) reports to forecast the volumes of LCT uptakes up to 2050. For each type of LCT, we create demand, generation and storage load profiles that are used to identify the impacts on the network. WPD's Best View Scenario considers national scenarios and takes account of local area engagement (Local Area Energy Plans). The forecast is tempered by likely changes in consumer behaviour e.g. increases in energy efficiency and pricing led Demand Side Response (DSR).

4.269. A separate process called Distribution Network Options Assessment (DNOA) is used to compare different solutions to resolve constraints on the network. Those with the best cost benefit are put forward as an investment recommendation.

4.270. Going forward, we are keen to work with the government, Ofgem and our partners across our distribution areas to ensure the region's energy infrastructure is fit for purpose and enables growth. In practice, we believe it is crucial that energy needs are embedded in regional growth plans from the outset. LAEPs are aimed at implementing local action that can contribute to the overall UK net zero targets. The local plans for low energy housing stock, electric vehicle charging and industrial/commercial development will influence the demand for electricity and hence the requirements for the electricity distribution network.

4.271. Local authorities are required to develop Local Energy Action Plans (LAEPs) to identify the changes they need to make to achieve net zero targets. The varying range of experience and resources among the 130 local authorities in the WPD region and this means that different local authorities are progressing at different rates in the development of their LAEPs.

4.272. Some authorities require greater interaction in order to understand where developments can take place, what constraints may arise from their proposals and how their strategies may impact the network.

4.273. To assist them with their plans, we propose to hold dedicated surgeries where more detailed discussions can take. The results are shown in figure SA-02.73.

Local authority engagement
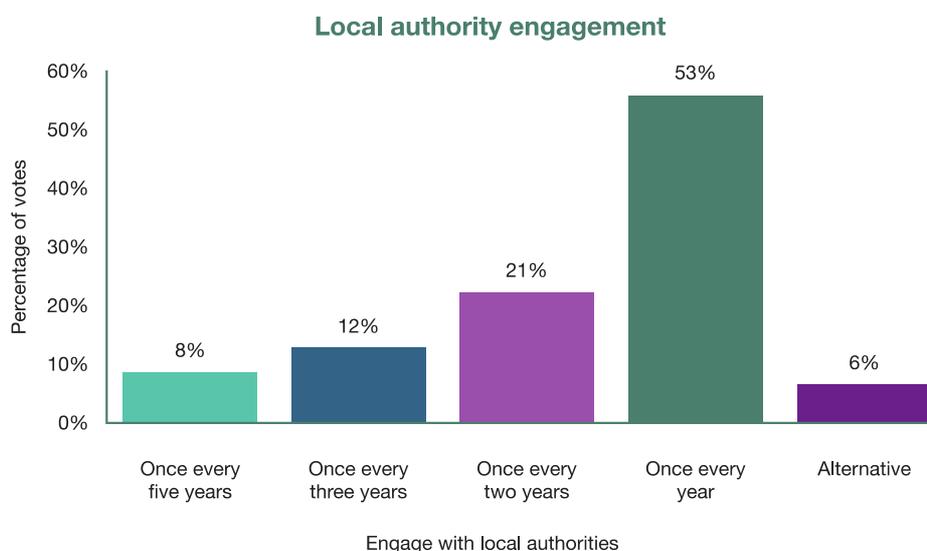
Figure SA-02.73 Stakeholder consultation feedback results from WPD's local energy surgeries

4.274. As part of our consultation, our stakeholders felt that we should hold 90 local energy surgeries per year.

4.275. A number of local authorities have established comprehensive future energy plans, while others are still in the process of development. WPD has utilised these plans in developing network requirements and to inform the future energy scenarios that have been developed for each licence area, which in turn influence the amount of network expansion and reinforcement that is required to meet local energy demands.

4.276. Local authorities have told us that they would welcome regular and early engagement with WPD at a strategic planning level, to try to avoid the risk of network constraints ahead of time. To aid this, stakeholders feel that WPD should continue to allocate capacity for a limited period of time, and to make this available again if it is not utilised in a reasonable amount of time.

4.277. Each year, we will hold discussions with all 130 of our local authorities and local enterprise partnerships to ensure we understand their local energy requirements for long term strategic investment to support the green recovery and achieve net zero.

Ensuring effective customer outcomes through collaboration

4.278. Competition in Connections is now firmly embedded throughout the electricity distribution industry. Many customers now seek competitive quotations from third party Independent Connection Providers (ICPs) as an alternative to using the DNOs.

4.279. Throughout RIIO-ED1, processes were put in place to reduce the level of non-contestable services that could only be provided by the host DNO. The implementation of the CiC Code of Practice formalised these arrangements and set a minimum level of service by DNOs to remove any barriers to competition.

4.280. Enabling Competition in Connections remains high on the agenda in RIIO-ED2 and, although we believe the competitive market is very well established, we will continue to innovate where there is potential to improve the process.

4.281. Independent Distribution Network Operators (IDNOs) now enjoy a significant share of the market and win the majority of work in certain sectors such as housing. We welcome the reinstatement of the ENA Working Group to revisit DNO/IDNO technical and commercial arrangements set out under Engineering Recommendation G88. We believe ongoing discussion is imperative to ensure that the consumer is best served under the process.

4.282. The work undertaken by the CiC Code of Practice Panel and the G88 ENA Working Group shows that there is still much to be done in this particular area. There is still some misunderstanding regarding what can be provided by the ICP and also who has responsibility for certain undertakings. As a consequence, the customer may have some apprehension about utilising an ICP or even experience a detrimental service because of these misunderstandings.

4.283. We believe that continued engagement with ICPs and IDNOs, to find improvements in the process, will benefit all the parties involved by creating efficiencies in working practices, and help the end customer by ensuring the most cost effective connection solution is found.

4.284. We will continue to work with our industry partners to accommodate the introduction of early and late competition models. We want to ensure that any arrangements are developed in an efficient way and that fair and transparent competition models incorporate and balance feedback from all affected stakeholders. Any early and late competition models must work alongside DSO and flexibility services which offer an alternative to reinforcement. The early competition framework should therefore flow from the DSO function agreed for RIIO-ED2.

4.285. Learning from National Grid's Electricity System Operator model will be critical to development but it is important to understand the differences between the transmission and distribution systems and to determine if the principles are fully transferable.

4.286. Distributed Energy Resources wishing to connect to WPD's distribution system may have an impact on the transmission system. Under the Connection and Use of System Code, DNOs are required to make a request for a Statement of Works (SoW) to National Grid's Electricity Transmissions (NGET) in relation to the potential impact of generation connections on the transmission system.

4.287. Due to the lengthy SoW process and cumulative impact of connecting large volumes of new generation to the distribution system, an alternative approach has been developed with NGET and a new trial SoW process is currently in place, known as the 'Appendix G trial'.

4.288. In RIIO-ED2, we will continue to work with NGET and other DNOs in order to develop processes that ensure the customer receives a timely and efficient connection based upon the most cost efficient and economical solution.

Increasing customer choice

4.289. The advent of a smart grid and introduction of flexible connection solutions (including Active Network Management) means that we are now able to offer the customer an alternative to a conventional connection offer that may include network reinforcement. Flexible connections are offered to customers so that reinforcement can be avoided or deferred, invariably saving on significant cost and delays.

4.290. From the outset, customers need to know there are alternatives available to them. These alternatives need to be clearly explained both at pre-application and application stage so customers can make informed choices and understand what a flexible connection will mean for them. We will make improvements in this area to ensure customers are aware of the choices open to them.

Core Commitment 32	**Provide quicker and cheaper connections options for customers by increasing the number of flexible connection offers made, ensuring 100% of schemes receive a flexible alternative to reinforcement where the reinforcement cost is >£75k for LV, 11kV and 33kV connections and > £100k for 66kV and 132kV connections and/or where works that will take more than 12 or 18 months respectively to complete.**

4.291. Our stakeholders felt that it was important that we offer flexible connection offers. In our first draft Business Plan, we proposed a threshold of >£125k per MW or works which will take more than two years to complete. In our first draft Business Plan consultation, our stakeholders were asked what threshold option was preferred and were given four options. The results are shown in figure SA-02.74.

Flexible connection offer trigger levels
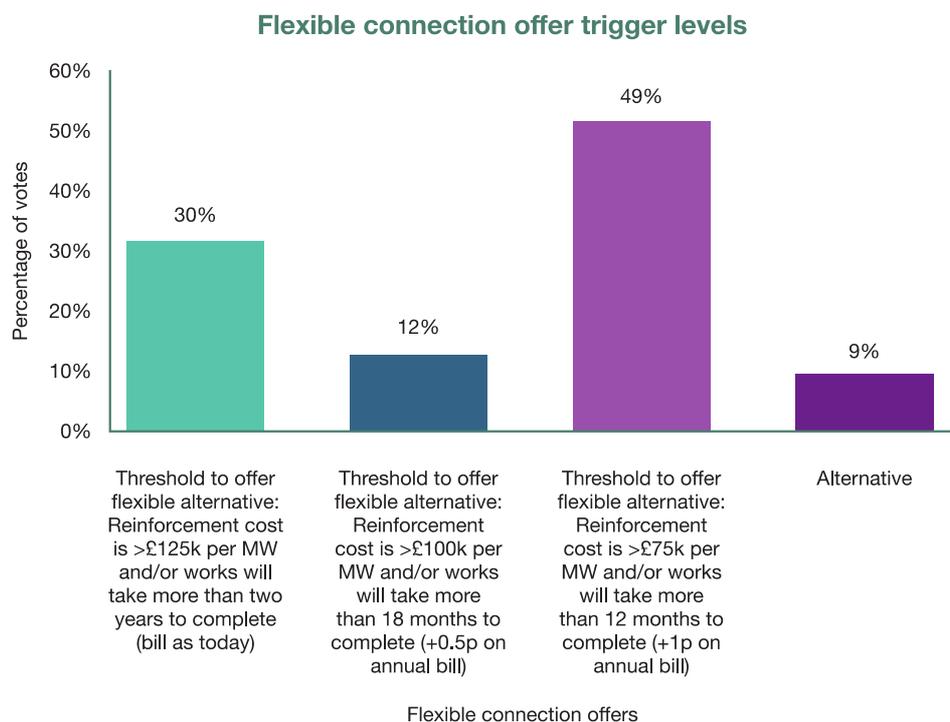
Figure SA-02.74 Stakeholder consultation feedback results – Flexible connections offers trigger level

4.292. As part of our consultation our stakeholders felt that we should be ambitious and reduce the threshold to >£75k for LV, 11kV and 33kV connections and >£100k for 66kV and 132kV connections. This has been now included in our core commitment and means we will significantly increase the number of flexible connections offers we will issue.

4.293. We will also be more proactive in our approach to discussing reinforcement trigger levels for relevant customer applications. The process will allow WPD to inform a customer of the level of reduction in capacity required to avoid triggering reinforcement, so that a customer can make an informed choice as to whether to proceed with their full capacity and pay for reinforcement, or to reduce capacity and avoid reinforcement.

4.294. We will continue to invest in the network through general reinforcement where there is a case to do so but also prioritise non-network solutions through the use of flexibility. This will save our customers the time and expense associated with conventional network reinforcement schemes.

4.295. We will explore the potential to offer more forms of flexible connection, i.e. not just through active network management or 'timed' connections but also using flexibility through energy efficiency,

working with developers to create solutions that optimise levels of network utilisation, thus reducing costs.

4.296. Previously, customers wishing to connect larger generation with high network reinforcement costs have been the focus of optional flexible connections. Because we recognise that flexibility has wider applications, we will widen the scope and lower the threshold for offering alternatives, allowing more customers to choose between a conventional reinforcement solution, or a cheaper and quicker flexible solution.

Facilitation of shallower connection boundaries

4.297. The cost of network reinforcement is sometimes seen as a barrier to the new connections, particularly where it is not possible to find alternative network solutions. The Access Significant Code Review Delivery Group is tasked with looking at options for a shallower connections boundary and has proposed that some reinforcement costs be recovered through connection charges, although less than before. This is implemented through changes to the voltage rule and/or the cost apportionment calculation set out under each DNO's charging process.

4.298. Making the connection boundary shallower will reduce the cost of connection but still keep some locational signal. Although the locational signal may be weaker, this will be mitigated by more locational DUoS charging.

4.299. In the lead up to RIIO-ED2 we will assess the potential impact of any agreed change to the connections boundary to understand how it may alter customer behaviour and identify any changes in process needed to accommodate this. Any change to our charging methodology will be incorporated in to our Connections Strategy and shared with staff and stakeholders in good time to ensure a smooth transition to the new regime.

Facilitation of revised access rights

4.300. The Access Charging Sub-Group has developed a number of initiatives in the lead up to RIIO-ED2 to ensure shortlisted options are explored fully. Much work has been done on examining access rights, particularly around distribution users' access to the transmission network and options for sharing access rights and we will continue to support its development and ensure that robust procedures are in place to facilitate implementation.

4.301. To carry out this work effectively, we will need to put complex contractual and technical arrangements in place. In some cases, access options would allow a third party to manage physical access to the transmission system on behalf of a generator, without the need for additional obligations and complexity associated with existing access requirements.

4.302. Similarly, making it possible for a number of users at a specific network location to share access with each other, perhaps behind a specific local constraint, will be complex. Sharing of this kind should deliver real advantages, such as delivering network benefits or enabling the connection of additional LCT equipment within an agreed collective access ceiling. The operating principles should clearly support the purpose of the sharing group.

4.303. We will work with industry to introduce sound practices that meet Ofgem's guiding principles to support the efficient use and development of system capacity to reflect the needs of consumers

Delivering for our major connections customers

Enhanced engagement with major customers

4.304. Major connections customers, such as housing developers or distributed generators, have different needs compared to smaller customers because of the complexity of their schemes. Leading up to and during RIIO-ED2, we will continue to seek the views of industry experts such as those on our Connection Customers Steering Group (CCSG).

4.305. The CCSG is made up of a range of stakeholders representing a cross section of connections customers to provide a balanced view of connection issues. The Group provides feedback on proposed initiatives and a strategic steer, ensuring that we correctly identify the priority areas to be addressed.

Incentives on connections engagement

4.306. As part of RIIO-ED1, DNOs were tasked with improving customer service. This included the introduction of a customer satisfaction survey for minor connection customers, a Time to Connect incentive (also for minor connections customers) and a new Incentive on Connections Engagement (ICE) for major connections customers.

4.307. ICE was introduced to encourage DNOs to improve the overall customer experience across the Relevant Market Segments (see figures SA-02.75).

4.308. Its purpose is to replicate the effects of competition and to enable customers to influence a DNO's high level strategy and planned activities.

| Connections relevant market segments								
Demand connections				Distributed generation		Unmetered connections		
LV work	HV work	HV and EHV work	EHV work and above	LV work	HV and EHV work	LA work	PFI work	Other work
Connections to metered premises for demand customers at all connection voltages e.g.: • Domestic houses. • Commercial and industrial units. • Electric Vehicle charging points. • IDNO networks.				Connections to metered premises for generation at all voltages e.g.: • Rooftop solar installations. • Large scale windfarms. • Battery storage.		Connections to unmetered premises for demand connections for local authorities or private sector e.g.: • Street lights. • Bus shelters. • Telecoms kiosks.		

Figure SA-02.75 Connections market segments

4.309. We create an ICE Plan every year outlining a number of actions for improvement we aim to complete. The ICE Plan is based on stakeholder feedback and focuses on areas such as availability of information, customer service, legals and consents, community energy and DSO.

4.310. Some actions may be 'quick-wins' while others cover more far reaching improvements requiring a change in policy. All are high priority for stakeholders.

4.311. After completing each action, we liaise with stakeholders to ensure that our targets have been achieved. Where this is not the case, we will consult with them again to find a satisfactory resolution.

4.312. Since ICE was implemented in 2015, WPD has delivered on 389 ICE actions (up until 31st March 2020) covering areas such as communication, availability of information, extension to contestability and community energy.

4.313. While Ofgem acknowledged that ICE proved to be an effective mechanism for ensuring DNOs identify connection customers' concerns and priorities, they were not convinced that all DNOs have sought to address these effectively. As a consequence, they decided that the ICE process should be removed and should be replaced in RIIO-ED2 by the implementation of DNO Connections Strategies.

Ofgem requirements for a Connections Strategy

4.314. DNOs have been asked to develop a Connections Strategy as part of their Business Plan, setting out how they will deliver quality services for major connections customers during RIIO-ED2. The purpose of this mechanism is to act as an incentive to DNOs to improve service standards for major connections customers by developing consistent and high quality connections strategies.

4.315. Our Connections Strategy is available on our website at yourpowerfuture.westernpower.co.uk/downloads-view/42054 and appendix A12 of this document.
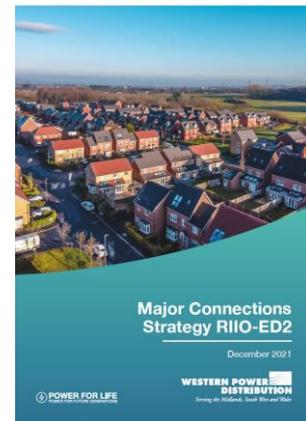
4.316. Ofgem has set out three connections principles and associated baseline expectations that it expects WPD to adhere to. The principles are set out in figure SA-02.76.

Connection Principles	
Connection Principle 1	Support connection stakeholders prior to making a connections application by providing accurate, comprehensive and user-friendly information
Connection Principle 2	Deliver value for customers by ensuring simplicity and transparency through the applications process
Connection Principle 3	Facilitate the delivery of timely and economical connections that meet customers' needs

Figure SA-02.76 Connections principles

4.317. These three connections principles will form the core of our Connections Strategy and act as the framework against which we will test all proposed actions and initiatives to ensure they meet the remit to provide excellent customer service.

4.318. These principles will ensure our processes will enable our connection stakeholders to make informed decisions, deliver value for customers and carry out timely and economical connections to meet customers' needs.

4.319. In association with each of the connection principles, a series of baseline expectations will also apply. The baseline expectations are intended to embed an appropriate minimum level of service although our goal is to exceed these standards in all areas. We will, as a minimum, ensure that we meet the baseline expectations by implementing key deliverables against the each of the relevant market segments. More details of our proposed commitments can be found in our Connections Strategy.

Customer value

4.320. Our connections work is governed by simple guiding principles. We must provide quick and efficient connections in accordance with our charging methodology and ensure that we facilitate competition in connections. We must also provide excellent customer service and ensure customers are not unduly discriminated against.

4.321. The use of stakeholder engagement and delivery of initiatives through ICE and other mediums helps us to meet these principles. It enables us to focus on the things that are important to connections customers, rather than what we think is important to them. Stakeholder engagement helps us to respond to specific needs and develop a plan of action that delivers customer value.

4.322. The introduction of a Connection Strategy for RIIO-ED2 will build on ICE and allow us create a long term vision for improving customer services to 2028 and beyond. The initiatives we commit to will include deliverables which are specific, time bound and relevant. We will set out a clearly articulated vision for addressing connections issues, identifying links between the proposed deliverables and the outcomes and the benefits these will deliver. If a quantifiable metric can be established, we will propose a baseline target that we can be judged against.

4.323. We are responsible for implementing formal processes and procedures to ensure we provide transparency and clarity. But we are also available to act as a point of contact and provide informal advice for customers when required. Stakeholders tell us they value face-to-face conversations and have welcomed our use of connection surgeries to make this possible.

4.324. We believe that, by enabling the transition to a smart, flexible, low cost and low carbon energy system through the development of new policies and processes to reflect the needs of our customers, we will be in a strong position to deliver excellent customer value. This will be shown through the delivery of our specific outputs throughout RIIO-ED2.

5. Maintaining a safe and resilient network

Network Resilience

5.1. Stakeholders continue to place network reliability as a top priority. Power cuts cause inconvenience to businesses, services (such as hospitals) and domestic life. That is why we are committed to making sure our network is reliable and that faults are resolved quickly.

5.2. The WPD distribution network is made up of a huge number of interconnected overhead lines, underground cable and substations. Many of these assets were installed during the 1950s and 1960s and some still in service even predate this peak of activity. In recent years, we have set up a rolling programme of work to replace those assets in the poorest condition. This work will continue into RIIO-ED2.

5.3. Faults are prevented through routine activities such as inspection, maintenance, defect repairs and tree clearance. During severe weather, the network has to withstand more extreme conditions which is why we carry out more extensive measures such as resilience tree clearance to prevent trees falling onto and damaging network assets and flood protection to reduce the impact of flooding on consumer supplies.

5.4. While network reliability is important, safety remains our top priority. We carry out regular activities to make the network safe for our staff and the public. Our inspection programmes identify defects with potential safety implications allowing these to be resolved quickly. We also carry out improvement work such as upgrading security at substations and – as part of our proposed RIIO-ED2 programme - removing overhead lines close to schools and play areas.

Track record

5.5. Figure SA-02.77 shows some of the highlights of our performance in RIIO-ED1.

38% reduction in customers affected by power cuts

48% reduction in average duration of power cuts

87% of customer supplies restored within an hour of high voltage faults

**99%** reduction in faults lasting greater than 12 hours
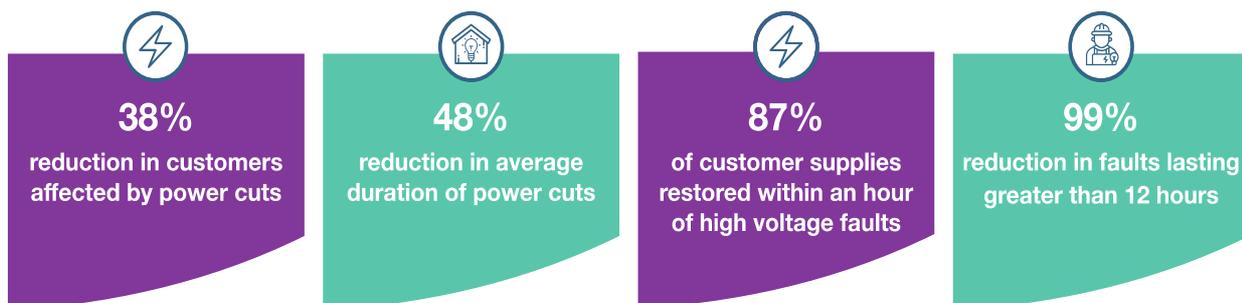
Figure SA-02.77 Highlights of our reliability performance during RIIO-ED1

5.6. Network performance is measured primarily by Customers Interrupted (CIs) and Customer Minutes Lost (CMLs). These measures were first introduced in the DPCR3 price control (2000-2005) and are established indicators of performance. For RIIO-ED1, WPD proposed targets that were more onerous than those being put forward by Ofgem. We have outperformed these targets as shown in figures SA-02.78 and SA-02.79.

# Customer Interruptions (CIs) performance
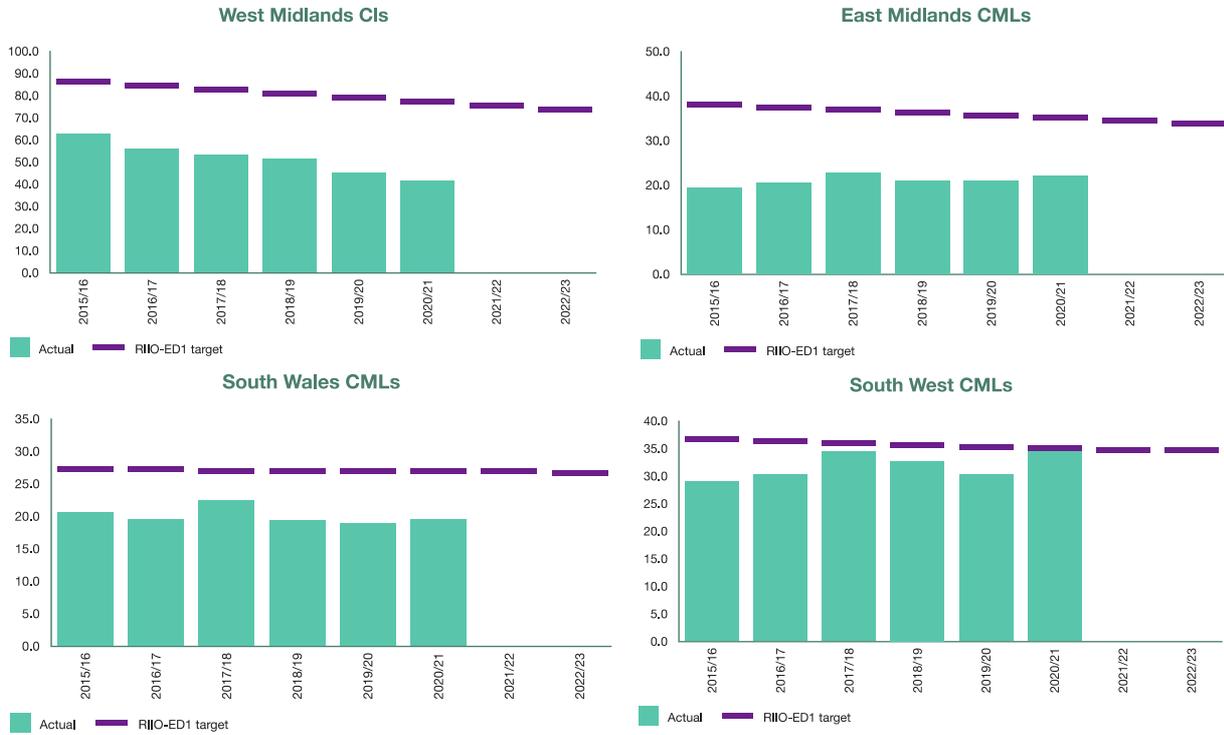
Figure SA-02.78 WPD's Customer Interruptions performance by licence area

# Customer Minutes Lost (CMLs) performance

Figure SA-02.79 WPD's Customer Minutes Lost performance by licence area

RIIO-ED2 overview

5.7.   In RIIO-ED2, WPD will continue to focus on ensuring that the network is safe and reliable.

5.8.   Activities to safeguard network reliability are related to three factors:

- Fault rate – the number of faults that occur;
- Customers interrupted per fault – the average number of customers that go off supply when a fault occurs;
- Duration of a fault – the average length of time it takes to restore supplies.

5.9.   WPD's RIIO-ED2 Network Performance Strategy covers all three areas.

5.10.   In addition, we will continue to improve the network's resilience to severe weather.

What our stakeholders said about the network performance

5.11.   What our customers considered to be their top priorities for network performance is described in figures SA-02.80.

	Stakeholder Top Priorities	Core Commitment which Addresses this Priority
1	Create accurate forecasting models and ensure that assets can respond to future (higher) demand	Commitment 35
2	Continue maintenance and replacement programme for ageing assets (ensure sufficient resources to do so)	Commitments 33 and 35
3	Maintain quality of supply in light of asset health and the growth in demand	Commitment 35
4	Invest in the network to make it more resilient for worst-served customers	Commitment 34
5	Maintain the health of 'at risk' assets and link your scenario planning to this	Commitment 35
6	Communicate more focused, location specific scenario planning and make this information accessible	Commitment 4
7	Use long-term climate scenarios (1:100 years is no longer fit for purpose) and work with housing developers and utilities to mitigate risk	Commitment 36
8	Explore innovative ideas for flood defence and invest in these	Commitment 35
9	Underground cables where appropriate	Commitment 14

Figure SA-02.80 Stakeholder top priorities for network performance

Our network performance commitments for RIIO-ED2

Reducing the number of faults

5.12. Fault rate is typically expressed as the number of incidents occurring per kilometre of network, but, put simply, it represents the number of faults that occur.

5.13. As the network ages and deteriorates, the number of faults will increase, if no intervention takes place. Our investment activity broadly maintains the level of faults, and is targeted to get the most value from this investment. This judgement balances the additional costs of preventative activities with the savings from lower reactive fault costs.

5.14. Through improved targeting, some activities can lead to a reduction in faults. WPD continues to identify and adopt these enhanced ways of working. As a result of these enhancements, we predict that the number of faults will continue to fall during RIIO-ED2.

5.15. Activities aimed at maintaining or reducing the number of faults include:

- Inspection and maintenance programmes to ensure equipment will last for its expected life;
- Repairing defects that are identified during inspections;
- Replacing or refurbishing the assets where the assessment of condition and the assessment of the consequence of failure creates the highest overall risk;
- Enhanced replacement programmes such as removing defective poles from the network within one year of being judged defective to prevent in-service failures (particularly during high winds, snow or icy conditions);
- Completing tree clearance programmes to reduce the likelihood of branches and windborne debris affecting overhead lines;
- Adopting highly accurate LiDAR measurement techniques to better target tree clearance requirements
- Providing adequate network capacity (either through traditional solutions or new flexibility services) to prevent damage to assets from overloading.

Core Commitment 33	Deliver improved network reliability where on average power cuts are better than one interruption every two years lasting less than 22 minutes (12% reduction in customer interruptions (frequency) and 16% reduction in customer minutes lost (duration)), utilising vulnerable customer data to prioritise network improvement schemes.

5.16. Our current performance is the on average a customer will experience one power cut every two years lasting 24 minutes. Our stakeholders felt that this was an acceptable level. However in our first draft Business Plan, we stated that we would achieve on average fewer and shorter power cuts in RIIO-ED2 than RIIO-ED1.

5.17. In our first draft Business Plan consultation, our stakeholders were asked whether they agreed with this ambition. The results are shown in figure SA-02.81.

**Fewer and shorter power cuts
than RIIO-ED1**
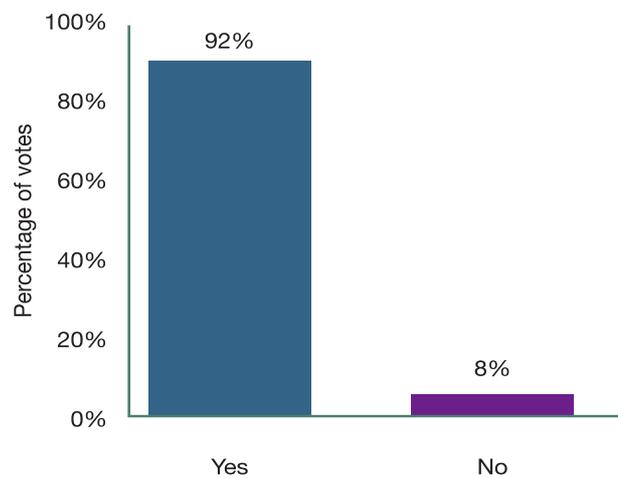
On average fewer and shorter power cuts in
RIIO-ED2 than RIIO-ED1

Figure SA-02.81 Stakeholder consultation feedback results – Power cut reduction

5.18. Our stakeholders supported the ambition to improve on the existing performance but felt we needed to quantity it. As a result, we have revised our wording of the commitment for improved network performance to one interruption every two years lasting 24 minutes.

Target tree clearance

5.19. WPD has invested in LiDAR equipment and installed this on its helicopter fleet. LiDAR uses lasers to measure distance, providing an accurate measurement between overhead line conductors and vegetation. This data is being used to provide better information about tree infestation, including both distance to conductors and infestation levels along the length of the overhead span.

5.20. Towards the end of RIIO-ED1, we changed its contractual arrangements. These previously relied upon tree clearance contractors to manage clearance requirements. Under the new arrangement, we can instruct the contractors to clear specific spans, prioritising those in greatest need.

5.21. This approach is expected to make overall routine tree clearance on the HV and EHV networks more effective. This improved management of clearance could lead to a reduction in tree-related faults. As a result, progressive improvements of 1% a year have been applied to HV and EHV overhead fault rates.

Summary of fault rate improvement assumptions

5.22. Figure SA-02.82 shows the fault categories where improvement assumptions have been built into the forecasts.

Fault Category	WPD Improvement Activities	Improvement in fault rate per annum
LV Services (excluding cut out incidents) - Overhead	Tree clearance	0.5%
LV Network - Supply Restoration by Switching Only (Non Damage Fault)	Smart devices installed on circuits with transient faults converting transient related fuse operation incidents into short interruptions	1%
LV Network - UG Cables (Non CONSAC) - Asset Repair/Replacement Required	Smart devices installed on transients allow identification of faulty locations that are proactively addressed through targeted asset replacement	1%
LV Network - UG Cables (CONSAC) - Asset Repair/Replacement Required	Smart devices installed on transients allow identification of faulty locations that are proactively addressed through targeted asset replacement. Higher volumes of asset replacement in RIIO-ED2	2%
LV Network - OH Lines - Asset Repair/Replacement Required	Tree clearance. D pole replacement Defect repairs at the same time as other work	1%
LV Network - All Other Switchgear, Plant and Equipment - Asset Repair/Replacement Required	Targeted asset replacement of poor condition LV switchgear through NARMS	1%
LV Network - Plant and Equipment LV link boxes only	Targeted asset replacement of poor condition LV UGB through NARMS	1%
HV Network (11 kV and 20 kV) - OH Lines - Asset Repair/Replacement Required	Tree clearance, enhanced effectiveness of using LiDAR approach D pole replacement	1%
HV Network (11 kV and 20 kV) - Pole Mounted Transformers - Asset Repair/Replacement Required	Replacement of older units with Polychlorinated Biphenyls (PCBs) will reduce the older population	1%
HV Network (11 kV and 20 kV) - All Other Plant and Equipment (including GM transformers) - Asset Repair/Replacement Required	Targeted asset replacement of HV switchgear and ground mounted transformers through NARMS	1%

Figure SA-02.82 Fault categories and improvement assumptions

Reducing customers interrupted per fault

5.23. As well as taking steps to limit the number of faults, WPD has been installing remotely controlled devices and automation technology to reduce the number of customers affected when a fault occurs.

5.24. The installation of additional remotely control devices allows electricity supplies to be quickly rerouted or 'switched' without the need to send a person to site. These switching operations can be initiated by staff in our control centre or triggered automatically by computer algorithms.

5.25. Additional equipment to protect the network, such as circuit breakers and intelligent fuses, enables circuits to be subdivided into smaller zones reducing the number of customers affected by a fault.

5.26. The development of automatic switching algorithms allows switching actions to take place without the intervention of a control engineer. The algorithms use information from fault passage sensors

to identify which section of the network contains the fault and then communicate with remotely controlled devices to restore supplies to the maximum number of customers possible.

5.27. During RIIO-ED1, WPD has targeted protections zones with more than 1,500 customers. In RIIO-ED2, WPD proposes to address protection zones with more than 1,000 customers. In most cases, this will involve adding an extra remotely controllable device into those protection zones to increase the number of customers that can be restored automatically.

Getting the lights back on

5.28. WPD is committed to restoring supplies quickly and promotes a culture which prioritises getting customers back on supply. A clear management focus on speedy restoration of electricity supplies in the event of a fault has led to significant improvements in performance in recent years.

5.29. This focus is applied to all faults, whether the fault affects a single customer or thousands of customers.

5.30. An internal initiative called 'Target 60' measures the percentage of customers restored within one hour when a high voltage (HV) fault occurs. During RIIO-ED1, WPD pledged to achieve a Target 60 performance above 85% and successfully exceeded this aim.

5.31. WPD will continue to focus on restoring supplies quickly and to restore more than 87% of customers (who are not automatically restored) within one hour.

12 hour Guaranteed Standard of Performance

5.32. During RIIO-ED1, WPD has significantly reduced the number of interruptions lasting over 12 hours. As a result, we have reduced the number of customers off supply for more than 12 hours from 10,748 in 2012/13 to only 155 in 2020/21.

5.33. This has been achieved through management focus, resource availability, fast response and, where necessary, deployment of mobile generation to provide temporary supplies.

5.34. WPD will continue working to reduce the number of customers off supply for 12 hours or more.

Core Commitment 34	Improve the service for at least 8,260 worst served customers by undertaking 70 schemes.

5.35. Our stakeholders wanted us to carry out work to improve the network reliability for our worst served customers. These are customers who experience 12 or more higher voltage power cuts over a three year period with a minimum of three per year. As part of the first draft Business Plan, we committed to undertake 50 schemes to benefit approximately 5,900 customers. In our consultation, we gave our customers five options and the results are shown in figure SA-02.83.

Worst Served Customers
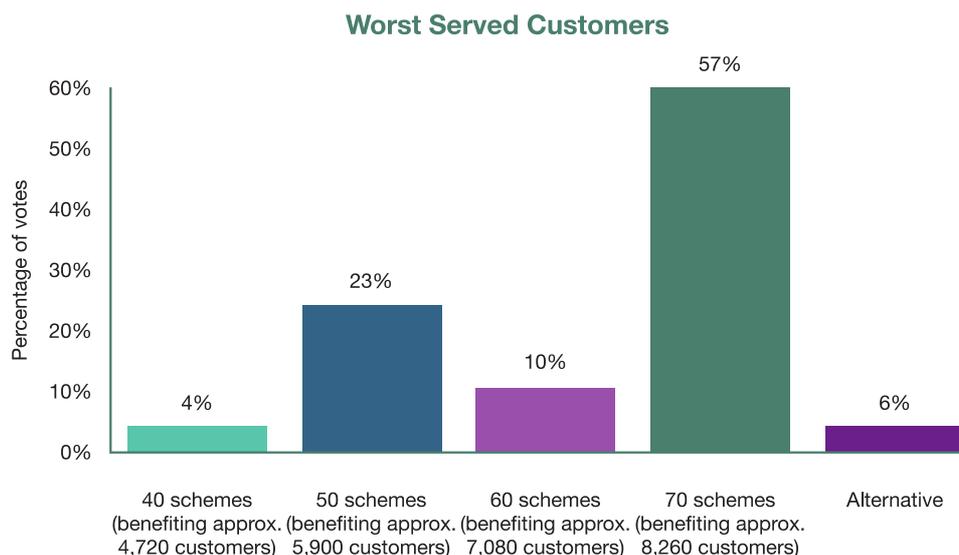
Carry out work that improves network reliability for our Worst Served Customers
(those experiencing 12 or more higher voltage power cuts over a 3 year period)

Figure SA-02.83 Stakeholder consultation feedback results – Worst Served Customers

5.36. Our stakeholders supported further ambition and wanted us to undertake more schemes than we had initially proposed. We have responded to this by increasing the number of schemes from 50 to 70 which will benefit approximately 8,260 customers.

5.37. Only a small proportion of customers experience high numbers of faults. These customers are generally located on the end of long rural circuits or on remote parts of the network, with limited alternative networks available to provide supplies when faults occur.

5.38. The worst served customers suffer higher numbers of faults for a variety of reasons. By addressing some of the causes of these fault or reducing their impact, the overall network performance can be improved.

5.39. Solutions adopted during RIIO-ED1 include:

- network reconfiguration;
- replacement of poor condition overhead lines;
- undergrounding of overhead lines;
- refurbishment of circuit components; and
- installation of additional switching points/protection zones.

5.40. While most of the solutions address the underlying cause of the faults, some call for additional protection devices to reduce the impact of faults, particularly where protection is applied to spurs which prevent faults on those spurs affecting the rest of the circuit.

5.41. The solutions adopted will be informed by analysis of the specific circumstances affecting each circuit with Worst Served Customers.

5.42. In 2020/21, there were approximately 9,000 worst served customers across the four WPD areas, with the majority in the West Midlands and very few in East Midlands. These numbers are presented in figure SA-02.84.

Number of Worst Served Customers (2020/21) – RIIO-ED2 Definition				
West Midlands	East Midlands	South Wales	South West	WPD Total
2,487	1,667	1,459	3,523	9,136

Figure SA-02.84 Worst Served Customer numbers for year 2020/21 based on RIIO-ED2 definition

5.43. Our wider commitments to support worst served customers can be found in figure SA-02.85.

Stakeholder Comments	WPD Response
Consider and address worst-affected customers	Data about Worst Served Customers will be regularly reviewed and schemes developed to improve network performance.
Carry out assessments to better understand and map worst-served customers, ensuring they received tailored support mechanisms	Assessments looking at substations and circuits will be used to identify the worst served customers.
Prioritise Worst Served Customers who are vulnerable and / or fuel poor	The data used for the identification of worst served customers will include the identification of the number of vulnerable customers affected.
Create a clear plan with targets to reduce the number of Worst Served Customers, including what constitutes minimum standards	The targeting of worst served customers will be consistent with regulatory definitions.
Prioritise critical infrastructure, essential services and business customers	The use of battery storage will not resolve the underlying network issues and therefore the use of batteries to maintain customer supplies will not be implemented
Focus on rural areas, ensuring they're as well served as urban areas	Worst served customers will be addressed regardless of where they are located. Most worst served customers are on rural networks which means there will be a natural bias towards rural customers.
Investigate the use of battery storage to help make Worst Served Customers more resilient	The use of battery storage will not resolve the underlying network issues and therefore the use of batteries to maintain customer supplies will not be implemented

Figure SA-02.85 Worst Served Customer wider commitments

Core Commitment 35	**Counteract deterioration of network assets through an investment of £216 million per annum, delivering a 22% change in risk to keep network risk at similar levels to the start of the price control period.**

5.44. Our stakeholders were clear that they viewed the health of our assets as a top priority. As part of the first draft Business Plan, we included this as a core commitment and stated that we would improve the overall health of the network and invest at a level for incremental improvement. As part of our first draft Business Plan consultation, our stakeholders were asked what level of investment they wanted us to commit to. In our consultation, we gave our customers five options and the results are shown in figure SA-02.86.

Overall health of the network

Invest to improve the overall health of the network and develop a measure of overall asset health.
Report annually to stakeholders the impact of our investments.
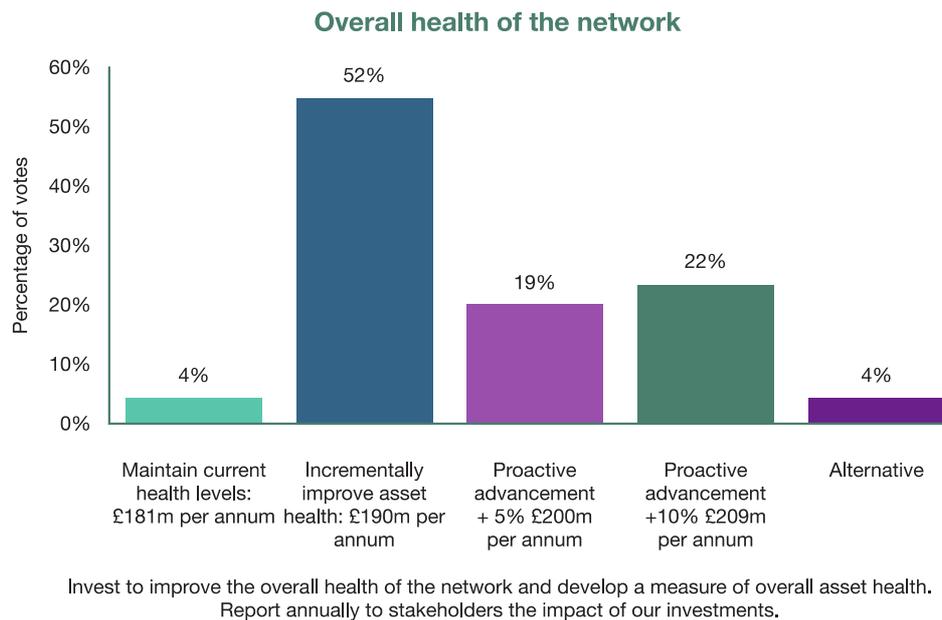
Figure SA-02.86 Stakeholder consultation feedback results – Overall health of the network

5.45. Our stakeholders' strong preference was for us to invest for incremental improvement. So our commitment is for an investment of £216 million per annum to achieve incremental improvement over the RIIO-ED2 period.

Replacement of assets to enhance network performance

5.46. We have a rolling programme of asset replacement to prevent the deterioration of the network over time. The replacement of assets, such as transformers, overhead lines and cables, is prioritised according to the condition of the asset and the risk to the network if it fails. Historically, asset replacement has accounted for the largest part of our capital expenditure, leading to the introduction of regulatory mechanisms to ensure DNOs are delivering agreed work programmes. During RIIO-ED1, Network Asset Secondary Deliverables (NASD) were used, where both the probability of failure (represented by an asset's health) and consequences of failure resulted in a risk measure. For RIIO-ED2, Ofgem has extended the concept of NASD which looked at risk at a point time, to Network Asset Risk Metrics (NARM) which consider the future risk associated with an asset calculated over a number of years.

5.47. NARMs are applied to approximately two thirds of the asset replacement programme and inform the scale of asset replacement activity in RIIO-ED2. Other techniques are also used to forecast requirements. These includes survivor (age based) modelling, bespoke programmes addressing specific issues, such as availability of spares, and historical trending where previous volumes of

activity are used as a reasonable indicator of future needs. In some cases, we use data from a number of sources to determine the forecast levels of activity.

5.48. NARMs targets are set by selecting the assets in poorest condition, reflecting the order in which the work will be carried out. This analysis has been conducted in the sixth year of RIIO-ED1 and therefore takes into account the activity that will be carried out during the rest of RIIO-ED1. Work outstanding at the end of RIIO-ED1 will inform the volumes forecast for RIIO-ED2.

5.49. The asset replacement activity in RIIO-ED2 will maintain the overall health of the assets (as measured by the risk metrics). The benefits of this activity will broadly offset the degradation of the wider network. As a result, general fault rates will remain roughly the same although there may be a small reduction in fault rates in some cases.

Climate change resilience

5.50. During RIIO-ED2, we will use the information from our extensive Climate Resilience Strategy to ensure we consider the risks and impacts of climate change to our network.

5.51. Our Climate Resilience Strategy is available on our website at yourpowerfuture.westernpower.co.uk/downloads-view/42051 and in appendix A13 of this document.

5.52. We will continue to improve our understanding of the environmental effects of climate change. This includes the impact of rising levels of temperature, sea level rise and the changes in the pattern of rainfall.

5.53. We will continue to assess risks and impacts to our network associated with climate change.

Resilience to severe weather

5.54. Storm conditions can have a detrimental effect on supplies. During severe weather, broken poles on our overhead network can make it very difficult to get the power back on as well as tying up resources while repairs are carried out. That is why we have continued with our pole replacement programme to identify deteriorating poles and ensure these are removed quickly from the network.

5.55. During RIIO-ED1, WPD has continued with its D pole programme to identify decayed poles and ensure these are removed quickly from the network. We have also installed flood defences at substations which are at risk of flooding, carried out resilience tree clearance on strategic EHV circuits to prevent trees falling into lines during high winds, and enhanced equipment specifications to install equipment fitted with lightning diverters to limit the impact of lightning strikes on overhead lines.

5.56. In RIIO-ED2, we will continue to replace defective poles within 12 months of identifying them, seek to complete resilience tree clearance on the EHV network and install further flood defences at 102 sites to reflect updated data from the Environment Agency.

Core Commitment 36	Reduce the flooding risk at key sites by undertaking 102 flood defence schemes and engage stakeholders to reduce the need for new assets in flood risk areas.

5.57. Flooding can also pose a risk to our assets and impairs our ability to keep the lights on. To mitigate this, we have proactively installed flood defences at a number of substations which are at greater risk of flooding.

5.58. Our stakeholders were clear that they wanted us to undertake flood mitigation schemes. As part of the first draft Business Plan, we committed to undertake 95 flood defence schemes based on the data available at the time. As part of our first draft Business Plan consultation, our stakeholders were asked what level of schemes they wanted WPD to commit to. In our consultation, we gave our customers five options and the results are shown in figure SA-02.87.

Flood mitigation schemes
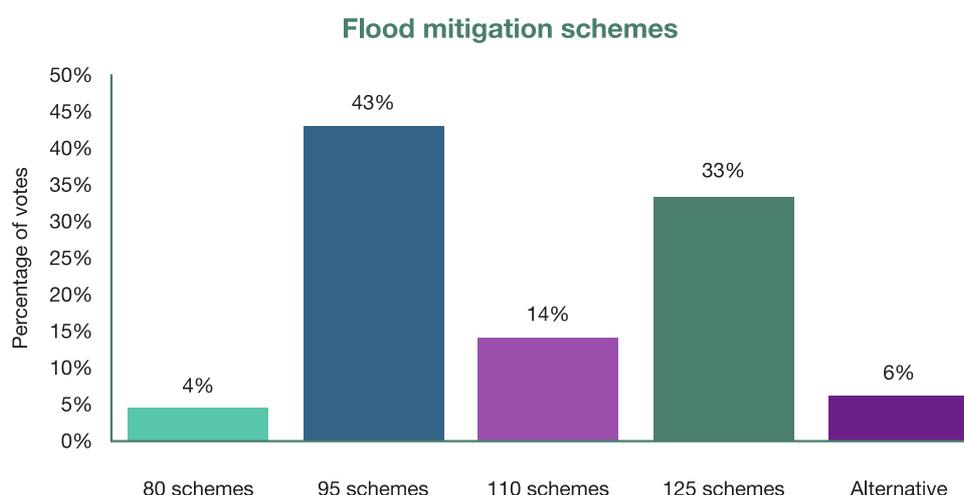
We will continue to install further flood defences to reflect updated data from the Environment Agency

Figure SA-02.87 Stakeholder consultation feedback results – Flood mitigation schemes

5.59. Although 43% of our stakeholders felt that 95 schemes was acceptable, 47% wanted to see further ambition. As a result of this, we increased the number of schemes to 110. Following this consultation, we have refreshed that scenario and there are now 102 schemes, as reflected in our commitment.

5.60. We have also carried out resilience tree clearance on strategic EHV circuits to prevent trees falling onto lines during high winds. We have also applied enhanced equipment specifications, installing lightning diverters to limit the impact of lightning strikes on overhead lines.

5.61. In RIIO-ED2, we will:

- Continue to replace defective poles within 12 months of identifying them.
- Seek to complete resilience tree clearance on the EHV network.
- Install further flood defences at 102 sites to reflect updated data from the Environment Agency.

Network safety programme

5.62. Stakeholders expect us to operate a safe network, and to follow well-established and effective safety processes. We ensure that inspection programmes are completed on time and respond

quickly to safety-related defects. We identify safety issues though routine inspection of our sites and assets. Our inspection processes are designed to identify defects related to safety or performance. Safety defects are rectified using a risk based timescale and we track the completion of these defects to ensure that the risks are removed from the network. Examples of the types of defects that will continue to be resolved into RIIO-ED2 include addressing conductors with insufficient ground clearance and installing anti-climbing devices on poles with mounted equipment.

5.63. In RIIO-ED1, we have enhanced the security measures at all primary substations, installing electric fences in higher risk areas. We do not anticipate significant levels of expenditure on substation security during RIIO-ED2.

5.64. However, we are proposing a new area of work, which involves undergrounding or diverting overhead lines close to school play areas. This follows an incident in the West Midlands where an oak tree caused an overhead line to fall onto an unoccupied playground. Our proposals will help us to remove risks of this kind and improve the safety of children and staff at schools. We have surveyed all the schools in our region and ranked them according to risk; we plan to carry out work at all schools where the risks are medium or higher.

Safety

What our stakeholders said about health and safety

5.65. Stakeholders have been engaged with our Business Plan from the outset. Starting from a blank page, initial suggestions were developed into a draft plan which was discussed with groups of interested parties across the entire business at stakeholder engagement workshops.

5.66. Health and safety was seen as a fundamental consideration in all of the actions proposed throughout this plan.

5.67. However, figure SA-02.88 lists the eight top priorities that were suggested by stakeholders as particular areas of interest on which we should focus our attention. Each of these areas is discussed in more detail in the following pages.

	Stakeholder Top Priorities	Core Commitment which Addresses this Priority
1	Ensure the mental health needs of the workforce are being met, and supported by promoting a healthy work-life balance	Core Commitment 41
2	Ensure that managers commit to leading by example	Core Commitment 41
3	Reach out to schools to inform children about the safety hazards that surround WPD assets	Core Commitment 37 and 38
4	Undertake bi-annual or annual meetings with stakeholders to share best practice	Wider Commitment
5	Ensure contactors comply with similar health and safety standards to WPD	Wider Commitment
6	Undertake 'wellbeing at work' assessments	Core Commitment 41
7	Further support the development of champions in mental health	Core Commitment 41
8	Maintain regular staff training for staff on driving new vehicles, and when logging key information on site visits	Wider Commitment

Figure SA-02.88 Stakeholder top priorities for safety and health

Our safety core commitments for RIIO-ED2

5.68. During RIIO-ED2, we will:

- Continue to comply fully with all health and safety legislation.
- Reduce further the health and safety risks associated with our all of activities on site and within our offices and depots:
- Ensure that employee mental health and well-being is a key consideration in our occupational health initiatives for staff.
- Maintain our safety management system in compliance with ISO 45001.
- Support our managers to ensure they are fully equipped to lead safety management by example.
- Work collaboratively with our regulators and other stakeholders to ensure we support them with their initiatives to improve health and safety, such as the HSE 'Help Britain Work Well' campaign.
- Build on the programme of proactive safety related measures developed during RIIO-ED1, that have helped us improve the safety of staff and contractors in the workplace, , continuing with:
- Development or procurement of training resources for the implementation of new technologies

- Our operational safety and refresher training programmes to ensure continuing competence of staff and contractors
- Health and Safety related conferences for our staff and our contractors to provide information and facilitate the sharing of best practice ideas
- An independent site audits programme to identify strengths and weaknesses of current practices
- Our internal line manager and independent manager site safety visit programme to ensure compliance and to rectify and provide support and guidance where required
- The provision of key safety information (through social media and other means) to members of the public, including children and third parties whose work activities could bring them near to our assets, to give them the knowledge required to keep themselves safe from the hazards associated with the electricity network.
- Monitoring and investigating incidents to ensure we proactively focus safety information and advice on those activities identified as posing a risk to staff, contractors, members of the public, or anyone else who might come into contact with our assets.

Track record

5.69. During RIIO-ED1, WPD has worked hard to maintain a safety performance which is among the best in the industry and which has led the company to significantly outperform national workforce safety statistics. The Labour Force Survey run by the Office for National Statistics provides data for the average incident rate (number of non-fatal workplace injuries per 100,000 workers) and for the number of working days lost across all industries. The 2019/20 average incident rate for workplace injuries across all industries is 2,160 per 100,000 workers, for WPD the average incident rate is 682 per 100,000 employees.

5.70. The actual number of accidents reported by staff has reduced from 75 in 2015 to 45 in 2020/21, this is illustrated in figure SA-02.89.

WPD staff accidents during RIIO-ED1
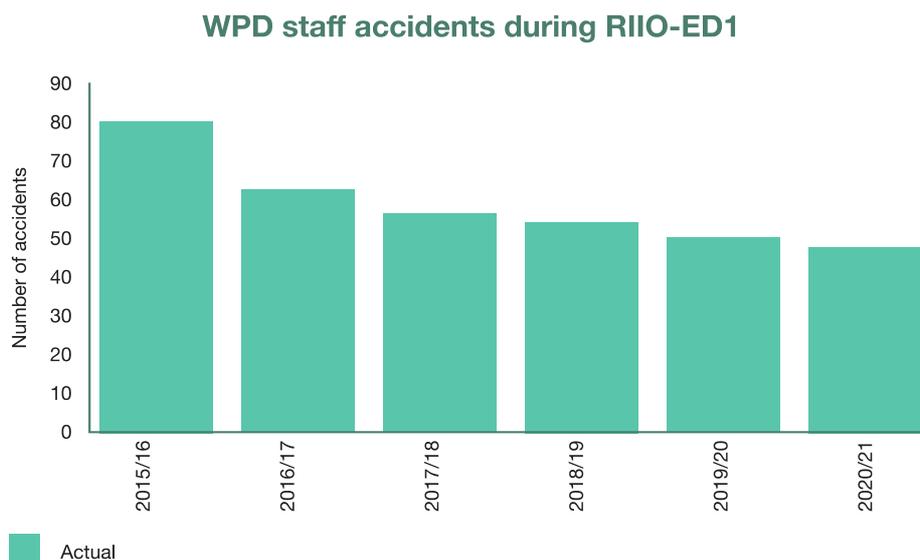
Figure SA-02.89 WPD staff accidents

5.71. It is not possible to set out a cost for every accident recorded because this will include not only the cost of any equipment repairs and the time taken to implement remedial actions, but also the cost in time and materials to investigate the potential causes (so these can be avoided in the future), the cost of additional resources for any working time lost and the unmeasurable costs associated with personal feelings, loss of staff motivation and the effect on overall business reputation.

5.72. WPD has been engaging with staff on safety issues throughout the RIIO-ED1 period. In 2018, we initiated an independent Safety Climate Survey to gauge the views of 1,800 staff - a quarter of our internal stakeholders - who were selected randomly to complete the questionnaire. We also held discussion workshops which included Trade Union safety representatives to provide enhanced feedback and review the results of the survey and comments received.

5.73. The survey results and the workshop feedback concluded that WPD has a well trained, well equipped and dedicated workforce. It also showed that the majority of staff experienced job satisfaction and took pride in their job. However, most importantly, it also identified issues that were important to staff and gave an opportunity to make additional improvements, these included:

- Developing a revised risk assessment App to help staff with the identification of hazards and production of improved risk assessments.
- Involving staff representatives in a more formal way in the development of policy changes, improved policy search facilities and video based training and reference materials.
- A clearer distinction between incident investigations and disciplinary procedures and an approach to investigation that considers the most likely outcome of an incident rather than actual harm caused.
- Improved communication of safety information which has led to an enhanced monthly briefing programme
- A dedicated mailbox to allow policy related suggestions, ideas and responses to be captured and monitored easily.
- Installation of electronic message screens in prominent communal areas in offices to help reinforce key messages for staff visiting depots.
- We have encouraged greater reporting of near misses as well as making the reporting process easier by introducing our new App, to enable information to be shared and measures to be considered to prevent similar or more serious incidents
- The reasons for our policies and procedures have been explained to staff at safety conferences and awareness sessions, to ensure we all understand the purpose of specific policies and to ensure the lessons learned from past events are not forgotten. These lessons are also included in our training courses where staff are reminded about safe working practices.
- Safety Plans have been published each year to provide clear guidance about our goals and targets.
- We have delivered safety related training sessions to over 6,500 staff through a range of courses, which include Managing Safely, Behavioural Safety, Time Management and Managing Mental Health.
- We have worked in partnership with, and sought advice from, the Health and Safety Executive (HSE) and our peers to promote health and safety in the workplace and, championing the HSE Helping Great Britain Work Well initiative with staff and contractors.
- We recognise the importance of health, implementing a number of programmes which focus on the top health risks, including mental health awareness and fitness for work.
- We have collaborated with other DNOs and the recognised Trades Unions to implement the ENA's Powering Improvement initiatives. This enables us to share best practices and raise awareness of the issues that have greatest impact on the health and safety of staff, contractors and members of the public. Different themes are covered each year to ensure a variety of safety issues are considered.

Stakeholder feedback

5.74. Stakeholder engagement events held in February and March 2020 for the RIIO-ED2 plan identified the following health and safety priorities for our staff and contractors:

- To maintain a focus on the health and safety of staff, contractors and members of the public.
- To ensure we maintain our focus on the provision of a safe and healthy working environment

- To comply with health and safety legal obligations.
- To continue to work collaboratively with stakeholders and legislators to share best practice.
- To consider the safety impact of new and emerging technologies before they are connected to the networks.
- To monitor the health of our staff and address any trends (for example mental health) and consider the safety impact of any new and emerging technologies before they are connected to our networks
- To ensure we continue to raise awareness of the dangers of electricity to the general public.
- To ensure our assets are installed and maintained in a safe condition.

5.75. These priorities have been incorporated into our plan for RIIO-ED2 as well as into an ongoing health and safety strategy.

5.76. In RIIO-ED2, WPD will look to build on the progress achieved during RIIO-ED1 and to further improve the health and safety of our staff and of anyone else who may be affected by our activities.

Maintaining a safe, healthy and motivated workforce

5.77. During RIIO-ED2, WPD plans to retain its place as a leading safety performer and will continue to aim for as large a reduction as possible in its average Accident Frequency Rate (AFR) below that achieved across the RIIO-ED1 period, in its aspiration to achieve zero harm to staff and contractors. WPD will also look for ways to enhance the measures already implemented and for any new measures we can introduce to reduce the likelihood of harm being caused to anybody who may be affected by our activities.

5.78. The hazards associated with an electricity network require strict controls to minimise the risks to those who work on it. The use of bespoke equipment designed and built to strict standards needs to be complemented by appropriate information and training. External specialist training provision is not readily available so WPD has an in-house training team that delivers craft training, operational training and specialist training to work on the network either while it has been de-energised or while it is still energised. We are also developing new training schemes to address the safety challenges linked to the adoption of new technology as we adopt Distribution System Operator techniques and practices.

5.79. WPD is constantly looking at ways to improve the effectiveness of its training and will review the content of all its existing bespoke training courses during RIIO-ED2 to ensure they continue to cover all the elements needed to keep staff safe in an efficient manner. WPD has adapted its training delivery techniques using new technology during the period affected by the Covid-19 pandemic and will continue to use these new methods where there are obvious safety, training economic and environmental benefits.

5.80. WPD will continue to carry out a comprehensive programme of site safety visits (SSVs) to monitor and discuss safe working techniques with all staff and contractors on site. These visits form an integral part of our safety management system and supplement the annual field checks required to confirm compliance with procedures. During RIIO-ED2, in addition to the SSVs carried out by line managers, we will double the number of independent unannounced SSVs that WPD Safety Advisers achieved annually during the RIIO-ED1 period for greater re-assurance of compliance.

5.81. WPD works collaboratively with staff and Trade Union safety representatives to address any safety concerns identified and by working together implement industry best practice. During RIIO-ED2, we will look for ways to improve this collaboration even further and to engage further with staff. Following the success of our first Safety Climate Survey in 2019, we will conduct two further surveys and follow up with discussion workshops across the business. Trade Union safety

representatives will provide enhanced feedback and review the results of the survey and any comments received.

5.82. We will also look to encourage reporting of near misses and safety suggestions from all areas of the business and ensure that concerns and suggestions raised are monitored and tracked to their conclusion.

5.83. WPD will continue to review the safety resources available to our staff, to identify any improvements that can be implemented to ensure staff can identify and control risks in the most effective manner and thereby reduce the likelihood of anybody suffering harm. This will include reviewing a sample of the completed site specific risk assessment reports to identify unusual hazards regularly encountered and the control measures adopted to deal with them.

5.84. The benefits to the customer from maintaining a safe, healthy and motivated workforce will include them receiving a punctual, professional and efficient service due to:

- A reduction in additional costs as a result of a reduction in accidents.
- No additional delays in the provision of service due to resources being involved in remedial action following accidents.
- No additional time lost on return visits to correct mistakes due to poor morale and motivation.
- Increased reliability of supply through a reduction in incidents that cause a supply interruption.

Improving communication of health and safety related information to staff and contractors

5.85. Effective communication is important to ensure that staff and contractors understand health and safety related messages, During RIIO-ED2, we will continue to review the way in which we communicate health and safety information to ensure we deliver effective, engaging material for both staff and contractor organisations

5.86. WPD actively participates in and leads many national working groups and initiatives related to Health and Safety. We will continue to co-operate with our peers to influence, promote improved safety and health, and to learn lessons from across the whole industry through initiatives such as the ENA's Powering Improvement and the HSE's Helping GB Work Well programmes.

5.87. Throughout RIIO-ED2, WPD will continue to deliver conferences to staff and contractors to promote and share safe working practices and lessons learned from recent events. We will include independent experts to provide advice and information about chosen safety areas linking to our own safety action plan. As part of this initiative, we will look for ways to increase the audience for these messages and involve other interested stakeholders.

5.88. We will continue to work with our contractors to ensure that safety remains a high priority for them and that their safety performance is monitored by appropriate site safety visits and contractor audits. We will share learning from safety issues at regular review meetings to influence improvements in safety performance.

5.89. WPD has a comprehensive library of documents which are shared with staff and contractors to highlight the hazards associated with working on or near the distribution network as well as measures to control the risks associated with these hazards. During RIIO-ED2, we will review all of our general health and safety documents and all of our operational safety documents to ensure the advice and instruction they provide is up to date and both clear and effective.

5.90. WPD recognise the importance of good communication to ensure the clear and unambiguous understanding of safety and health related messages. Clear understanding avoids confusion and the greater risk of accidents or near misses occurring. Good communication is also important to receive and understand the benefits of shared learning and to promote a fair and trusting culture in which staff feel motivated and thrive, thereby working more efficiently and avoiding accidents.

5.91. The benefits to the customer from good communication are that it will help to maintain a safe, healthy and motivated workforce which will provide them with a punctual, professional and efficient service due to:

- No additional costs as a result of accidents
- No additional delays in the provision of service due to accidents
- No additional time lost on return visits to correct mistakes due to poor morale and motivation
- Increased reliability of supply through a reduction in incidents that cause a supply interruption

Removal of hazards from school playing areas

5.92. Past review of incidents involving members of the public and the electricity network assets and national discussions with safety regulators, has revealed that a number of people unknowingly or unwittingly expose themselves to the dangers of electricity, either because they fail to recognise the hazards around them or are not aware of the dangers associated with electricity.

5.93. Our ongoing programmes of inspection, maintenance and refurbishment keep overhead lines in good condition and our work on overhead line clearances ensures that overhead lines are of a sufficient height above ground. This means that there is generally a low risk of failure and exposure to hazards.

5.94. However, we recognise that storms can cause damage to overhead lines and that children may not be aware of the hazards. For this reason we are proposing a new area of work, which involves undergrounding, insulating or diverting overhead lines that cross school play areas.

5.95. The benefits to the customer from undergrounding, insulating or diverting overhead lines from school playing areas will include:

- a reduction in the likelihood of children receiving an injury from inadvertent contact with electrical apparatus
- Reduced costs associated with any reduction in the number of incidents involving members of the public and electrical apparatus
- Reduction in delays to planned work resulting from resources being engaged in remedial works to deal with incidents involving members of the public
- Increased reliability of supply through a reduction in incidents that cause a supply interruption

Core Commitment 37	Increase the safety of around 200,000 children by delivering 780 schemes to underground, insulate or divert overhead lines that cross school playing areas.

5.96. Our stakeholders were clear that they wanted us to focus on preventing any risk of harm for school children. As part of the first draft Business Plan, we committed to undertake 780 schemes to reduce the risk to school children from overhead lines crossing playing fields. As part of our first draft Business Plan consultation, our stakeholders were asked what level of scheme they wanted WPD to commit to. In our consultation, we gave our customers five options and the results are shown in figure SA-02.89.

5.97. Overwhelmingly, our stakeholders supported the 780 schemes that we had proposed. However, we updated the wording of the commitment to demonstrate a clearer outcome.

School playing areas risk mitigation

Underground, insulate or divert overhead lines that cross school or other playing areas
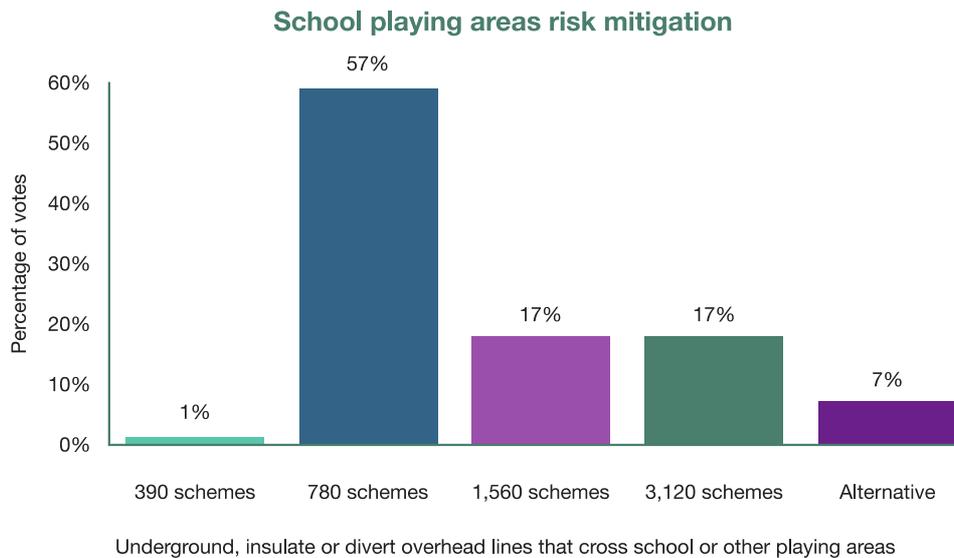
Figure SA-02.90 Stakeholder consultation feedback results – School playing areas risk mitigation

Compliance with health and safety law

5.98. WPD will install, inspect and maintain its assets in line with best practice and to ensure they comply with all health and safety regulations, continue to operate safely and do not expose anybody to avoidable danger.

5.99. We will continue to work with the Health and Safety Executive (HSE), the primary regulator with responsibility for enforcing health and safety legislation in England and Wales, to find ways to prevent accidents and promote safe working practices, not only for our own staff but also for the contractors that help to support our business.

5.100. We have committed to investigate every incident that involves a member of staff and to ensure that contractors working for WPD do the same if a member of their staff is involved in an incident while engaged in WPD activities. We will work jointly with staff and Trade Union representatives to investigate the causes of an incident and will implement any measures to help prevent a recurrence and provide a safer working environment. WPD will strive to avoid any need for regulatory intervention by the HSE, but - in the event of any incident that requires investigation by HSE inspectors - will actively co-operate to learn any lessons to improve our working procedures.

5.101. We will also investigate electricity network related incidents or accidents involving members of the public or contractors. We will assist the parties involved to establish the root causes and implement actions to prevent any future similar events.

5.102. The benefits to the customer from ensuring our activities are in compliance with legislation and that we will work in partnership with the HSE will include:

- Re-assurance that electricity distribution apparatus is being designed, constructed and operated in accordance with best practice to ensure the safety and good health of everybody affected by it
- Reassurance that the electricity apparatus is being operated in an efficient manner in accordance with best practice to prevent harm and keep costs to a minimum
- Reduced costs associated with any reduction in the number of incidents involving members of the public and electrical apparatus through adherence to legislation
- Reduction in delays to planned work resulting from resources being engaged in remedial works to deal with incidents involving members of the public
- Increased reliability of supply through a reduction in incidents that cause a supply interruption

Safety of the general public

5.103. The safety of members of the public is also of paramount importance to WPD. It is our aim that no-one involved with or affected by our activities comes to any harm. However, we know that some members of the public are not fully aware of the hazards involved in being around electricity, and that this can lead to serious injury or death.

5.104. Every year, a number of individuals come into contact with electrical apparatus and suffer a range of outcomes from minor damage to equipment to personal injuries from mild shock to fatality.

5.105. During RIIO-ED2, we will build upon the improvements already made in RIIO-ED1 to further reduce the health and safety risks associated with our activities for members of the public.

5.106. In RIIO-ED1, we have:

- Recognised that trespassing in substations can lead to injury or result in unsafe situations that may cause harm to future site visitors. We have installed enhanced security arrangements at larger substation sites and at distribution substations in response to break-ins. To date, we have improved substation security arrangements at 515 High Voltage sites, 334 Extra High Voltage and at 119 132kV sites to prevent unauthorised access.
- To help keep the public safe, we have distributed a total of 948,000 'stay safe' leaflets to people known to own land with our apparatus on it, to advise them about the measures required to keep themselves safe when they carry out any activity close to our assets.
- We have also provided information and education about electrical safety through classroom type discussion and other interactive sessions to around 64,500 school children per year throughout RIIO-ED1. We have educated 387,000 children, in all.
- We have monitored the number and type of events that have occurred which involve members of the public. We have seen no significant increase or reduction in the number of events that have occurred with the current levels of provision of information.

5.107. During RIIO-ED2, we will:

- Ensure our assets are regularly inspected and maintained so they remain in a safe and reliable condition and consider the environment in which they are situated to determine whether the risk of personal injury to members of the public has changed and if any additional protective measures are necessary.
- Monitor the information available about incidents and events involving members of the public to identify opportunities to provide proactive information and advice to help prevent loss or injury.

5.108. Continue to provide advice and information to targeted members of the public, including children, to give them the knowledge they need to keep themselves safe around electricity network.

Core Commitment 38	Keep our children safe by sending electrical safety education packs to every primary school in WPD's region and educate at least 80,000 children per year via direct learning.

5.109. Our stakeholders want us to educate school children about the dangers associated with electricity. In our first draft Business Plan, we proposed to educate 60,000 school children per year. As part of our first draft Business Plan consultation, our stakeholders were asked what level of education they wanted WPD to commit to. In our consultation, we gave our customers five options and the results are shown in figure SA-02.91.

Distribute safety information

Distribute safety advice information to stakeholders
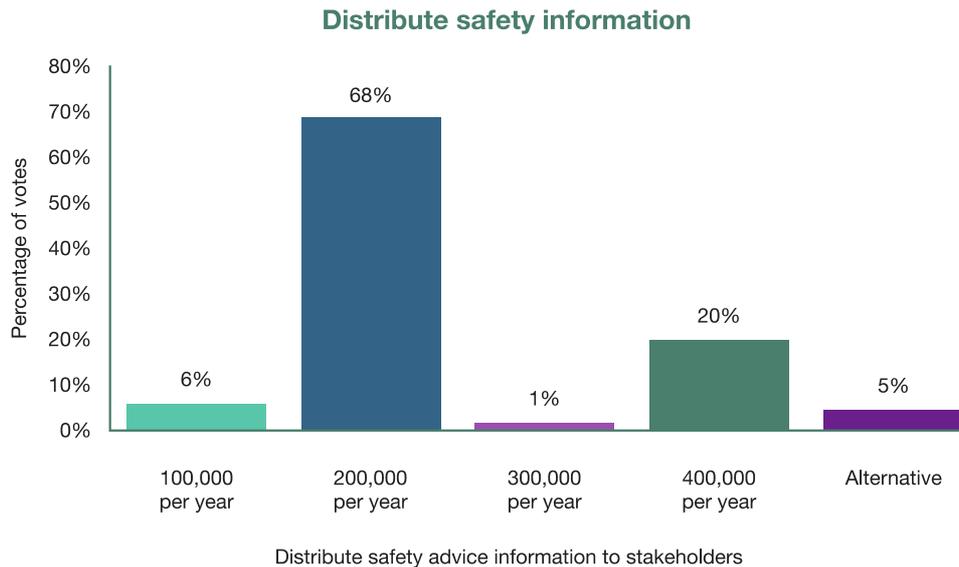
Figure SA-02.91 Stakeholder consultation feedback results – Number of school children to educate on electrical safety

5.110. Overall, our stakeholders felt that we should do more and opted for 80,000 school children to be educated every year. We have, therefore, increased the ambition of this core commitment and increased the number of school children to 80,000.

5.111. Our stakeholders and WPD believe that, by providing information and education about the hazards associated with electrical apparatus, we can reduce the number of incidents and the number of people who suffer injury from electricity. Throughout RIIO-ED2, we will continue to provide information to members of the public and landowners. We plan to deliver safety related information to over one million targeted stakeholders, making use of social media and other forms of communication, in addition to our existing safety leaflets, in an effort to reach as large an audience as possible without increasing costs.

5.112. The current level of information provided has seen the number of incidents remain at roughly the same levels during RIO-ED1. By issuing less information, there is a chance the number of incidents may rise while an increase in information may lead to fewer incidents although there is no guarantee of this outcome. Greater use of modern technology to publicise our safety messages will enable information to be distributed more widely without any significant increase in costs to the customer but may help to reduce the number or severity of incidents further.

5.113. During RIIO-ED2, WPD will continue to collaborate at a national level with peers and stakeholders to remind people in other industries and businesses, of the dangers of working close to electrical networks. Safety information will be provided, in the form of videos, social media messaging, posters and media campaigns as well as in safety leaflets, to targeted groups

or organisations whose members may be at risk of danger if carrying out activities close to our equipment.

5.114. WPD's community education programme provides information and education to young people, including children, to alert them to the dangers of electrical equipment. We will build on the achievements of RIIO-ED1 by extending our programme to reach at least a further 80,000 young people each year during RIIO-ED2. This will be achieved through school visits, learning sessions at our five permanent Safety Centres, Crucial Crew events alongside other emergency services, and our presence at popular family exhibitions and shows. The aim will be to enable young people to recognise electrical equipment such as overhead conductors, underground cables and substations and be aware of the dangers of contact with electricity from an early age.

5.115. The benefits to the customer from the provision of information to members of the public and of education for school children will include:

- Increased awareness of the potential dangers associated with electrical apparatus
- A reduction in the likelihood of receiving an injury or loss of equipment from inadvertent contact with electrical apparatus
- Reduced costs associated with any reduction in the number of incidents involving members of the public and electrical apparatus
- Reduction in delays to planned work resulting from resources being engaged in remedial works to deal with incidents involving members of the public
- Increased reliability of supply through a reduction in incidents that cause a supply interruption.

Summary of RIIO-ED2 commitments

- Work collaboratively with Trade Union safety representatives to produce an annual Safety Action Plan, aligning this with company safety themes and national safety initiatives such as Powering Improvement.
- To carry out an additional Company Safety Climate survey to build upon the learning from our first survey and use our findings to improve the safety culture of the company further.
- Use various channels (Crucial Crew, classroom sessions, exhibitions and shows) to inform 400,000 young people about the dangers of electricity and how to report safety concerns.
- Increase our distribution of safety information (excluding material that is published on social media but including printed leaflets and other electronic formats) to one million items - an increase from RIIO-ED1.
- Work in partnership with the HSE and other safety orientated stakeholders, including our peers and our recognised Trades Unions to implement safety learning and best practice at WPD.
- Investigate 100% of staff safety related incidents to an appropriate level to enable us to share learning from those incidents with our staff, contractors, peers and interested stakeholders.
- Increase the number of independent unannounced site safety visits carried out to provide assurance of compliance with safe working practices by doubling the number of visits carried out annually by the WPD safety team advisers.
- Review all of our WPD health and safety related training courses which are provided for staff and ensure that all staff have attended those which are relevant for their role.
- Ensure that safety is considered when adopting new technologies, as part of the DSO transition.

Business IT security and cyber resilience

5.116. Continuing to deliver cyber secure, reliable and resilient business IT systems is a key part of the RIIO-ED2 Business Plan. We will achieve this through further investment in, and enhancement of, our existing cyber security systems, controls and processes.

5.117. Business IT systems are 'business as usual' computer and telecommunications systems and applications. Expenditure in this area ranges from purchasing new PCs to maintaining IT server equipment and communications equipment.

5.118. As reliance on IT systems and technology has increased, so unfortunately has the volume and sophistication of cyber-attacks from exploiters such as Nation States, Organised Crime and Hackers. This in turn, has increased the risk of a possible future security breach to the electricity distribution network via its IT Systems. It is now more essential than ever that WPD protects its IT systems and data from the threat of cyber-attacks which could cause significant network disruption together with associated financial and reputational damage. Detailed plans and processes are also required to be able to respond and recover in the event of a cyber-attack.

5.119. To assist DNOs, and protect customers from the threats posed by cyber-attacks, the Network and Information Systems (NIS) directive came into force in 2018. These directives and standards must be adhered to by operators of essential services and have resulted a number of changes to the way WPD secures, maintains, supports and operates its IT systems.

Track record

5.120. WPD's approach to cyber security in RIIO-ED1 was initially reactive, relying on traditional security products and services such as anti-virus and physical firewalls. We also championed three core IT security principles to mitigate against many known IT security threats:

- No internet access from desktop PCs
- No Cloud hosted systems
- No Bring Your Own Device (BYOD)

5.121. The much publicised 'WannaCry' ransomware cyber-attack in 2017, and introduction of the NIS directive in 2018, led to WPD placing a greater emphasis on cyber security. WPD set-up a dedicated cyber security team in 2019 initially focusing on the areas recommended in the National Cyber Security Centre (NCSC) '10 steps to cyber security', before working to become NIS compliant. This team now provides a variety of security controls and services throughout the business, including:

- Incident response
- Risk management
- Vulnerability management
- System logging and monitoring
- Centre for Internet Security (CIS) benchmarking
- USB blocking
- Security Operations Centre (SOC) management
- User awareness training
- Managing NIS compliance
- System Access Management
- Conducting cyber drills
- Email forensics
- Infrastructure security

5.122. Cyber risks, as we see today, had not been identified at the planning stage for RIIO-ED1, however we have evolved in order to address these new risk. Some of the key business IT security initiatives delivered/being delivered in RIIO-ED1 include:

- Introduction of Multi-Factor Authentication (MFA) for privileged account management as part of a multi-layer approach to security.
- Implementation of a risk-based model for cyber security assessment to ensure investment and resource can be effectively targeted.
- Introduction of a Security Information and Event Management (SIEM) system for monitoring and analytics.
- A scheduled system penetration testing programme to identify IT system vulnerabilities.
- Improved physical security at WPD's data centres.
- Instigation of end user cyber security awareness programmes.
- Introduction of new supply chain cyber security guidance and controls.
- Implementation of IT asset management systems and end point security tools.
- Independent external audits to review our cyber security management system in order to identify and mitigate ongoing threats and vulnerabilities.
- Increased monitoring capabilities for IT systems including alerting and response capabilities, threat intelligence and vulnerability management.

The cyber security challenge

5.123. Changes to the way electricity is generated and consumed means that many of the current IT systems and technologies need to similarly evolve. So-called 'legacy' IT systems have limited security built into their design, often making it difficult to carry out the basic fundamentals of cyber security, such as patch management, vulnerability management, access management, logging and monitoring and the verification of data integrity.

5.124. The cyber security challenge during RIIO-ED2 will therefore be to carry out the following steps while still ensuring that WPD can continue to deliver highly resilient, reliable and available IT systems:

- Update old legacy IT systems, technologies and support processes to the NIS required standard.
- Ensure that all future IT systems and technologies are designed and implemented with cyber risk in mind and the use of extensive cyber security controls.
- Identifying and effectively managing emerging cyber security risks appropriately.

RIIO-ED2 stakeholder feedback

5.125. Our stakeholder workshops in 2020 identified a significant increased interest in cyber security and an awareness of the importance of cyber security in ensuring the continuity of electricity supplies. Stakeholders particularly asked for assurances that we would:

- Take the appropriate mitigating/corrective actions to identified network vulnerabilities.
- Create, and maintain well tested incident recovery plans.
- Collaboration and work with third party experts, including those in Government to identify threats.

Figure SA-02.92 Cyber Security Principles

RIIO-ED2 Cyber Security Plan

5.126. To meet the requirements of stakeholders and ensure that controls and processes are in place to mitigate the risk of a possible cyber-attack, WPD has adopted the NIS directive as its benchmark standard for all its IT systems, along with a principles-based approach to delivering cyber security (see figure SA-02.92).

Our cyber security IT resilience Core Commitments for RIIO-ED2

What our stakeholders said about the cyber resilience

5.127. What our customers considered to be their top priorities for cyber security is described in figures SA-02.93.

	Stakeholder Top Priorities	Core Commitment which Addresses this Priority
1	Understand where your network may be vulnerable and work to put up barriers that will prevent access	Core Commitment 39 and 40
2	Ensure all systems, procedures and processes are up to date	Core Commitment 39 and 40
3	Keep up to date on emerging threats and hacking techniques	Core Commitment 39 and 40
4	Increase your focus on network security to increase your resilience	Core Commitment 39 and 40
5	Create, maintain, and test your incident recovery plans	Core Commitment 39 and 40
6	Collaborate and work with third party experts, including those in Government to identify threats	Core Commitment 39 and 40
7	Share best practice with your partners and collaborate with other networks	Core Commitment 39 and 40

Figure SA-02.93 Stakeholder top priorities for cyber resilience

5.128. Initiatives planned for RIIO-ED2 include:

Identify

- Further developing WPD's cyber security risk model and framework as the threat landscape changes.
- Working with third parties such as the National Cyber Security Centre (NCSC), to ensure our systems remain security compliant.
- Embedding cyber security principles and controls into the supply chain.
- Comprehensive vulnerability management of our internal and external networks.

Protection

- Supporting the business from a security perspective in the trial and development of new technologies, system integration and digitalisation.
- Ensuring all systems are kept up to date with the latest operating system versions and security patches.
- Implementing new systems and processes to ensure IT assets are well managed to include the extended use of endpoint detection capabilities.
- Continuing to raise awareness and the profile of cyber security within the business.
- Greater use of enhanced data integrity monitoring tools.
- Evolving the use of our Privileged Access Management system.

Detection

- Greater use of evolving platforms which automate the collation and analysis of IT security events to greatly enhance and accelerate our detection and response capabilities.

Response and recovery

- Testing, exercising, and improvement of our IT response and recovery processes, plans and capabilities.

Core Commitment 39	Reduce the risk of data loss or network interruption from a cyber attack by continually assessing emerging threats in order to enhance our cyber security systems.

5.129. Our stakeholders identified cyber resilience as being critical in RIIO-ED2. Therefore, as part of our first draft Business Plan, we stated that we would continually assess for emerging cyber risks. As part of the first draft Business Plan consultation, our stakeholders were asked whether this was acceptable. The results are shown in figure SA-02.94.

Cyber resilience threat monitoring

Continually assess emerging threats to enhance cyber security systems to ensure no loss of data or network interruption from a cyber attack
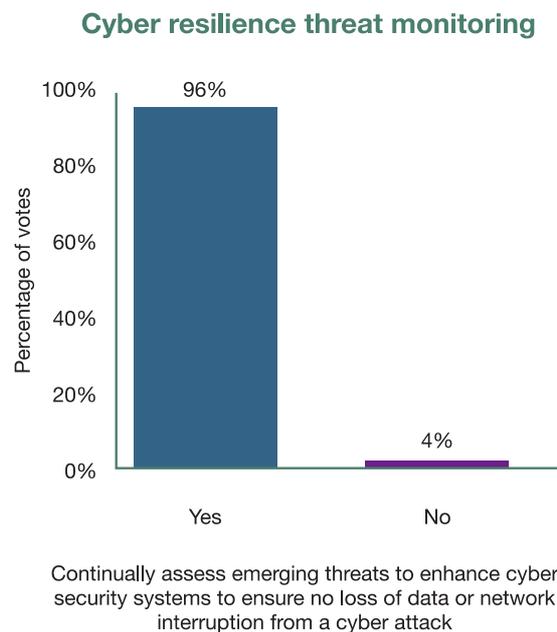
Figure SA-02.94 Stakeholder consultation feedback results – Cyber threat monitoring

5.130. Our stakeholders supported the need to do this and provided no meaningful alternatives. Therefore, the commitment remained effectively the same as the first draft Business Plan although the wording has been changed to make it clearer.

Developing our approach to IT Security during RIIO-ED2

Core Commitment 40	Reduce the risk of disruption to our operations and enhance the resilience of our IT network security as we deliver greater digitalisation, by increasing levels of threat monitoring, prevention and alerting systems, and upgrading our disaster recovery capability to ensure continuity of operations.

5.131. Our stakeholders identified cyber resilience as being critical in RIIO-ED2. Therefore, as part of our first draft Business Plan, we stated that we would increase the resilience of our IT network and enhance our disaster recovery capability. As part of the first draft Business Plan consultation, our stakeholders were asked whether this was acceptable. The results are shown in figure SA-02.95.

5.132. Our stakeholders supported the need to do this and provide no meaningful alternatives. Therefore, the commitment remained effectively the same although we have changed the wording to make it more comprehensive.

IT network security

Enhance the resilience of our IT network security by upgrading our disaster recovery capability to ensure continuity of our operations
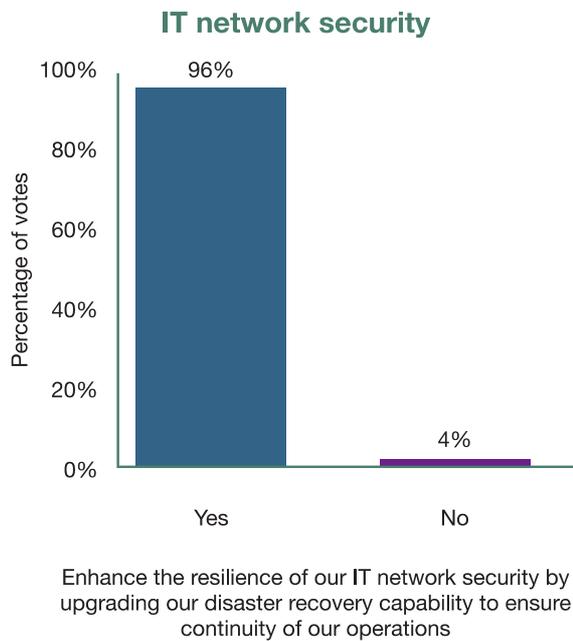
Figure SA-02.95 Stakeholder consultation feedback results – IT network security

Customer value

5.133. IT and Telecoms systems underpin the operation of the electricity network and are also the first point of contact for many WPD customers. That is why it is vital that systems remain reliable, resilient, functional and, most importantly, secure for our customers.

5.134. The success of WPD's approach to cyber security will be measured by the number of cyber incidents during RIIO-ED2. Our aim is to make sure no incidents are allowed to impact on customers.

Cyber Resilience Operational Technology (OT) Plan

5.135. The network and information systems (NIS) and technologies used to operate the electricity network are categorised as either business IT systems or Operational Technology (OT). OT is technology that communicates and interfaces with business systems and physical assets and includes systems such as our Supervisory Control and Data Acquisition (SCADA) communications system which allows us to interact remotely with sensors and monitors on the physical distribution network.

5.136. Delivering cyber secure, reliable and resilient Operational Technology (OT) is a key requirement of the RIIO-ED2 Business Plan as networks become increasingly more digitised, interconnected and at risk of a cyber security attack. This will be achieved through further investment in new OT systems and enhancement of our existing OT cyber security systems, controls and processes to specifically further align with the NCSC Cyber Assessment Framework (CAF) and to support our risk adverse approach to cyber security. During RIIO-ED2, we plan to invest further in OT cyber resilience. Any associated OT OPEX costs are currently included in the IT Cyber resilience plan

as both IT and OT cyber security functions will be support by single function, also common systems and processes will be adopted for both IT and OT.

5.137. Having a Distribution System Operator (DSO) function calls for the development of more efficient and smarter networks to manage power flows across the distribution network.

5.138. As a result of the changing use of the electricity network, traditional IT boundaries between IT (corporate systems), OT and customer-owned devices are also changing to become more interconnected. This has led to an increase in the number of end-points (PCs, smart meters, Remote Terminal Units (RTUs) that WPD has to maintain and secure.

Track record

5.139. WPD's approach to cyber security in RIIO-ED1 has been primarily focused on IT. Investment tin OT cyber security controls has been proportionate to the OT cyber security attack risk/threat level which was perceived to be relatively low.

5.140. Publicised OT cyber-attacks, such as the 2016 Crashoverride, attack against several Ukrainian power companies, raised the profile, understanding and the risk/threat level of OT cyber security attacks. This played a part in the implementation of the NIS directive, which has seen WPD placing a greater emphasis on OT cyber security.

5.141. To ensure NIS compliance and to manage the evolving OT cyber security risks, WPD setup a dedicated cyber security team in 2019 and plans to extend this team further before the end of RIIO-ED1 to also include dedicated OT cyber security resources.

5.142. The work carried out so far by the newly established cyber security team has initially focused on IT security but is now being expanded to include more OT focused activities. A number of the initiatives planned or already in progress are due to be completed before the end of RIIO-ED1. The cyber security team is also working alongside Distribution System Operator (DSO), IT and WPD telecom teams to deliver a standardised common approach to cyber security within WPD.

5.143. Some of the key OT cyber security initiatives delivered/being delivered in RIIO-ED1 include:

- Segregation of our critical systems (as detailed in the NIS directive) from the corporate network; this includes the PowerOn electricity control system.
- Implementation of a risk-based model for OT cyber security assessment to ensure investment and resource can be effectively targeted.
- Introduction of an OT Security Information and Event Management (SIEM) system for monitoring and analytics.
- A scheduled OT system penetration testing programme to identify vulnerabilities.
- Instigation of end user OT cyber security awareness programmes.
- Remote Terminal Unit (RTU) data transmission encryption.
- Introduction of new OT supply chain guidance and controls.
- Enhanced privileged user management for our OT systems.
- Classification of OT assets.
- Independent external audit to review our current OT cyber security management systems to define our current risk level, to identify and mitigate ongoing threats, vulnerabilities and to help target future and investment and work programmes.

The cyber security challenge

5.144. As WPD continues to make the transition to DSO, the growing call for 'Smart Substations' presents a difficult challenge. This is not only because of the sheer volume and multiple locations of endpoints (devices) on the network, but also because of the need to interconnect old and new IT and OT technologies.

5.145. Older OT communication devices have limited monitoring and logging capability. Many of these existing devices will therefore need to be replaced, upgraded or interfaced to new data collection hubs or security tools, to provide the two way data traffic and increased system monitoring capabilities required in RIIO-ED2. WPD will implement the most cost effective and least disruptive solution and will continue to work with technology partners throughout RIIO-ED1 to trial new devices and technologies.

5.146. Our Cyber Security Strategy is available on our website at yourpowerfuture.westernpower.co.uk/downloads-view/42048 and in appendix A14 of this document.
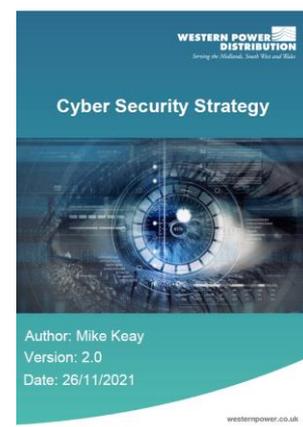
5.147. WPD's existing OT systems have restricted security functions built into their design. This means it is often difficult to carry out basic cyber security measures, such as patch management, vulnerability management, access management, logging and monitoring and the verification of data integrity.

5.148. The cyber security challenge will therefore be to carry out the following steps while ensuring that WPD can continue to deliver highly resilient, reliable and available IT and OT systems:

1. Update legacy OT systems, technologies and support processes to the NIS required standard.
2. Ensure that all future OT systems and technologies are designed and implemented with cyber risk in mind and utilising extensive cyber security controls.

RIIO-ED2 stakeholder feedback

5.149. Our stakeholder workshops in 2020 identified a significantly increased interest and awareness in cyber security resilience. Stakeholders particularly asked for assurances that we would:

- Take the appropriate mitigating/corrective actions to identified network vulnerabilities.
- Create, and maintain well tested incident recovery plans.
- Collaborate and working with third party experts, including those in Government, to identify threats.

RIIO-ED2 Cyber Security Plan

5.150. To meet the requirements of stakeholders and ensure the necessary controls and processes are in place to mitigate the risk of a possible IT and OT cyber security attack on WPD, we will focus on these five key areas during RIIO-ED2:

- Define and categorise OT in terms of the technologies, devices, processes and function to understand the OT landscape.
- Understand the OT risk and monitor threat landscape.
- Implement appropriate OT monitoring, logging and access controls.
- Develop and test incident response and recovery strategies/plans.

- Carry out threat hunting activities such as looking for unusual patterns of device communication, etc. to proactively identify and address threats that may have evaded security systems.

Developing OT resilience during RIIO-ED2

5.151. In RIIO-ED2, WPD will migrate/upgrade existing OT systems, devices and services to new technologies where it is cost effective and beneficial to do so. Where this is not possible, we will use additional devices to interface to existing systems to perform the required security functions.

5.152. As well as taking into account cost, resilience and reliability, when implementing new technology delivery platforms, it is also critical to consider security and risk appetite. WPD uses a model which rates risk, based on a set of cyber security benchmarks and the criticality of the system. Cyber security controls such as logging and monitoring are then applied accordingly, based on the risk rating.

5.153. The detailed forecast for the RIIO-ED2 OT cyber resilience plan has been built on:

- Identifying NIS long-term goals/requirements.
- Working with PricewaterhouseCoopers (PwC) to understand the vulnerabilities and risks specific to WPD's OT infrastructure and developing risk targeted future work/investment roadmaps.
- Understanding IT cyber security best practice and how this is applied in the OT environment.
- Understanding what tools and technologies are required to transition to a DSO.
- Identifying critical national infrastructure related telecoms components and ensuring they are fit for purpose.
- Incorporating new initiatives to improve business functionality and effectiveness.
- Identifying opportunities for making efficiency savings.
- Working with the NCSC and other third party security specialists to establish best practice.
- Listening to stakeholders' requirements and expectations.

Customer value

5.154. OT underpins the safe operation of the electricity network which is why it is key that OT systems remain reliable, resilient, functional and, most importantly, secure from the risk of possible cyber security attack.

5.155. Cyber-attacks targeted at WPD are a real possibility and could have significant customer impact in terms of possible data breaches and/or disruption to power supplies. Therefore doing nothing is not an option, instead investing in the security of IT and OT systems and technologies is fundamental to the continued delivery of a resilient and reliable electricity network.

5.156. The success of WPD's 'one plan' approach to delivering cyber security will be measured by the number of cyber incidents during RIIO-ED2. It is our aim that no customers will be affected by cyber security incidents.

Workforce resilience

5.157. We regard our employees and workers as "our Company" and we believe that our success in the electricity sector to date is due to the positive and focussed actions of our people. Our employees' safety and wellbeing is at the heart of every activity we undertake.

5.158. At WPD we work collaboratively with our Trade Union colleagues to provide a working environment that allows employees to develop, be motivated to succeed, and progress within a team structured organisation where empowered employees can and do have the opportunity to flourish.

5.159. We believe that setting expectations early at a new employees' induction, and responding to a changing world of work has prepared our managers and team members to respond to the challenges of our 24/7, 365 days a year operation.

5.160. Our goal for the future is to be a "stand out employer" both regionally and more widely for people looking for an opportunity to work in the exciting, digitalised, environment conscious and changing world of electricity distribution and system operation, will want to be part of.

5.161. We are conscious that we have been a "traditional" employer, but in order to compete for talent in the more flexible, diverse and changing world of work then we need to look to the future, and re-evaluate how we become "an employer of choice."

5.162. During RIIO-ED1 and in prior review periods, our vision was "To Be World Class in Power Delivery" and we promoted the following values that underpinned our business style

5.163. Our values are shown in figure SA-02.96.

We Act With Integrity	*We tell the truth* *We keep our promises* *We deal fairly with everyone*
Customer First	*Our business is customer satisfaction – First Time Every Time* *We will think like customers*
Business Awareness	*….. and act like owners*
Great Place to Work	*We are a first name company* *We enjoy our work and celebrate our successes* *We seek opportunities to learn* *We do not compromise safety and health*
Teamwork	*We communicate openly and value honesty* *We listen* *We respect all opinions and expect differing viewpoints as we work together towards common goals* *We emphasise co-operation*
We Deliver Results	*We set high goals for ourselves* *We take personal responsibility for success* *We act with speed, decisiveness and individual initiative to solve problems* *We use change as competitive advantage*
Leadership	*We lead by example*
Citizenship	*We are committed to the environment and the communities we serve*

Figure SA-02.96 Our values

5.164. Using these values together with our key goals for success (see figure SA-02.97) to:

- Consistently Provide Excellent Customer Service
- Improve the Reliability of our Distribution Network
- Operate with Speed and Efficiency in all we do
- Generate Income through Utilisation of our Existing Assets
- Employing Staff that are Well Trained Highly Motivated and are Personally Responsible for Results
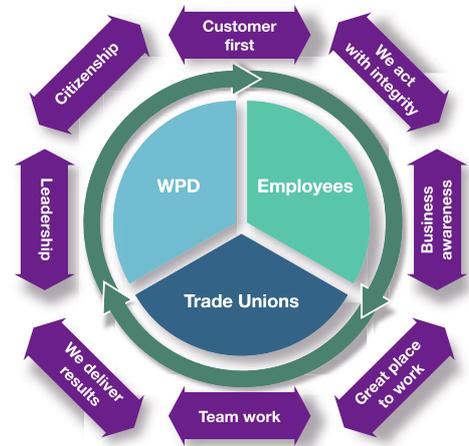
Figure SA-02.97 Key goals for success

5.165. We have provided a strong platform for WPD, and our success was evident, and allowed for WPD to sit at the top of the performance tables of our competitors in reliability, safety and customer service.

5.166. Moving forward into RIIO-ED2, we offer proposals that focus further on our people, our customer communities and our stakeholders, and whilst we still aspire to be at the top of our game we are open to challenging our vision and values to align with the changes happening in the UK, the EU and globally.

Our workforce and structure

5.167. Our workforce consists of a flat geographically based team structure (see figure SA-02.97) with minimal layers of management, and some functional activity (e.g. plant and equipment teams) coupled with corporate support functions.

5.168. This flat structure makes decision-making and problem solving a quicker and simpler process, and empowers employees to take personal responsibility and act within an agreed framework of authority.

5.169. A typical geographical licence area would consist of a Network Services Manager (NSM), 6 to 8 Distribution Managers (DMs) responsible for 4 to 8 Team Managers (TMs), who have operational responsibility for day to day activities such as - maintaining existing assets, planning and delivering network improvements, responding to faults and providing new connections for delivering a safe, secure and reliable electricity supply through the management of their teams, consisting of craftspeople and operators, technicians, planners, engineers and specialists and team supports.
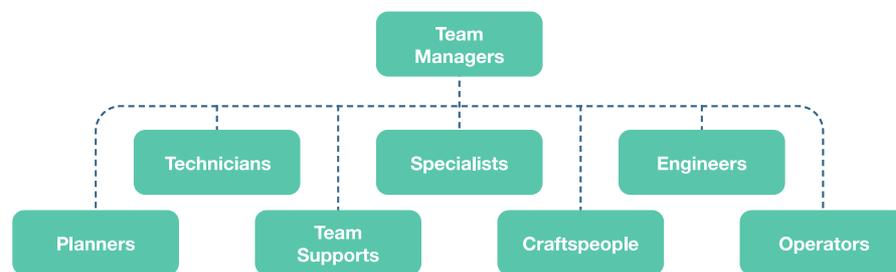

Figure SA-02.98 Network Services' team

5.170. The Team structure is supported by corporate functions such as Finance, Logistics, Information Technology, Communications, ER, Payroll and Pensions, Safety, Training etc. but the team ethos remains unchanged with minimal layers of management, employee empowerment and local issues being resolved locally.

5.171. At the start of RIIO-ED1 WPD's total work force was 6,467 employees (see figure SA-2.99) and has remained fairly static to date with an average employee age of 41.5 years. During this period (to 31 March 2021) our turnover rate to date has averaged 4.23% a year and is slightly higher than in previous years due to a higher proportion of leavers (mainly due to retirements) during RIIO-ED1.

Gender Profile			Types of Roles								
Male	Female	Total	Executive	Senior Manager	Manager	Supervisor	Professional	Administration	Customer Service	Craft	Total
5,511	956	6,467	4	87	263	837	1,138	452	522	3,164	6,467

Age Profile/Average Age							
20 and Under	21 to 30	31 to 40	41 to 50	51 to 60	Over 60	Total	Average Age
115	1,485	1,316	1,726	1,559	266	6,467	41.5

Years of (Continuous) Service Profile/Average Length of (Continuous) Service								
Less than 1	1 to 2	3 to 5	6 to 10	11 to 15	16 to 20	Over 20	Total	Average Service
330	707	728	1,294	768	258	2,382	6,467	16

Figure SA-02.99 Workforce at the start of RIIO-ED1 (1 April 2015)

5.172. Our male to female split has increased from 85% to 15% in April 2015 to 83% to 17% in April 2021, an increase of 190 female employees across many roles including technical apprentices and engineering roles. This increase has occurred in the last four years and is a successful result of the considerable efforts by the recruitment team to attract more females to our organisation. Whilst this ratio in female employees has increased, our most recent gender pay gap report (see Section 4) saw a widening of our gender pay gap. We expected this as the job roles where we see more females being employed is largely in trainee and lower graded posts – it will take some time for these female employees, especially the female trainees to reach a pay level that will impact the gender pay gap, but is a positive marker for the future.

5.173. This increase in successfully attracting a greater female population is echoed in the Women in Engineering report (WES) where it is identified from a survey conducted in 2017 by Women in Science and Engineering (WISE), that 11% of the engineering workforce are female - a shift from 9% in 2015. 2019 statistics from WISE indicate that the percentage of women in the STEM workforce has dropped whilst WPD are bucking this trend by showing a steady increase.

5.174. We have also increased our ethnic communities - adding a further 30 employees from ethnic minority groups during since 2015. This is based on our data that we currently hold which is not a complete data set due to the non-mandatory nature of providing this information (see figure SA-02.100).

Ethnicity	Total	Grouped totals
Iranian	1	1
Mixed race	14	14
White UK/European	2,512	
White Irish	9	
White African	1	
White Afrocarribean	5	5,316
White Oriental	4	
White other	10	
White UK	2,775	
African White/Black	1	1
Asian Indian	56	
Asian other	15	
Asian White	2	
Asian Bangladeshi	3	91
Asian British	1	
Asian Chinese	2	
Asian Pakistani	12	
Black African	10	
Black Afrocarribean	14	
Black Asian	3	28
Black UK/Irish	1	
Carribbean White/Black	4	4
Chinese	4	4
Undisclosed	1,008	
Total	**6,467**	

Figure SA-02.100 Ethnicity breakdown of the WPD workforce

5.175. We recognise that some of the changes in the makeup of our workforce could be seen as small with no real positive direction of travel. The electricity distribution industry continues to fall short of other more diverse sectors such as retail and Information Technology. We are not complacent however, and are committed throughout the remainder of RIIO-ED1 and RIIO-ED2 to make significant changes to see a real and sustained difference.

5.176. Our apprenticeship and trainee intakes over the period amounted to 713 employees, and is still a major part of our recruitment strategy for the future.

Our culture

5.177. WPD's culture fits a typical definition of a task organisational culture which has developed over a 30 year period following the privatisation of the electricity industry in the early 1990s, the acquisition of WPD by US owners in the mid-1990s, and the takeover of other Distribution Network Operators by WPD in 2000 (Hyder Group) and 2011 (Central Networks). More latterly the acquisition of WPD by National Grid. We are focused on our tasks, and seek to bring together the right resources and people, to succeed in our key goals for success and we utilise the unifying power of our team ethos and organisational structure. We deliver excellent service to our customers in whatever activity we are engaged in, we treat customers as they would like to be treated.

5.178. This task culture is underpinned by recognising that we are judged by the actions of our people. We work hard to ensure that we employ, train and develop our people who in-turn demonstrate a desire to deliver the best possible results for our customers, but in a team environment that is supporting, motivating and nurturing. This is borne out in our consistently low staff turnover rates at just over 4%, and in our staff survey where over 89% of employees stated that they planned to stay working for WPD. In addition 79% of our employees stated that they are proud to work for WPD.

5.179. Within WPD, we are proud of our "team, task-oriented culture" and "traditional" approach. What do we mean by traditional? Traditional, in the sense of the way we conduct our business. This has not changed markedly over the generations. Our values and beliefs are unchanged but are now developing to meet the demands and differences in business direction, and we look to embrace this changing world of work to a more modern, diverse, and flexible way of working for our employees, ensuring resilience against future challenges.

5.180. During mid-2019 we engaged with a company (DNA) to ensure that our culture remains appropriate for our business. The business had moved on and whilst our business purpose of providing a safe, secure and reliable electricity network has not changed, our workforce, business size, and area, has increased, and we face a different business model that moves us towards being a Distribution System Operator, but recognising that UK government's desire to become carbon neutral by 2050 and embracing digitalisation in order to react quickly to changing customer and energy demands.

5.181. DNA met with many employees from a number of locations within WPD to hear in their own words why they bring their talents to Western Power Distribution every day, how they feel about their employment experience and how we might adapt our approach to attract that to the right people.

5.182. DNA found that "there's a strong community culture within Western Power – a culture that has been nurtured by every employee over many years, lived, breathed and developed, not something handed down from upon high". It identified the culture as unique whereby "everyone has time for each other, there is communal warmth, it doesn't feel pressurised or stressful and when it does you are supported".

5.183. Some of the comments below explain "why WPD?" and endorses that if you come to work for WPD then you are part of a team that welcomes, supports and values you as an individual:

- "There are 6000 employees here who are a family, not a corporate where too many people are in it for themselves working on their own. Team work is the ideology of the Company."

- "This really is one of the nicest places I've ever worked, everyone is genuine, looks out for each other. Health and safety plays a huge part given that electricity can kill you, but the care and camaraderie go a lot further than that. There's help and support outside of work too. People go through bad times or life incidents, but whatever you might need help-wise, it is there."

- "Team Managers have a great role to play. They're entirely non-judgmental. Male or female, old or young, your ethnic origin – it doesn't matter, you have a voice and a position here. I've experienced real racism in other places I've worked in the power industry, it would never happen here."

- "The money, the security, the family feel all count for something. There's a genuine warmth here that you do not see in other businesses."

5.184. We do not fall into a false sense of security that everyone is happy all of the time. We continue to use our employee satisfaction survey to review our culture, and the feedback that this provides; along with employee feedback through team meetings, annual performance and development reviews, exit interviews, local and Company level trade union meetings etc. and we take steps to act on the feedback we receive.

Our Employee Relations team

5.185. Our Employee Relations team consists of an Employee Relations Manager, a centralised recruitment team, an occupational health team based in four regional areas and employee relations generalist teams based in four regional areas. Our aim is to support our managers and employees within a team based environment, underpinned by best practice employment policies and procedures that support the activities of the changing business but aligning with the whole employee lifecycle from that first contact, through employment, and to retirement.

5.186. At WPD we value the collaborative approach to employee relations that our collective bargaining arrangements provides. We recognise, the GMB, Prospect, Unison and UNITE trade unions, and the Company and Unions have an established framework that operates under The Electricity Business Forum (EBF) and Local Electricity Business Committees (LEBCs) to define the terms and conditions of employment for team members through the Electricity Business Agreement. (EBA).

5.187. We work proactively with our trade union colleagues to balance business requirements with fair terms and conditions, in a secure working environment with added benefits.

RIIO-ED1 progress overview

5.188. Our workforce resilience strategy into RIIO-ED2 began in RIIO-ED1 when we embarked on a journey to ensure a future workforce that is empowered, highly trained, diverse in nature with modern views, and which delivers high quality results and performance. We continued to use an insourced workforce to deliver the majority of the work because we have found that our employees not only provide excellent service to our customers as evidenced in our customer service results, but they also score highly in the Broader Measure survey feedback in how our employees treat our customers when we interact with them.

5.189. Our success in RIIO-ED1 is part of a carefully developed plan that proactively evaluates our future resourcing needs, recognising the known changes to the industry, such as those in Distribution System Operator (DSO) functions, and the challenges that this brings in terms of the new roles and different skills. These changes coupled with an aging workforce meant that we took steps to create new training schemes, (in addition to our craft apprentice and graduate training schemes) to ensure that there are adequately trained staff to support the business. These new schemes included Planning and Design traineeships, Engineering traineeships and new apprenticeships to cover telecoms, information resources, and DSO trainees, ensuring that we have ready trained employees to build on our workforce strategy going forward and in readiness for further changes.

5.190. Our strategy, to continually balance our workforce to meet our business needs efficiently, remains a priority and is backed up by a range of opportunities for staff to develop and learn. These are supported by our consultative arrangements with our recognised trade unions, formal personal development reviews (held annually), and annual succession planning and secondment opportunities. We also look to support lateral moves where possible.

5.191. This focus on reviewing our resourcing needs, work methods, and workforce resilience underpins our key goals for success, provides a strong foundation for new employees and team members to develop, stay motivated, progress in the Company, and supports diversity, creativity and innovative thinking. We always welcome new ideas and embrace modern views where we can. For example we are conscious that younger employees expect more employment fluidity and may move from job to job. We therefore expect some to leave, but we look to retain them by offering career progression in a diverse, equal and inclusive environment and by encouraging

development within WPD. A typical example would be the internal traineeships, whereby the employee may not have the entry qualifications to apply for the traineeship, but we have now allowed those who have gained relevant experience in their current role for a set period, (3 years) to apply for these roles subject to assessment, and interview before advertising externally. These opportunities give existing employees the opportunity to progress within WPD and potentially stop these employees leaving.

What have we done?

5.192. To show our achievements and progress during RIIO-ED1 we have regularly reviewed our employee working practices to provide that "great place to work" for our team members and we continually invest in our employees by ensuring that our business focus -"to be world class in power delivery" is supported by a range of people related policies, procedures and initiatives to motivate, train, develop, and improve our employees' contribution to the success of the business.

5.193. Our key initiatives achieved in RIIO-ED1 include:

(a) Our Recruitment Team

5.194. In order to address different recruitment practices across the expansive WPD geographic footprint, we have brought together our recruitment requirements into a centralised recruitment team. This has resulted in a more consistent approach to recruitment across all four licence areas, and utilises the latest recruitment and diversity, equality and inclusion practices into our processes, incorporating up to date best practice.

- We have also implemented an online applicant tracking system, (ATS) which is utilised by both internal and external applicants. It has functionality that allows applications to be anonymised, which in turn removes unconscious bias from the selection process.

- Created a Careers website that supports our recruitment efforts includes a personal profile of some of our team members, under the "Our People" banner. These personal profiles explain why these employees were attracted to WPD, their role, our culture, what's the best thing about working at WPD? It also incorporates our new ethos "The Power to ……. Be part of a team….. Realise your potential…." This Employer brand, "The Power To" goes to the heart of what WPD wishes to achieve for our employees during their career and was developed following research with managers and employees throughout the business.

- As part of our focus on our recruitment practices we reappraised our annual Apprentice and Trainee recruitment campaigns. By doing so, we achieved a saving that more than covered the costs of our ATS contract for a period of 3 years, in one year.

- Early in 2020 we engaged with some of our recruiting managers and current graduates to understand what they are looking for from our graduate recruitment process. This included a review of our advertising, assessment process and interview questioning that resulted in a more streamlined and less manual process. Our goal was to attract a wider pool of applicants and this was successful as our graduate applications rose from 59 applications for 3 locations in 2019 to 289 applications for 5 locations in 2020.

- Our impression is that those seeking an apprenticeship, certainly rank WPD in their choice of employer as in the latest apprenticeship campaign (2021) we attracted 16 applications for each vacancy with a small increase in female applications. Attracting females to apply for these apprenticeship opportunities is an important focus area for the remainder of RIIO-ED1 and RIIO-ED2.

- We have totally re-evaluated our on-boarding process, which now includes a "day one" get to know your location, team type induction, followed by a day-long formal induction at one of our training centres, followed-up by three computer based training reviews at 1, 3 and 6

months after joining. We sought views from new employees, trade union colleagues and managers as well as researching the Advisory Conciliation and Arbitration Service (ACAS) and Chartered Institute of Personnel and Development (CIPD) best practice guidance and included these views and best practices in our on-boarding process.

(b) Diversity, Equity and Inclusion (DEI)

5.195. We have recognised that diversity within our workforce falls short of representing minority groups - possibly due to a lack of appetite to change by managers who are of a mind-set to appoint "people like me". Our collective culture needs to shift to an acceptance by our current managers at all levels and team members that we are all people with skills, gifts and talents to offer WPD regardless of colour, sex, age, disability etc. We believe that giving this message from the leadership team and through all levels of managers and supervisors that a culture of shared norms will develop and continue to build through all levels of the business.

5.196. As a result, WPD has a DEI strategy led by our CEO and all directors and senior managers to increase diversity across all business areas going forward. We are seeking to build on our diversity, equity and inclusion action plan to develop a more inclusive and diverse culture in all areas of our business.

5.197. In 2018 WPD appointed our first female director, - not just female, but a female who had come through our Graduate Engineering Traineeship. To further our plans we have appointed a DEI Champion (A dedicated resource) within our Recruitment team.

5.198. We realise that a marked shift of cultural change to increase diversity in WPD is not going to happen overnight, but this allows us the time to bring about the changes in our messaging, actions and behaviours to accept and embrace this change in culture, and to explore further ways of attracting and maintaining a diverse workforce. Some of the communities we serve are rich in diversity and this allows us to get in and amongst these communities to attract people of colour and ethnic minority groups to work at WPD and bring their skills, gifts and talents to work with them.

5.199. We have updated our DEI, and Anti-harassment policies, to bring them in line with our current thinking. These policies confirm our commitment to a balanced and diverse workforce and reaffirm our non-tolerance of discrimination and harassment in the workplace.

5.200. We have also reviewed our job vacancy advertisements to ensure that the language used appeals to a diverse range of applicants. We were pleased to receive feedback from WISE (Women in Science and Engineering) that our current vacancy notices are not targeted particularly at any individual groups, and we are have worked with Stonewall to further enhance our policies. We are already seeing an increase (number) in a more diverse set of applications.

5.201. To support our DEI strategy, we have made alliances with external organisations to work alongside and promote our desire to have more diversity in senior, middle and junior management roles as well as in all other roles within the business. These alliances are with WISE, the Institute of Electrical Technicians (Women's Branch), Disability Confident, Change 100, Career Transition Partnership, Stonewall, and Age at Work Programme (part of the Business in Industry Initiative). We will continue to expand our partnerships and strive to include other organisations in the future, through employee Networking Groups.

5.202. We will continue to involve our trade union colleagues and our employees in our diversity action plan.

5.203. In 2019 we welcomed our first graduate under the Change 100 scheme. Change 100 is an award winning programme of paid summer placements and mentoring for disabled students and

recent graduates. It provides these students with a work experience placement that aims to unlock their potential and provide them with skills that are transferable. We have welcomed a Change 100 graduate student to our corporate communications team in 2020, and another graduate is due to start with our Electricity System Management team in the summer of 2021.

5.204. In addition we have signed up to a new initiative – 10,000 Black Interns. An ambitious programme to help transform the prospects of young black people in the UK offering training and development and mentoring for paid internships to black students over 5 years.

5.205. During 2020, we produced a video of our female STEM employees and trainees, in an effort to promote our desire to be a more diverse workforce. This is being shown on our careers website to reinforce our message - that we welcome women from a diverse pool of applicants to join our Company. We have achieved success as demonstrated by the increase in our female trainee cohort in the last two years whereby we attracted more applications, and appointed 12 new female trainees.

5.206. Our female population has increased by more than 10.5%, in the (4) years since we started to report our gender pay gap, which highlighted the need for more targeted recruitment practices.

5.207. In July 2020 our CEO confirmed his lead in supporting our diversity, equity and inclusion initiatives, and launched our Respect Charter affirming WPDs commitment to working together by being professional and acting with integrity, promoting and championing fairness, respecting and valuing differences and treating everyone with courtesy and respect. We now plan to build on expressing our messages in all our communications that all creeds, colour, age, sexuality, age and genders are welcome and valued at WPD.

5.208. Whilst there are no numerical targets included in our Plan for ED2, we have committed to increasing diversity across our workforce from now through to the end of ED2. We will channel our energies in increasing the diversity of our pipeline of applicants for positions, by making WPD more attractive to all protected groups and by continually reviewing our policies and practices to reach that wider audience. By this means diversity will occur naturally and will determine our ongoing strategy for increasing diversity going forward

(c) Employee satisfaction survey

5.209. Approximately every two years we invite our employees to participate in our employee satisfaction survey to understand what our employees think about our business. Late in 2019 we completely reinvented the survey. For a period of time we had been using the same survey so that year on year comparisons could be made. However, as the business environment is changing, we revised the survey to gain useful and helpful information to inform our future direction. We increased the number of questions from 11 to 53, broken down into 14 distinct categories. More than half of our employees completed the survey and the results provided WPD with five overall "opportunities to explore" headings including:

Positive outcomes from our most recent survey include:

- 73.9% of employees state that there is clarity in direction of our business
- 79.8% of employees have pride in working for WPD
- 78% of employees feel engaged
- 82.5% of employees rated safety and wellness in WPD
- 91% understand WPD's commitment to exceptional customer service

Opportunities to explore
- 1.8 only 56.8% of employees feel our Company is diverse and inclusive
- 48% of employees feel there is little growth and development

Figure SA-02.101 Employee satisfaction survey results

- Opportunities for staff to provide feedback
- Training and development
- Quality of internal communication
- Promoting a "thank you" culture
- Evidencing actions as a result of the survey

5.210. These results, summarised in figure SA-02.101, provide a new foundation on which to improve employee satisfaction, and we have identified a number of areas where we can measure our response in the remainder of RIIO-ED1 and through RIIO-ED2: E.g. diversity, employee engagement etc.

5.211. An Action Plan has been developed and will be progressed into RIIO-ED2 particularly in the area of growth and development where 48% of employees feel limited to progress. Some of the actions include:

- Having analysed this data further we have concluded that our changing environment will bring opportunities for new job roles for DSO, low carbon networks and digitalisation together with opportunities to multi-skill and up-skill our existing workforce.

- A positive response, which is encouraging for our retention statistics, is that 89% of respondents expressed their commitment to the Company by confirming that they intend to stay with WPD for the next 12 months. For the year ending 31 December 2020, the actual number was higher at 92%.

- We will conduct a second survey during RIIO-ED1 to assess if this view remains following the interventions we have made following the initial newly formatted survey. Our aim is to maintain our industry leading retention rate in RIIO-ED2, and is a useful indicator for future workforce planning.

5.212. Our goal in conducting these employee surveys, in addition to receiving quality feedback, is to increase the response rate from just over 51% to at least 80% or even more – we want our employees to have a voice in WPD and a say in their future. A survey on homeworking during the COVID -19 pandemic resulted in a response rate of over 74% of those surveyed and provided feedback for positive actions by the Company to develop and launch a hybrid homeworking policy in December 2020.

- We have committed to giving each employee 2 paid days per year to become involved with community projects that support local initiatives and events.

- We will review our survey each time it is issued to measure areas that have changed – got worse, stayed the same or got better – especially in areas where it has been highlighted in previous surveys where opportunities to develop have been highlighted. Training and development initiatives to support the feedback relating to lack of growth and development are explained earlier – namely Planning and Design traineeships, Engineering traineeships and new apprenticeships to cover telecoms, information resources, accountancy trainees and DSO trainees are all positive actions that have been initiated as part of employee feedback.

(d) Training and personal development - Employees and managers

5.213. We are a company that is committed to give every employee the opportunity to grow and develop, not just our apprentices and trainees. We are fortunate to have three dedicated training facilities in the Midlands at Tipton and another two in the South West at Taunton and Dunkerswell. This dedicated resource allows for all operational and non-operational training in an off-site purpose-built environment.

5.214. Traineeships are also open to our internal team members who demonstrate a level of entry qualifications and experience, and 78 team members have been successful in gaining these traineeships since we introduced this criteria. This is an example of how we have listened to our employees who may not have joined WPD to necessarily progress, but once given the chance have taken the opportunity and will become our crafts people and engineers of the future.

5.215. In conjunction with our trade union colleagues, we devised a matrix of the required qualifications and experience criteria for each of our operational roles. The matrix show the minimum qualification for each of the roles to enable an external candidate to apply for a position, but for internal applicants the matrix gives a lower level of qualifications but allows for a minimum period of experience in a relevant role to promote personal progression in line with our development strategy. The internal candidate is then sponsored by WPD to gain the level of qualification required for the role during their training period.

5.216. Where the relevant qualifications for a role have not been achieved – e.g. a relevant level 4 qualification for a team manager role, we will offer the facility for a cohort of employees to apply to undertake a relevant qualification in readiness for applying for future roles.

5.217. We have provided leadership training for our middle and senior managers that was focused on the impact our leaders and managers have on their teams and the wider workforce. The training invites the delegates to examine how they are motivated, learn, and respond in differing situations.

5.218. In 2020/21 we provided a comprehensive diversity training package to all of our managers, (Approximately 380) and those involved in any recruitment activities. This is provided in the format of 4 separate short courses that build on understanding the behaviour around unconscious bias, leading to the legal position of "getting it wrong". We plan to expand training to all employees in the coming years, and we have incorporated diversity training into our induction for new employees. Through these training initiatives we recognise that a culture of shared norms by all, become embedded in our Company.

(e) Health and wellbeing

5.219. WPD is committed to the wellbeing and safety of our team members and we promote safe working practices in everything we do to avoid accidents, incidents and any suffering due to work related activity. We believe that a healthy workforce is a happy workforce and we work hard to promote health initiatives. Our dedicated in-house Occupational Health (OH) team consisting of trained nurses and advisers who deal daily with case management and health surveillance, bespoke training, health information and advice to staff.

5.220. We are mindful that mental health is a huge concern both in the UK but more locally within the work place and we have taken the initiative to provide training in mental health awareness and management of stress to both managers and trade union representatives – supported by a mental health policy and procedural guidance to affirm this training.

5.221. During 2020, we trained upwards of 320 middle and senior managers, and trade union representatives in mental health awareness to act as mental health first aiders. We have seen a measurable impact on absence figures through these initiatives. In the period from 1 January 2015 to 31 December 2019 our incidents and work days lost to mental health illness has increased year on year, and as a result of our initiatives and support for mental health the latest statistics for the period from 1 January 2020 to December 2021 shows a fall of over 16% of the total workforce for incidents of mental health in the previous 12 month period from 441 incidents in 2019 to 369 incidents in 2020, and an incident rate reduction from 6.72 incidents per 100 employees in 2019 to 5.6 incidents per 100 employees in 2020.

5.222. The Occupational Health team have a dedicated "switched onto health" page on the Company's SharePoint site and this provides a wealth of information, videos, podcasts etc. that support physical and mental health topics for our team members to access. Each month we focus on an area of wellbeing – e.g. diet and nutrition, working in the sun, or sleep and rest, as examples and we provide advice and information thorough our Occupational Health team, with communications through our SharePoint, office TV screens, occupational health notice boards and staff magazine.

5.223. In addition, we utilise resources aimed at keeping our team members well and at work including:

- Our Employee Assistance Programme (EAP) provides confidential telephone and face to face counselling on a range of matters that may affect a team member either in their work or in personal life. The service is available to all team members 24/7 and is utilised by employees above industry benchmarks.

- Cognitive behavioural therapy (CBT) to compliment the EAP for cases that are assessed as being suitable for this type of counselling.

- Managed Back Care Programme – which offers physiotherapy support for team members with muscular skeletal symptoms.

5.224. Whilst we recognise it is inevitable that team members will be absent from time to time, these support initiatives help us to keep absence due to sickness below 4 days of absence per employee per year, which is our current target.

RIIO-ED1 summary

5.225. In reviewing our workforce resilience performance so far in RIIO-ED1, we undertook a range of initiatives to build on and enhance an already well-functioning team. We took a holistic view of how we were operating and sought to assess and improve on how we were carrying out these activities and how we could better them in light of a changing industry. In assessing our performance we achieved successes as follows:

- A review of our recruitment processes resulting in a higher number and level of applicants for nearly all positions, and resulting in a small shift in our male: female ratio, and consistency of application and practice across all areas
- A more detailed on-boarding experience has resulted in new employees understanding how WPD operates, our vision values and shared norms.
- The appointment of a dedicated resource for DEI that commits WPD to a whole range of actions to take forward into RIIO-ED2.
- Devising a diversity, inclusion and equity strategy, with clear direction and led by the CEO and directors and which lays the foundations for WPD to embark on the WISE 10 Steps framework. This included the launch of our Diversity Charter and the confirmation that WPD is committed to a diverse, inclusive and equal workplace.
- A complete re-write of the employee satisfaction survey, resulting in positive and less positive feedback that we can work on in the remainder of RIIO-ED1 and RIIO-ED2.
- Created additional traineeships to our long established apprentice and graduate framework of traineeships, which has resulted in new talent being introduced into WPD, and responds to employee feedback in relation to growth and development, and the changing environment.
- Provided training for managers and supervisors in mental health awareness and mental health first aid, in conjunction with our occupational health team, which has resulted in a reduction in days lost to mental ill-health.
- Provided managers and supervisors with leadership training that gives a greater understanding of how their behaviour may impact on the results of their team.

5.226. We continue to deliver excellent customer service, safely, led by a strong leadership team and senior managers supported by a loyal and committed resilient workforce. However, we see

changes to our business drivers in an emerging energy market that will change the way we do things in the future. We have a strong foundation to build on, and we will continue to identify opportunities for improvement to keep our employees engaged and loyal. We face an uncertain and challenging time ahead, but we are confident that the opportunities we provide for our employees will attract and retain talent that in turn will deliver excellent results and respond to future changes.

Laying the foundations for RIIO-ED2

5.227. In addition to the reviews and assessment of our employment practices that we have undertaken in RIIO-ED1, our strategy is to continue to build on what we have achieved to date to ensure that we have a resilient workforce to meet our future challenges.

5.228. We continue to analyse our workforce to plan our future resourcing needs, and based on our current attrition rate of 4% - we will look to replace 24% (1585 employees) of our existing workforce during the remainder of RIIO-ED1 and through to the end of RIIO-ED2. This, coupled with the additional roles to support the business changes from now through to the end of the regulatory period will result in a total of a 29% change of employees across WPD. A summary of the additional roles identified to resource the requirements of DSO, net zero carbon targets, digitalisation and innovation is shown as table **, supported by external resourcing, upskilling and reskilling our existing workforce, internal promotions and annual intake of the previously described apprenticeships and traineeships.

5.229. In addition to our internal ongoing proactive actions, we have consulted widely with our stakeholders through stakeholder workshops (including representatives from all walks of life and organisations), Utility Networking Groups, the Customer Engagement Group (CEG), our employees and workers, (employee satisfaction surveys) and trade union colleagues (Prospect, Unison, GMB and UNITE) in arriving at our commitments and wider commitments for RIIO-ED2. We have also engaged with numerous organisations either in person or by utilising information on official websites – e.g. Chartered Institute of Personnel and Development (CIPD) in setting out our ambitions for the future.

5.230. This consultation resulted in the following broad themes and areas of focus, which we have embraced totally in our workforce resilience plans and commitments for RIIO-ED2, our strategy is to maintain a safe, healthy and motivated workforce where WPD is that "stand out" employer by:

- Retaining and upskilling a specialised highly skilled productive workforce
- Attracting new talent to the electricity sector
- Improving the diversity, inclusion and equity of the workforce
- Increasing the STEM (Science, technology, engineering and mathematics) pipeline

5.231. Our stakeholder meetings provided much feedback of suggestions that are already in place within WPD, for example – support for retirees whereby we currently hold pre-retirement courses for all retirees in the 2 year period prior to retirement, and we provide 35 days pre-retirement leave in the 12 months prior to normal retirement, to ease employees into retirement.   However we have recognised areas for improvement and gaps in our workforce resilience strategy that we can continue to build on going forward. These are more widely discussed in our RIIO-ED2 section.

5.232. One opportunity that this consultation highlighted is that our business strategy of utilising our current vision and values, and Key Goals for Success to express our purpose, has widened. Our previous priorities that were - providing excellent customer service and treating a customer as they would wish to be treated, and employee, customer and public safety, now have a much wider remit, and will further develop due to the planned changes by the UK Government in

relation to net zero carbon emissions targets, digitalisation, more social responsibility and the transition to DSO. We have therefore revisited our purpose, and asked ourselves some pertinent questions:

Is our current workforce resilience strategy aligned with the changing market environment in the electricity distribution and energy sectors?

5.233. Our Workforce Resilience Strategy needed updating – we are looking more widely. It is no longer our purpose just to keep the lights on – customer service, performance excellence and safety are already deeply embedded into our culture, but now our forward looking strategy includes a need to act in a way that:

- further protects and preserves the environment in line with low carbon technologies, reducing carbon emissions, and the effects of DSO requirements;
- greater use of digitalisation and data collection
- playing an active part in the communities we serve, both in our social responsibilities and in our action plans for a more inclusive and diverse workforce, and;
- all of our employees are proud to work for the WPD of the future.

5.234. To align our strategy with these requirements we have looked critically at our organisational structures and have taken steps to adjust the relevant structures in the following areas:

1. Prepared for total separation of DNO and DSO activities by creating separate DNO and DSO functions that now run as business as usual under the following organisational structures and appointing a senior manager for each activity, with new and existing support roles.

2. Appointed a dedicated resource to manage our DEI commitments within the ER team reporting to the ER Manager.

3. Structure changes to the environment team to support the separation of DSO / DNO who now report into the Safety and Training Manager, giving scope for separate policy formulation for DSO and net zero.

4. We have also restructured our Information Resources (IR) teams to provide an "IT service desk" function in line with best practice. Our outdated IT support structure was not making the most efficient use of our IT employees' skills, and by making changes to our team structure we are now more aligned to the needs of the business to drive improvements whilst continuing to further enhance the security and resilience of our IT systems. Moving forwards into RIIO ED2 we will need to further extend our IT capabilities in order to meet the business requirement and commitments for DSO, digitisation, data collection, cyber security and Network and Information Systems (NIS) compliance. In order to meet these business requirements and their associated IT challenges we will require a growth in existing IT services and roles as well as the creating a number of new IT roles such as Technical and Data Architects.

5. Analysed our recruitment needs to deliver the challenges of net carbon zero challenge, DSO / DNO separation, digitalisation and data collection, and innovation initiatives that we require a further employees - 74 in RIIO-ED1, and 242 in RIIO ED2, amounting to 316 additional posts in total.

5.235. The changes in these structures and additional resource requirements will continue to be reviewed as the business develops in these areas, in line with any training requirements of existing employees and new skills and talents required from the external market.

5.236. Will our existing workforce resilience strategy deliver the required outputs that the UK government and our stakeholders require.

5.237. Yes, we have extended our existing strategy by redefining our purpose, vision and values, so that these values are at the core of our business and underpin and build on everything that we do. Some values will remain unchallenged as they have contributed to our success in previous review periods, but we will be adding and reinforcing some values to deliver our redefined purpose. These will be explored more fully in our plan for RIIO-ED2.

5.238. In addition, as explained above we have already made changes to our organisational structures to align our business direction and workforce resilience needs.

What do we need to do to build into our workforce resilience plan in RIIO-ED1 and into RIIO-ED2, to be successful and provide value to our customers?

5.239. In redefining our purpose and values, making organisation structure changes, revisiting our training and traineeships and apprenticeships, and by taking into consideration stakeholder feedback, we have identified our core and wider commitments for the remainder of RIIO-ED1 and through to the end of RIIO-ED2.

5.240. The following section (S.4) describes our commitments for RIIO-ED2 that will deliver our workforce resilience plan for RIIO-ED2 and beyond. We will seek to maximise the initiatives we embarked on in RIIO-ED1 and grow and expand these to deliver greater customer and employee value.

5.241. In order to measure our actions and initiatives, and the impacts that these will have on delivering best value to our customers during RIIO-ED2, we are taking a collaborative approach with other DNOs to establish a set of metrics and actions to measure and report our progress in RIIO-ED2 in 3 identified employee areas:

- Workforce satisfaction
- Diversity, Equity and Inclusion
- Mental health in the workplace

5.242. In agreeing these metrics and actions each DNO, through a joint working group, will share an initial high level set of headline metrics and agreed actions for public reporting and transparency. This collaborative approach will extend into RIIO ED2 and the group have committed to meet to discuss ideas and share best practices.

Proposed metrics:

Workforce satisfaction
- Conduct a DNO specific bi-annual employee engagement survey. Use the responses to report on key insights and resulting actions publicly. Report response rate by employees.

Diversity, Equity and Inclusion:
- Position in the sector following publication of annual gender pay gap reporting
- Workforce demographics - All
- Gender, Ethnicity, Disability, Age
- Workforce demographics – Colleagues in STEM related roles
- Gender, Ethnicity
- Workforce demographics- Leadership roles
- Gender, Ethnicity

Employee Well-being and Mental Health support*
- Track numbers of incidents of mental ill health
- Track days lost to mental ill health
- Self and Manager referrals to our Employee Assistance Programme

* Whilst absence KPIs are not entirely tangible, WPD has decided to use these metrics (outside the scope of the DNO group) to track the data over time to ascertain if our mental health policy/ practical guidance, employee and manager awareness training, OH team and use mental health first aiders / champions, coupled with our employee assistance programme, provision of CBT and monthly health communications initiatives – are reflected in decreasing incidents and days lost to mental ill- health.

RIIO-ED2

5.243. Our vision of delivering a safe and reliable electricity supply at an affordable cost for all our customers, using local staff to deliver a local service that creates a network for everyone, is at the heart of all our ambitions. Underpinning this ambition will be those who will deliver it – our employees.

5.244. That is why by the end of RIIO-ED2 we will have an inclusive, respectful and diverse workplace that rewards performance, with exceptional and embedded employment practices and encourages employee engagement. Our employees will be appropriately skilled and highly functioning to deliver excellent customer service

5.245. To achieve this ambition, and following consultation and engagement with our stakeholders, we have arrived at two main commitments - namely to achieve Investors in People at Gold level accreditation, and to increase diversity supported by greater inclusion and equality in the workplace.   These commitments have been tested and justified in the online workshops conducted with stakeholders, and by publishing two versions of our draft Business Plans in early 2021 and acting on the feedback received. The feedback endorsed our proposed commitments and four wider commitments.

5.246. Our stakeholders wish for a happy, healthy and motivated workforce where WPD is the employer of choice, where employees feel appreciated and where WPD cultivates a culture of "belonging" within its workforce.

5.247. These views were further enhanced – requiring wider promotion of STEM, forming alliances with partner organisations, schools and colleges and creating a culture of inclusivity and equal opportunity across all protected groups to promote greater social mobility. We have built these additional requirements into our workforce resilience plan.

5.248. We believe that by achieving a more diverse, inclusive workforce and by achieving Gold standard Investors in People (IIP), and by continually asking for and acting on our employees feedback via our employee satisfaction survey, our employees will be happy, healthy and motivated to continue to deliver best value for our customers in their interactions on a daily basis, supported by exceptional embedded employment practices achieved through the rigours of the IIP Gold standard. We will continue to track our turnover data, agreed metrics and exit interview data to understand why employees leave for reasons other than retirement.

Vision, purpose and values

5.249. To deliver: "Power for life, Power for future generations", underpinned by eight core values. Our purpose and vision is to deliver exceptional service and support environmental and social well-being for these communities.

5.250. Purpose, Vision and Values can be found at yourpowerfuture.westernpower.co.uk/downloads-view/ 42045 and in appendix A15 of this document.

5.251. Our values are shown in figures SA-02.102.
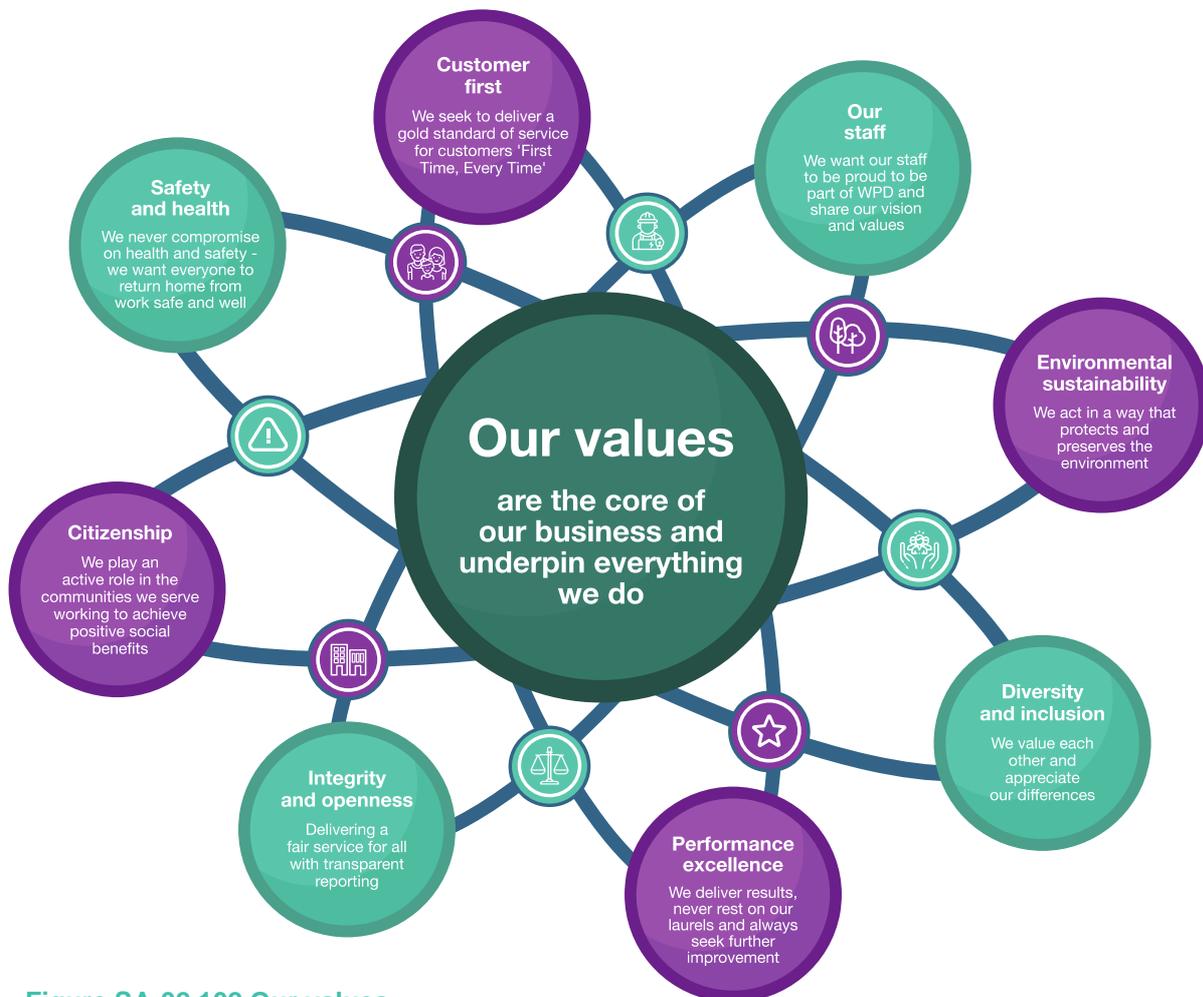
Figure SA-02.102 Our values

Our workforce resilience core commitments for RIIO-ED2

What our stakeholders said about the workforce resilience

5.252. What our customers considered to be their top priorities for workforce resilience is described in figures SA-02.103.

	Stakeholder Priorities	Core Commitment which Addresses this Priority
1	Provide flexible working packages and other incentives that suit the whole working demographic including sabbaticals, time off in lieu, and flexible retirement plans	Core commitment 41 and 42
2	Create an age-inclusive environment that accommodates different working practices between generations	Core commitment 41 and 42
3	Provide emotional support to build trust amongst staff	Core commitment 41
4	Provide clear, whole-career, and personalised development pathways for staff that enable progression through WPD	Core commitment 41 and 42
5	Equip managers with skills to empower other staff and implement personal development programmes	Core commitment 41 and 42
6	Develop a flexible, resilient workforce prepared for new roles and ways of working in the future	Core Commitment 41 and 42
7	Improve outreach to schools	Core commitment 41
8	Evaluate how WPD reaches out to younger people ready for employment	Core commitment 41

Figure SA-02.103 Stakeholder top priorities for Workforce Resilience

Core Commitment 41	Demonstrate exceptional and embedded employment practices by achieving Gold accreditation with Investors in People by the end of RIIO-ED2.

5.253. Our stakeholders want WPD to recruit the best staff and to ensure that the existing staff and new staff are developed in order to deliver what is required in RIIO-ED2. In our first draft Business Plan, we proposed to meet Investors in People (IIP) silver standard as a way to demonstrate WPD as an outstanding employer. In our first draft Business Plan, our stakeholders were asked what level of IIP accreditation they wanted WPD to commit to. In our consultation, we gave our customers five options and the results are shown in figure SA-02.104.

Investors in People accreditation level

Standard accreditation: 5%
Silver (top 33% of UK companies): 48%
Gold (top 18% of UK companies): 29%
Platinum (top 2% of UK companies): 15%
Alternative: 4%

Demonstrate exceptional embedded employment practices by achieving accreditation with Investors in People by the end of RIIO-ED2
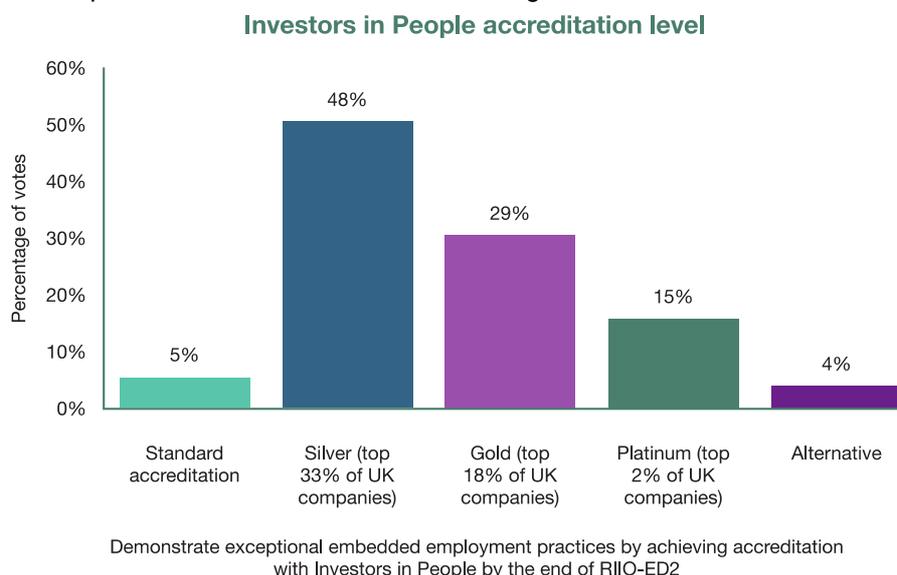
Figure SA-02.104 Stakeholder consultation feedback results – Investors in People

5.254. Although 48% of our stakeholders opted for Silver level, an equal number also wanted to see further ambition. As a result, we increased the ambition of this commitment to strive for Gold accreditation.

Core Commitment 42	Achieve year-on-year improvements to the levels of diversity within the business and publish an annually updated Diversity, Equity and Inclusion Action Plan.

5.255. Our stakeholders were also clear that we need to focus on diversity, equity and inclusion. As part of the first draft Business Plan, we stated that we would publish an annually updated action plan. As part of our first draft Business Plan consultation, we asked our stakeholders about their view on this. The results are shown in figure SA-02.105.

Diversity and inclusion

Publish annually our updated Diversity And Inclusion Action Plan and performance
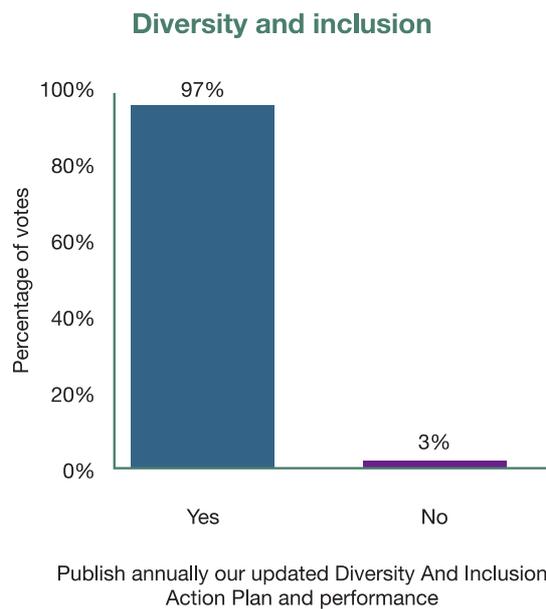
Figure SA-02.105 Stakeholder consultation feedback results – Diversity, Equity and Inclusion

5.256. We had overwhelming support for this from our stakeholders. However, they wanted us to translate this to year on year improvements. Based on this, we increased the ambition of this core commitment.

Our two main commitments in greater detail:

5.257. We have published two main commitments that will provide a workforce resilience plan to deliver those requirements, by working closely with our training teams, business managers and trade union colleagues.

5.258. At the end of the RIIO-ED2 period we will:

- Demonstrate exceptional and embedded employment practices by achieving gold accreditation with Investors in People by the end of RIIO-ED2.

5.259. We have recognised that it is important that we represent the communities we serve and promote WPD wherever we can to tap into the vast internal and external resource in our operational regions and elsewhere to increase our attractiveness as an employer, be it in schools and colleges, in community events, and through our careers website to sell our workplace as a "great place to work".

5.260. We will ensure that our culture, business style and values continue to develop to be attractive to new and existing employees from all communities, while maintaining the established focus on safety, customer first and personal responsibility. We have taken steps to revise our purpose, vision and values to prepare us for the changing period ahead.

5.261. Our ambition as a result will be to gain an Investors in People accreditation at Gold level which is held by the top18% of employers accredited by the award.

- Achieve year on year improvements to the levels of diversity within the business and publish an annual updated Diversity, Equity and Inclusion Action Plan.

5.262. 97% of stakeholders supported this commitment.

5.263. In response WPD launched its "five pillars" approach (figure SA-02.106) centred on developing our workforce, maintaining a diverse and inclusive culture, supporting our communities and customers, and doing business with more diverse suppliers.

DEI mission and statement:

Mission:

"We value each other and appreciate our differences"

Statement:

We are committed to an inclusive, respectful and diverse workforce that rewards performance, enables professional development and encourages employee engagement. Employees take responsibility for results and are committed to diversity and continuous improvement (see figure SA-02.106).

WPD - powering diversity, equity and inclusion

Commitment 1	Commitment 2	Commitment 3	Commitment 4	Commitment 5
Attract, develop and retain a high-performing, diverse workforce.	Increase diverse representation in leadership roles, with focus on females and minorities.	Maintain a workplace culture of equity and inclusion.	Foster partnerships that support the growth and vitality of the diverse communities and customers we serve.	Develop and sustain relationships with diverse suppliers, vendors and service providers.

Figure SA-02.106 Powering diversity, equity and inclusion

5.264. Our key audiences will be – our employees, future employees and job seekers, stakeholders, customers and regulatory bodies, and our ambition will be:

- To attract future potential employees to the Company
- Build a positive relationship with STEM
- Build a positive relationship within local communities
- Promote the Company's intentions to support DEI in the workplace
- Engender staff pride in WPD as a DEI employer
- Encourage staff from diverse backgrounds to seek opportunities for growth and development in the business
- and provide a sense of belonging

5.265. By using the Respect Charter, key focus areas, and wider commitments for diversity and inclusion we will improve the diversity of WPD and seek to gain accreditation to a national standard.

What will we do?

5.266. The power industry, including WPD has struggled to significantly increase the levels of minority ethic and female employees within engineering roles, and within the remainder of RIIO-ED1 we are going to critically analyse our employment practices to understand where the blockers to change are and implement strategies to remove them. We will do this by engaging more widely with our trade union colleagues and through our social obligations strategy to promote WPD as an employer who is a big part of their community, not only as a service provider. Within RIIO-ED2 we will build on this work to reduce the gender pay gap by having the necessary pipelines of females who are ready to move into middle and senior management roles, and to increase our female talent generally.

5.267. A report entitled "The workforce requirements of the GB electricity network operators during RIIO-ED2 and beyond" published in March 2021 by The National Skills Academy, highlighted a lack of employee data in relation to ethnicity, and whilst WPD has collected just over 90% of the data in this area, the overall availability of data across the DNOs amounts to only 40%. This will make comparing our metrics difficult until such time as we have a good data set.

5.268. We will continue to actively support careers events at schools, work with diverse colleges and universities and support charities and organisations in the community to attract those from under represented backgrounds.

5.269. We are a member of the "Power Academy", a body of employers and universities who support the recruitment of graduates with relevant degrees who are the employees of the future. Interested students apply to the Academy and if successful are offered sponsorship, paid internships and possible employment following graduation. We have had a number of Power Academy students who have secured graduate posts with us, and this will continue into RIIO-ED2.

5.270. WPD currently chair the Council and are working with various other partner companies within the Academy to identify and improve the diversity of applicants and scholars within the programme. A Diversity Improvement Working Group has been established with members from WPD, Loughborough University, Atkins, Network Rail and UKAEA. Loughborough University have completed a survey with their students to identify what are the main factors for female students not applying to the Power Academy and the survey is being expanded to include Manchester and Birmingham Universities. The results will be analysed by the working group with actions agreed to address the barriers to application to the programme.

5.271. We continue to identify opportunities to manage and motivate our loyal, valued, and resilient workforce and reward and incentivise all of our team members to deliver results and meet future challenges.

5.272. Becoming a distribution system operator (DSO), sets real challenges for our leaders and our workforce. Building smart, efficient energy systems through flexibility and digitalisation, coupled with the need for an increasingly sophisticated approach to cyber security and the UK's net zero and decarbonisation plans requires new innovative ways of thinking and managing our workforce. We will structure these aspects of the business to support these challenges. Much work has been undertaken on how we strategically align our workforce with the business in identifying new skill areas required, additional resources through external recruitment, training requirements of

existing employees and cross skilling opportunities to both support the business targets, but also ensure alignment to the wider strategies.

5.273. We will look to further enhance our ESG rating for "Measures to promote equal opportunities and diversity" from A- to A+.

5.274. In analysing the data and priorities that have been identified through our employees (1) customers and stakeholders (2) and trade union colleagues' (3) input, there are definite synergies and common themes that these groups wish to see in the future. Additionally there are confirmations for actions that we already have in place. As stated we have arrived at two core commitments areas for RIIO-ED2 and wider commitments that support the main outputs (see figure SA-02.107).
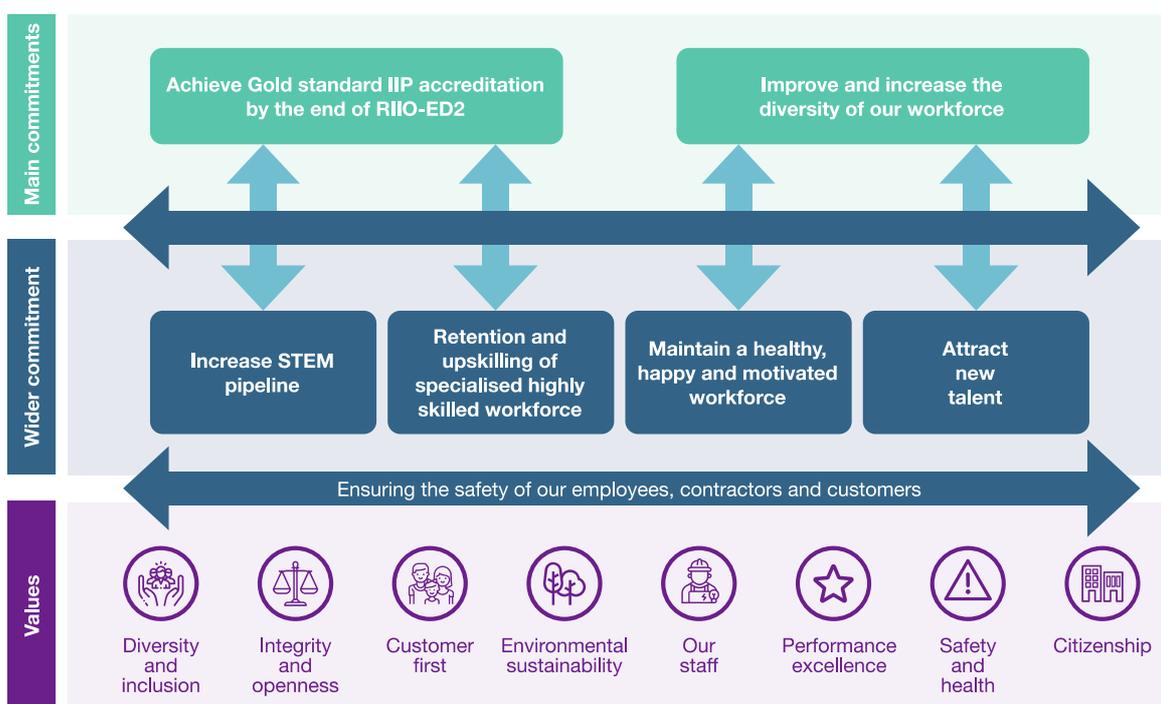

Figure SA-02.107 Workforce resilience - core and wider commitments

5.275. The wider commitments identified by our stakeholders that support the two main commitments are:

1. Maintain a happy, healthy and motivated workforce
2. Retention and upskilling of a specialised highly skilled workforce
3. Attract new talent
4. Increase the STEM pipeline

5.276. The full list of areas identified for success within our key areas of focus are within the figure SA-02.107, along with how we expect to measure each success and the impact success will have:

(a) Recruitment process:

Key to supporting commitments, WC1 Maintaining a safe, healthy and motivated workforce, WC2 Retention and upskilling of a specialised high-skilled workforce, WC3 Attracting new talent, WC4 Increasing the STEM pipeline

Target	Wider commitments				Proposed Metric	Impact
	WC 1	WC 2	WC 3	WC 4		
Monitor and improve our recruitment process by creating an internal dashboard of measurable metrics. Use these metrics-positive or negative to improve results			√	√	1. Number of Candidate quality based on defined role criteria 2. Cost per hire 3. Source of hire 4. Number of open applications 5. How visible are we 6. Offer acceptance rate Hiring Manager satisfaction based on a questionnaire following appointment 7. New employee experience based on a questionnaire 8. Employee retention rate 9. Employee referrals 10. Review websites such as "Indeed" to get company ratings and existing employee review	Attract, recruit and retain the best talent from all social and economic backgrounds and communities, to increase our diversity.

Figure SA-02.107 Recruitment process

5.277. Through our recruitment process we will create a dashboard and collect key metrics that will give us insight into our brand and attractiveness to potential employees within our area and further afield. The metrics will be analysed to drive a positive change in our diversity actions throughout the business.

5.278. Building a good reputation as an employer differentiates us from our competitors and demonstrates the way we work – our values, culture and goals. 75% of job seekers consider an employer's brand before they even apply for a job, and 96% of employers believe that their employer brand can positively or negatively impact revenue.

5.279. Nowadays 86% of job seekers use social media in their job search.

(b) Investors In People (IIP) accreditation at Gold level

Key to supporting commitments, WC1 Maintaining a safe, healthy and motivated workforce, WC2 Retention and upskilling of a specialised high-skilled workforce, WC3 Attracting new talent, WC4 Increasing the STEM pipeline

Target	Wider commitments				Proposed Metric	Impact
	WC 1	WC 2	WC 3	WC 4		
Achieve Investors in People (IIP) accreditation at Gold level.	√	√	√	√	Achieve: Basic accreditation 2022 Silver 2025 Gold 2028	Employees will see the business is committed to them and is willing to invest in their future

Figure SA-02.109 Investors In People - Gold level

5.280. Achieving the IIP Gold level is an ambitious target endorsed by our stakeholders that will give WPD the opportunity to meet the required level within each of the accreditation standards (see figure SA-02.108). We will achieve the gold standard by 2028, starting at the basic level of accreditation and building on this during RIIO-ED2.

5.281. By achieving the Investors in People (IIP) accreditation at Gold level by the end of RIIO-ED2 we look to utilise the IIP framework to lead, support and improve our status as an employer who "understands its people" by embracing the IIP nine indicators that demonstrate good practice and continuous improvement.

5.282. The nine indicators are:

- **Leading**: leading and inspiring people, using the organisations values and behaviours, empowering and involving people

- **Supporting**: managing performance, recognising and rewarding high performance, structuring work

- **Improving**: Building capability, delivering continuous improvement, creating sustainable success.

5.283. The nine indictors included in the IIP accreditation will provide a framework that will assist us in:

- Improving diversity, equality and inclusion - (WISE ten steps framework, working with partner organisations)

- Improve workforce satisfaction - (Employee satisfaction survey and pulse surveys, employee involvement and volunteering)

- Improve workforce motivation and productivity - (Empowerment, structuring work, rewarding high performance)

- Upskilling and multiskilling the existing workforce - (Building capability, continuous improvement, sustainability)

- Ensuring the health, safety and mental wellbeing of the workforce - (In-house occupational health initiatives, HSE alliance)

- Attracting people to the energy sector - (Promoting employer brand, working with schools and colleges and partner organisations and making alliances with organisations that promote DEI support)

- Working and collaborating with our DNO colleagues to share initiatives, ideas and best practices

- Consulting with our Trade Union colleagues

5.284. Achieving this accreditation at this level will support WPD as a stand out employer, but more importantly, through regular employee surveys, will lead us to question our current practices as we work through each indicator. In working through these nine indicators we will engage with our corporate communications colleagues to promote WPD as a "Standout Employer" that communities and prospective employees will want to be part of.

(c) Revise our flexible working arrangements

Key to supporting commitments, WC1 Maintaining a safe, healthy and motivated workforce, WC2 Retention and upskilling of a specialised high-skilled workforce, WC3 Attracting new talent, WC4 Increasing the STEM pipeline

Target	Wider Commitments				Proposed Metric	Impact
	WC 1	WC 2	WC 3	WC 4		
Track flexible working arrangements extending our working from home policy but with working arrangements to support all agile and inclusive working. E.g. career breaks, sabbaticals etc.	√	√	√	√	Homeworking Policy introduced December 2020: Keep KPI information to track flexible options	More flexibility within the business and engagement with employees of all ages Increased job applications

Figure SA-02.110 Flexible working arrangements

5.285. WPD is committed to reviewing our working arrangements to allow for more flexible and agile working where possible (see figure SA-02.109). The world of work has changed in recent years and the COVID-19 pandemic in 2020 has made us look critically at how we can work more flexibly in the future. We are conscious that employees and prospective employees demand a work / life balance that is flexible and supports their caring and social responsibilities, and by implementing more flexibility and agility we hope to attract a more diverse workforce.

(d) Continue to offer health and wellbeing interventions

Key to supporting commitments, WC1 Maintaining a safe, healthy and motivated workforce, WC2 Retention and upskilling of a specialised high-skilled workforce, WC3 Attracting new talent, WC4 Increasing the STEM pipeline

Target	Wider Commitments				Proposed Metric	Impact
	WC 1	WC 2	WC 3	WC 4		
Continue to offer health and wellbeing interventions such as the Employee Assistance Programme (EAP), managed back care provision, health surveillance and occupational health support through our In-house Occupational Health Team.	√				Reduce total number of days lost to mental ill health absence by 5% year on year to 2028. Create a dashboard of occupational health stats to identify trends Achieve 100% completion each year for health surveillance	Identify possible health issues before they are a problem. Shorter absence periods for employees, and provides insight into communication programmes to improve health. Improved productivity

Figure SA-02.111 Health and wellbeing

5.286. Our current levels off absence work on a target of 4 days absence per employee per year. In recent years, mental ill-health in the form of stress, depression, anxiety etc. have increased and is the fifth highest reasons for absence within WPD, coupled with this, absences due to mental ill health carry a longer period of absence. We will continue to monitor this yearly and track how our interventions are assisting employees with mental ill-health related issues.

5.287. Figure SA-02.111 shows a summary of average work days lost to mental ill health per employee since the start of RIIO-ED1:

	2016/17	2017/18	2018/19	2019/20	2020/21
Average work days lost per employee	0.97	1.25	1.43	1.74	1.46
Number of individual employees affected	243	291	355	316	114

Figure SA-02.112 Average working days lost – mental ill health

5.288. A conscious effort to train our managers, revise our mental health policy and provide cognitive behavioural therapy to complement our employee assistance programme has had marked influence in decreasing days lost and incidents of mental ill health. We look to continue this reduction year on year.

5.289. When wellness is practiced in the workplace the results speak for themselves. We will measure wellness by watching our retention / turnover levels, monthly KPIs including absence statistics and any concerns to our employee helpline related to discrimination, victimisation and bullying. Our goal would be to see a steady but positive decline in absences relating to mental ill health, in terms of the number of absences relating to mental health issues and the duration of absence, in line with our improved results shown in part one.

(e) Work with Trade Unions and employees to monitor wellbeing, accidents and safety related incidents						
Key to supporting commitments, WC1 Maintaining a safe, healthy and motivated workforce, WC2 Retention and upskilling of a specialised high-skilled workforce, WC3 Attracting new talent, WC4 Increasing the STEM pipeline						
Target	Wider Commitments				Proposed Metric	Impact
	WC 1	WC 2	WC 3	WC 4		
Continue to operate Safety, Health and Environment (SHE) committees at Company and local level, reporting annually on safety performance and absence management. Building on the Safety Climate surveys undertaken in RIIO-ED1.	√	√	√	√	Hold 4 x Local SHE meetings yearly. Hold 4 x Company SHE / TU Meetings each year Provide KPIs that show wellbeing, accidents and safety incident data quarterly and annually.	Commitment to operate safely and in collaboration with our employees and the recognised trade unions. Improved safety policy and procedures Increased productivity

Figure SA-02.113 Monitoring wellbeing, accidents and safety related incidents

5.290. We will continue to aim to reduce accidents and safety related incidents in line with safety goals.

5.291. We aim to demonstrate that our emphasis on providing a safe and healthy work environment will send an important message to our current and future employees that we really do care that our employees go home, well and unharmed by their work activities. This will be reflected in our monthly, quarterly and annual KPIs (see figure SA-02.112).

5.292. The safety climate survey that we carried out in 2018 across randomly selected groups of team members provided an opportunity to contribute to our ongoing safety strategy, improving satisfaction and motivation by giving our employees a voice and the ability to question our ongoing strategy.

(f) Conduct regular employee satisfaction surveys (at least every 2 years) and pulse surveys to gauge workforce satisfaction

Key to supporting commitments, WC1 Maintaining a safe, healthy and motivated workforce, WC2 Retention and upskilling of a specialised high-skilled workforce, WC3 Attracting new talent, WC4 Increasing the STEM pipeline

Target	Wider Commitments				Proposed Metric	Impact
	WC 1	WC 2	WC 3	WC 4		
Build on our Employee satisfaction and Pulse Survey outcomes to measure employee satisfaction.	√	√	√	√	Increase response rate to main survey to 80% in RIIO- ED2. Increase positive responses in each category to achieve at least 60%. Take actions based on results.	Employees will have the opportunity to shape the future thinking of the business and provide feedback on the changes made since the last survey.

Figure SA-02.114 Undertake employee satisfaction surveys

5.293. We plan to utilise the same framework for workforce satisfaction that will invite employees to have their say on our future employee experience and feeding into our wider commitment of maintaining a happy, healthy and motivated workforce (see figure SA-02.113).

(g) Recognition of our team members

Key to supporting commitments, WC1 Maintaining a safe, healthy and motivated workforce, WC2 Retention and upskilling of a specialised high-skilled workforce, WC3 Attracting new talent, WC4 Increasing the STEM pipeline

Target	Wider Commitments				Proposed Metric	Impact
	WC 1	WC 2	WC 3	WC 4		
Launch an employee of the month scheme to recognise actions and behaviour that is over and above to supplement our existing recognition initiatives.		√	√		Continue to recognise employee commitment	Employees will feel recognised and appreciated, leading to higher retention.

Figure SA-02.115 Employee of the month scheme

5.294. At WPD we celebrate our successes and recognise that our success is down to the hard work, commitment and loyalty of our team members – "the Company".

5.295. Some of our recognition rewards are made to an individual team member and others are awarded to a team – some examples include:

- Apprentice of the Year – this is an annual award that is made to one employee in each of the four licence areas.
- Long Service voucher awards recognise service milestones at 20, 30, 40, and 50, years of service. A framed long service certificate is also presented to the qualifying employee. In 2020 we made 337 awards including 3 for 50 years' service and 53 for 40 years' service
- An additional days annual leave entitlement at 5 and 10 years' of service
- Safety awards to teams who are accident free
- Matching awards for c.80 employees who raise money for charitable causes in 2020

5.296. In addition to the actions identified above where we can make a real difference in promoting WPD as a stand out employer, we will continue the actions and initiatives we started towards the

end of the RIIO-ED1 period. These will include a review of training and development opportunities, by further enhancing our internal traineeships and providing the opportunity for employees to study for a level 3 or 4 qualification in preparedness for those roles that require this level of qualification.

5.297. In addition, we will look to up-skill our employees to take on new roles created by the changing industry in areas such as DSO, low carbon technologies and digitalisation. We will appoint and train and utilise fully, mentors to support those who wish to enhance their career and we will seek to appoint new apprentices (above our agreed headcount) from disadvantaged backgrounds to future occupy roles as part of our succession planning arrangements, but who, may not have had a chance to gain qualifications for whatever reason. Greater involvement with schools and colleges will be paramount in attracting those students who wish to take on a career in engineering.

5.298. We will continue to build on our existing employee communications methods, and work with our corporate communications team to ensure that our employees are fully informed of our business activities.

5.299. WPD will as far as is reasonably practicable, provide good career prospects and security. Where staff reductions are necessary, the aim will be to continue to achieve those reductions by natural wastage, redeployment, early retirement or voluntary redundancy.

5.300. In order to achieve our second commitment to 'Achieve year on year improvements to the levels of diversity within the business and publish an annual updated Diversity, Equity and Inclusion Action Plan', we will:

(a) **Women in Science and Engineering (WISE)**

5.301. We will continue to be actively involved with Women in Science and Engineering and utilise our position as a Ten Steps signatory to support progress, and retain female employees and to drive culture change and Company performance (see figure SA-02.116) - achieved by benchmarking against other organisations.

5.302. As a signatory to the WISE Ten Steps – we commit to:

- Making a public commitment to improve conditions for women working in STEM.
- Supporting the WISE 10 Steps as a framework for companies seeking to retain and develop female talent.
- Working with WISE by using the Ten Steps to help recruit, retain, and develop women in our own organisation.
- Reinforcing our commitment to providing equal opportunities within our workforce as the framework can be applied to all unrepresented groups as well as women.

Figure SA-02.116 WISE Ten Steps

Key to supporting commitments, WC1 Maintaining a safe, healthy and motivated workforce, WC2 Retention and upskilling of a specialised high-skilled workforce, WC3 Attracting new talent, WC4 Increasing the STEM pipeline						
Measuring success	Wider commitments				Proposed Metric	Impact
	WC 1	WC 2	WC 3	WC 4		
WISE (Women in Science and Engineering)	√	√	√	√	Achieve WISE Ten Steps and occupy a top quartile position, by 2028 Gender diversity increase to a ratio of 77% men 23% women (based on a 1% increase per year from 2018- 2021)	Women in engineering recognised employer. More women and diversity of skills in the workforce

Figure SA-02.117 WISE Ten Steps achievement

5.303. We have embarked on our journey with WISE to achieve the WISE Ten Steps framework (see figure SA-02.116). We have held our first workshop and are now looking to set up a working group with employee volunteers to steer us through our journey. Whilst WISE is aimed at increasing diversity for women in the workplace, we intend to use the framework to increase diversity amongst other groups such as people of colour (PoC) and LGBT+ communities and we are embarking on an ongoing communications exercise to promote our intentions more widely to our employees and our communities.

(b) Diversity, Equity and Inclusion Action Plan and dashboard

5.304. Within RIIO-ED2 we will act on the information our dashboard indicates are barriers to a diverse workforce eliminating bias and promoting inclusivity with all of our internal and external recruitment and retention policies.

5.305. Our dashboard currently measures female and ethnicity data and within RIIO-ED2 we will expand it to include all diversity metrics, and include flexible working requests, recruitment statistics, and employee feedback – with the aim of implementing targeted strategies to see increases in all areas. Our target will be to see an increase across all groups year on year, then further refined to diversity metrics in job roles.

5.306. Our initial plan will be to ask our staff to complete an Inclusion survey. This is going to be the most accurate way to understand our baseline metrics. We will also use our dashboard to inform actions to reduce our gender pay gap over the RIIO-ED2 period, and prepare for further minority group reporting. We will:

Key to supporting commitments, WC1 Maintaining a safe, healthy and motivated workforce, WC2 Retention and upskilling of a specialised high-skilled workforce, WC3 Attracting new talent, WC4 Increasing the STEM pipeline						
Measuring success	Wider commitments				Proposed Metric	Impact
	WC 1	WC 2	WC 3	WC 4		
Publish our Diversity Equity and Inclusion Action Plan that is enduring and identifies actions that lead to an increase in all communities with protected groups being included in all areas of our workforce.	√	√	√	√	Report publicly on actions achieved. Establish industry leading benchmarked metrics in consultation with all DNOs.	More diverse and inclusive business with reduced barriers to entry. More representative of our local communities. Increased skills and talents Increased productivity Business change directed by data and measured for its success. Increased diversity, equity and inclusion

Figure SA-02.118 Diversity, Equity and Inclusion Action Plan success

5.307. In addition to publishing our action plan (see figure SA-02.117) and performance statistics annually on our website, we have engaged with all other Distribution Network Operators to devise a set of metrics – including those for increasing our Diversity.

5.308. Initially we need to increase the pipeline of applicants, and we will benchmark ourselves against other DNOs / organisations to recognise areas where we are leading (flexible working, maternity provisions etc.) to externally promote WPD as a stand out diversity minded employer, that provides a supportive environment in which anyone can flourish.

Key to supporting commitments, WC1 Maintaining a safe, healthy and motivated workforce, WC2 Retention and upskilling of a specialised high-skilled workforce, WC3 Attracting new talent, WC4 Increasing the STEM pipeline						
Measuring success	Wider commitments				Proposed Metric	Impact
	WC 1	WC 2	WC 3	WC 4		
Increase our female and PoC manager split	√	√	√	√	Increase our female / PoC managers in RIIO ED2 period in Technical roles and corporate roles	Increase diversity at the top of the organisation, signalling our commitment to diversity and tapping into gifts and talents

Figure SA-02.119 Increase female managers

5.309. Our ultimate goal will be to have an as wide and diverse leadership team as possible by the end of 2028 (see figure SA-02.118). This does not only include the senior leadership team, but those employees in middle manager groups where the leaders of the future will play a part either in promoting diversity to their teams or by being those leaders who will shape the future.

(c) Use of Social Media

Key to supporting commitments, WC1 Maintaining a safe, healthy and motivated workforce, WC2 Retention and upskilling of a specialised high-skilled workforce, WC3 Attracting new talent, WC4 Increasing the STEM pipeline

Measuring success	Wider commitments				Proposed Metric	Impact
	WC 1	WC 2	WC 3	WC 4		
More use of social media platforms to promote our employer brand. Use of social media to show support for celebrations days – e.g. International Women's day, Pride week, etc.	√	√	√	√	Monitor "hits" relating to employee related posts. Conduct polls relating to the posts and their content to gain feedback.	Engagement with a wider audience leading to increased diversity and age ranges of applicants learning about our brand

Figure SA-02.120 Diversity, Equity and Inclusion Action Plan success

5.310. In recent years we have used social media more and more to communicate with our employees and customers. We believe that promoting our activities, by using these methods, raises the profile of WPD and we continue to look for further opportunities to increase awareness of our brand. The energy sector is not necessarily attractive to those looking for work, but with the challenges of the new world of low carbon technologies and the expanding digital age, we are seeking to attract candidates from all walks of life to help us continue our success and reputation as a good employer.

(d) DEI Communications

Key to supporting commitments, WC1 Maintaining a safe, healthy and motivated workforce, WC2 Retention and upskilling of a specialised high-skilled workforce, WC3 Attracting new talent, WC4 Increasing the STEM pipeline

Measuring success	Wider commitments				Proposed Metric	Impact
	WC 1	WC 2	WC 3	WC 4		
Following the launch of our DEI strategy – devise a communications plan to sustain our DEI message internally.		√	√	√	Monitor hits on SharePoint.	Improved communication with employees

Figure SA-02.121 Diversity, Equity and Inclusion Action Plan success

5.311. At WPD we are committed to increasing diversity, and improving inclusion and equality in our workforce (see figure SA-02.120). This has been highlighted as an area to focus on through our employee satisfaction survey and through our stakeholder engagement discussions, and is also representative of the wider political landscape that workers and employees are supportive of. We are committed to utilising the skills and talents of all of our workers and employees and by publicising our DEI strategy in the same way as we promote our attitude to safety, we believe we can embed DEI into our daily discussions, so that it become "the norm", and our culture becomes that of valuing and acceptance.

5.312. We launched our DEI strategy in the summer of 2021 and as part of that launch we created a dedicated DEI section on our SharePoint page explaining how diversity, equity and inclusion benefits both for the Company and employees. We plan to utilise our current communication methods to employees - namely:

- PowerNotes – employee communication notice
- Powerlines feature – staff magazine
- CEO monthly messaging
- Posters / display banners
- Videos, podcasts etc.

(e) Gender pay gap reporting

Key to supporting commitments, WC1 Maintaining a safe, healthy and motivated workforce, WC2 Retention and upskilling of a specialised high-skilled workforce, WC3 Attracting new talent, WC4 Increasing the STEM pipeline

Measuring success	Wider commitments				Proposed Metric	Impact
	WC 1	WC 2	WC 3	WC 4		
Reduce our gender pay gap further			√	√	Compare to other DNOs and the sector to achieve a top quartile position. Monitor diversity of applicant Diversity of Hires	Reduction in gender pay gap, more equitable workplace with equal opportunities.

Figure SA-02.122 Gender pay gap reduction

5.313. Our Gender Pay Gap has widened in the latest reporting period (2020) as a result of the retirement of a senior female manager (see figure SA-02.121). However our female workforce has increased by 1% from 9.5% to 10.5% and we are making small gains in recruiting female trainees for technical and engineering roles. We are confident that once the training that these employees is completed, we will see a constant flow of females feeding into middle to senior graded posts, which in turn will reduce our gender pay gap going forward.

5.314. We are committed to promoting our A+ ESG score for our flexible working arrangements / policy, to attract more women with caring responsibilities which may have been a barrier previously,

5.315. Other initiatives include:

- Mentoring programmes for "Rising Stars within protected groups to develop leadership skills.
- Create secondments and lateral moves for females into senior technical roles to enable experience for vacancies.
- Create female diversity groups across the business and meet annually to discuss future actions.
- Host an Annual STEM event.

RIIO-ED2 summary

5.316. WPD is confident that the two main commitments and four wider commitments for workforce resilience that we have made for the RIIO-ED2 will support our workforce resilience strategy, and achieve our ambitions so that at the end of RIIO-ED2:

- We will achieve Gold standard Investors in People Accreditation
- We will continue to use an insourced workforce in local teams who know their locality, their network and their customers to continue to provide high quality customer service
- The workforce structure changes that we made towards the end of RIIO-ED1 in DSO, digitalisation, IR, and the low carbon technologies teams supported by existing and

- additional employees with the required skills and talents will provide the employees WPD as a network / system operator will need for the future
- The continuance of a flat geographically based organisational network structure with minimal bureaucracy and delegated responsibility to act, has proved successful in previous review periods, is firmly embedded into our culture, and works for our customers as demonstrated in our 8.98 score (first) for overall customer satisfaction in RIIO-ED1
- The use of Artificial Intelligence (AI) that will be gained from a digitalised network, will further efficiency and effective use of data
- The training opportunities for up-skilling and multi-skilling our existing workforce will further bolster our workforce in times of change and in turn will increase efficiency and productivity, by utilising our labour more effectively
- Our commitment will be to continue with our annual apprentice and trainee intakes in line with annual succession planning and future identified requirements, - e.g. telecoms
- Our employees will reflect the diversity of the communities we serve, capturing the benefits of having people with different backgrounds, skills and experiences - not just those protected characteristics in legislation
- We will have a culture where every employee can bring their whole self to work, and partake in the success of WPD.

Transition to DSO and Digitalisation Strategy in RIIO-ED2

5.317. WPD's digitalisation strategy is a key part of our commitment to help meet the government's net zero targets by 2050. It paves the way for a transition to a smarter and more efficient energy system, moving away from the large-scale centralised generating resource to more local arrangements. We are already seeing increases in distributed renewable forms of generation connecting directly to our network, such as solar, wind and energy storage, as well increasing levels of LCTs, primarily electric vehicles and heat pumps.

5.318. To implement our long term strategy (See Annex 5) of using digital technologies to deliver open data, we will need to transform all aspects of our business including its capability, people and culture. The use and expansion of field apps to collect data and provide information is already helping field staff to understand the importance of data.

5.319. We recognise that new skills and job roles will be vital. These will be created by training existing staff, recruiting new employees and using third parties to assist in the transformation.

5.320. We will:

- Ensure the workforce is dynamic and embraces a 'digital culture'
- Provide robust training and retraining where required to facilitate a digital culture
- Continue to invest in new skills and people to ensure we continue to have a credible path for delivering our digitalisation strategy
- Provide governance and change management to enable a smooth transition and appropriate training as business operations and processes change
- Ensure solutions are focused on the need of the user, when considering both internal and external data solutions and interactions
- Ensure that skills aren't held within silos and that multi-function teams are developed to deliver solutions at speed and scale
- Gather frequent and targeted feedback on processes from key users to ensure solutions and training remain constant and appropriate

5.321. A number of new roles have been identified to underpin our activities in RIIO-ED2. These are based on workforce requirements for the remainder of RIIO-ED1 and throughout the RIIO-ED2.

5.322. Our analysis of asset replacement, general network reinforcement and LCT reinforcement required during RIIO-ED2, combined with the relatively small impact of smart metering, results in a resource demand that increases by 74 during the remainder of RIIO-ED1. A further 238 will be needed in RIIO-ED2, amounting to an additional 312 employees within the business. Figure SA-02.122 summarises the additional employee requirements by activity.
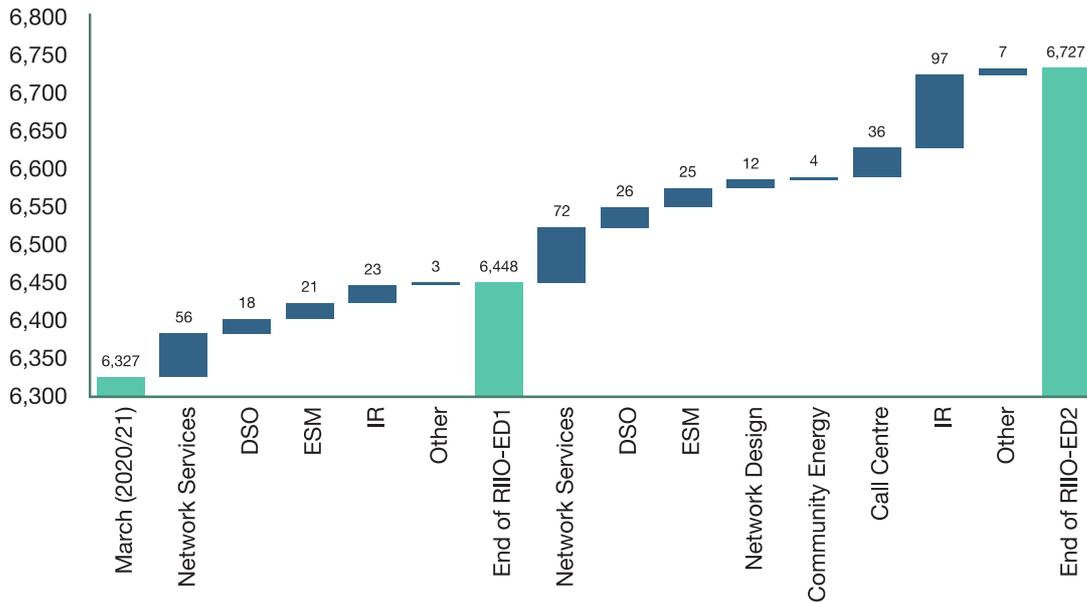

Figure SA-02.123 Additional employees required to meet network demands by the end of RIIO-ED2 compared to present, 2020/21

6. Appendices

Appendix A01 – Consumer Value Proposition 01

6.1.   This contains our Customer Value Proposition to: Ensure WPD is a net zero business by 2028 and set a stretching science-based target of 1.5 degrees.

6.2.   The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42087.

Appendix A02 – Consumer Value Proposition 02

6.3.   This contains our Customer Value Proposition to: Proactively partner with every local authority in our region to help them develop ambitious Local Area Energy Plans.

6.4.   The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42084.

Appendix A03 – Consumer Value Proposition 03

6.5.   This contains our Customer Value Proposition to: Establish Community Energy Engineers to support the development and delivery of community-based energy schemes to drive the UK's achievement of net zero.

6.6.   The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42081.

Appendix A04 – Consumer Value Proposition 04

6.7.   This contains our Customer Value Proposition to: Build decarbonised communities and local energy schemes by funding solar PV on schools and community buildings in areas of high economic deprivation.

6.8.   The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42078.

Appendix A05 – Consumer Value Proposition 05

6.9.   This contains our Customer Value Proposition to: Offer 1.2 million PSR customers a bespoke smart energy action plan every two years.

6.10.   The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42075.

Appendix A06 – Consumer Value Proposition 06

6.11. This contains our Customer Value Proposition to: Deliver an annual £1 million "Community Matters" Fund, funded entirely by shareholders, to achieve positive community outcomes in relation to vulnerability, environment and education.

6.12. The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42072.

Appendix A07 – Environment Strategy

6.13. Decarbonisation, environmental sustainability and the protection of the environment are key concerns for WPD, our stakeholders and society in general. In line with WPD's Values, feedback received from our stakeholders and our current RIIO-ED2 Business Plan, this strategy document details our business aspirations and our ambitions for the environment.

6.14. The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42069.

Appendix A08 – Environmental Action Plan

6.15. Our RIIO-ED2 Environmental Action Plan (EAP) sets out all of our RIIO-ED2 ambitions to meet our stakeholders' net zero and environmental responsibility expectations, by reducing our environmental impact and decarbonising our business activities.

6.16. The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42066.

Appendix A09 – Losses Strategy

6.17. Since 2013, we have produced a Losses Strategy, which is updated annually. This strategy supports our commitment to reducing losses associated with our network.

6.18. The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42063.

Appendix A10 – Customer Vulnerability Strategy

6.19. Our Customer Vulnerability Strategy outlines how we will support customers in vulnerable situations through transformational years for our energy system, with holistic, expert-led and locally-tailored services. Building on the last seven years of delivering a bespoke vulnerability strategy, we will go further than ever before to deliver 39 unique initiatives that generate positive outcomes for our customers.

6.20. The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42060.

Appendix A11 – Social Contract

6.21. Our Social Contract sets out our commitment to have a positive social impact and the actions we will take to act as a good corporate citizen, delivering positive benefits for our local communities.

6.22. The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42057.

Appendix A12 – Major Connections Strategy

6.23. The Major Connections Strategy sets out our approach to deliver continual improvement and innovation to enhance the services we provide for our major connection customers during the RIIO-ED2 price control period.

6.24. The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42054.

Appendix A13 – Climate Resilience Strategy

6.25. WPD's Climate Resilience Strategy sets out our approach to address and/or mitigate the impact of climate change across our key business areas, while ensuring WPD continues to support national (Electricity Industry) and government & internationally lead climate resilience targets.

6.26. The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42051.

Appendix A14 – Cyber Resilience Strategy

6.27. The Cyber Resilience strategy sets out our approach to maintain reliable services to our customers. Our goal is to protect and defend our Information Technology (IT) and Operational Technology (OT) digital assets from the threat/disruption of cyber-events, but should they occur, be able to quickly respond to minimize the impact of any disruption.

6.28. The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42048.

Appendix A15 – Purpose, Vision and Values

6.29. This document sets out our purpose to deliver exceptional service and support environmental and social well-being for the communities we serve. It explains how we will deliver a safe and reliable electricity supply at an affordable cost for all our customers, using local staff to deliver a local service.

6.30. The document can be found on our website at: yourpowerfuture.westernpower.co.uk/downloads-view/42045.