

Western Power Distribution Stakeholder Workshop Bristol February 2020



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1 | INTRODUCTION

On 26 February 2020, Western Power Distribution (WPD) hosted the second in a series of six stakeholder workshops aimed at gathering feedback with a view to co-creating its business plan for the next price control period, RIIO-ED2, which runs from 2023–2028. The workshop took place at the Gloucestershire County Cricket Club in Bristol. The event consisted of four presentations given by WPD representatives, with stakeholders giving their feedback during three round-table discussions and via several electronic votes over the course of the day. The full presentation can be found online here: https://www.westernpower.co.uk/downloads/132043.

The workshops covered the following topics:

Workshop One	Workshop Two	Afternoon Sessions
Network reliability	Environment	Safety and health
Network resilience	Electric vehicles	Connections
Cyber resilience	Vulnerability and fuel poverty	Workforce resilience
Whole systems approach to net zero		Digitalisation, data and DSO
Innovation and new services		

Stakeholders were asked to review the 14 headline priority topics that had been suggested by stakeholders in previous years, removing or adding to them where necessary. They were then asked to suggest commitments for WPD to deliver under these priorities. In the spirit of co-creation, the topics for each workshop were split into two sets, with half of the tables discussing the first set and the other half discussing the second set in tandem. Halfway through the workshop, stakeholders were asked to review, amend and add to the commitments suggested by a neighbouring table under different priorities in order to truly co-create these with the group as a whole.

Following each round-table discussion, stakeholders were asked to vote electronically to indicate which priorities they felt were the most important under each topic area. Each stakeholder had three votes to cast on each question, with the option of allocating all three votes to one particularly important priority or splitting their votes between two or three priorities. Importantly, the voting options also included those priorities that had been suggested in the discussions.

WPD instructed EQ Communications, a specialist stakeholder engagement consultancy, to independently facilitate the workshops and take notes of the comments made by stakeholders.

Every effort has been made to faithfully record the feedback given. In order to encourage candour and open debate, comments have not been ascribed to individuals. Instead, notes have been made of the type of organisation that each stakeholder represents.



2 | EXECUTIVE SUMMARY

The workshop began with an introductory presentation from Alex Wilkes, External Affairs Manager. Alex explained WPD's role distributing power to nearly 8 million homes and businesses across its network area. He then explained WPD's business planning process and how stakeholder engagement feeds into the company's business plan.

INTRODUCTION: THE RIIO-ED2 BUSINESS PLANNING PROCESS

Andrzej Michalowski, Planning and Regulation Special Projects Manager, outlined the regulatory framework in which WPD operates and explained how stakeholder commitments will be applied by the company. Stakeholders were then asked to introduce themselves and state their primary reasons for attending the workshop.

- Stakeholders in Bristol were very keen to discuss the government's carbon zero target of 2050 and wanted to find out more about how WPD was working to help achieve that goal.
- There was widespread interest in how WPD could roll out flexibility services to participants and how WPD was planning to increase capacity on the grid to cater for greater demand.
- Delegates from across the spectrum wanted to know more about WPD's role in enabling renewable technologies such as EV charge points and heat pumps, with many feeling that the inability to invest in the network ahead of need was stymieing sustainable local development plans.

CO-CREATING OUR BUSINESS PLAN COMMITMENTS: WORKSHOPS ONE AND TWO

The main workshop was split into two sessions. The first workshop session was presented by Paul Jewell, Policy Manager, and included the following topics: network reliability; network resilience; cyber resilience; whole systems approach to net zero; and innovation and new services. The second workshop session was introduced by Paul Branston, Regulatory and Government Affairs Manager, and included the following topics: environment; electric vehicles; and vulnerability and fuel poverty. The topics considered in both workshops and some detail of the priorities discussed are shown below.

Network reliability

- Stakeholders' top priorities in this area, 'smart grid interaction and local energy storage' and 'generation reliability, access to grid', were both new suggestions made at the Bristol event.
- Stakeholders identified another additional priority during the round-table discussions: 'proactive local information in planned outages'.
- As well as voting on ten priorities under network reliability, stakeholders created an additional three priorities that were not voted on: 'security of assets and supply', 'innovation', and 'WPD to be a statutory consultee on new developments'.

Network resilience

- The top priorities in this area were both new suggestions: 'role of flexibility to support network', and 'proactive measures, working with local planning (flood zones)'.
- Many delegates wanted to see WPD have the regulatory ability to block developments on flood plains and to do more
 to protect vital assets, such as substations, from extreme weather events.
- As well as voting on six priorities under this heading, stakeholders created a new priority that was not included in the electronic voting: 'communications process and systems'.

/ continued

EXECUTIVE SUMMARY

Cyber resilience

- Stakeholders felt that 'network security risk of power cuts due to a cyberattack' and 'incident recovery plans' were WPD's top priorities in the area of cyber resilience.
- · 'Tabletop scenario exercises' was identified as an additional priority.
- A key commitment under cyber resilience was felt to be the enacting of a coordinated, national approach to maintaining secure, resilient systems.

Whole systems approach to net zero

- Stakeholders' top two priorities were 'help local communities to achieve their net zero carbon emissions targets' and 'coordinate network planning with other utilities to find best solutions'.
- A key commitment was felt to be WPD formalising a leadership role in assisting local communities and energy groups to instigate their carbon zero plans.
- Delegates suggested a range of additional new priorities, including 'retrofitting older properties', 'WPD invest in battery storage' and 'cost / affordability make sure no one is left behind'.

Innovation and new services

- The most popular priority, 'support community energy projects to connect to the network', emphasised the point that delegates in Bristol wanted to see more support for local energy groups from WPD.
- The second most popular priority was 'facilitate EV take-up', with many citing the need for more upfront information on connections capacity and cost from WPD.
- New priorities not voted on included 'encourage research projects and innovation', 'source green technology locally', and 'balance services at a local level'.

Environment

- The most popular priority in this area, 'WPD to be net zero by 2030', won 26% of the vote and reflected stakeholders' desire to see WPD commit to really ambitious climate targets in line with those announced by many local authorities.
- The two next popular priorities were 'harmful leaks from WPD's equipment' and 'impact on local environment and impact on biodiversity'.
- As well as voting on ten priorities, delegates created a further three that were not included in the electronic voting: 'WPD to go paperless', 'green energy connections', and 'diversify pension investment'.

Electric vehicles

- The most popular priorities were 'lobby for national EV strategy' and 'facilitate electric vehicles on a mass scale'.
- Other additional priorities identified included 'vehicle to grid', 'renewable energy to provide the power for the EV network' and 'engage with experts in the field'.
- A key concern for delegates was the ability for everyone to have access to an affordable method of charging, particularly those who live in flats and terraced housing.

Vulnerability and fuel poverty

- The top two priorities in this area were 'use of new technology to support vulnerable customers e.g. batteries', which was newly suggested, and 'protect the interests of vulnerable customers in the switch to a smarter network'.
- Along with the top two priorities, an additional new priority 'data mapping, proactive targeting of planning to mitigate
 cost of low-carbon take-up' indicated a key concern in Bristol regarding the intersection of a more complex energy
 system with vulnerability.
- Delegates created a further priority that was not voted on: 'reduce fuel poverty and vulnerability'.

AFTERNOON SESSIONS

In the afternoon, there were four optional afternoon sessions on specific topics. Most of them followed a similar format as the morning workshops (a discussion on priorities and commitments), albeit without a formally facilitated discussion. The 'digitalisation, data and DSO' session, however, followed a more informal format.

- 'Safety and health' was hosted by Paul Woodward, Safety and Environment Manager.
- 'Connections' was hosted by Vanessa Buxton, Connection Policy Engineer.
- 'Workforce resilience' was hosted by Carl Ketley-Lowe, Engineering Policy Manager.
- 'Digitalisation, data and DSO' was hosted by Paul Jewell, Policy Manager.

Safety and health

- The top priorities for stakeholders were 'raising awareness of the dangers of electricity to members of the public' and 'working collaboratively with stakeholders and legislators to share H&S best practice', although it should be noted that only two stakeholders voted on these.
- Two new priorities were also suggested, which were 'response to threats such as coronavirus' and 'multi-agency cooperation and training.'
- Stakeholders suggested a whole range of new commitments for the next business plan. Many of these focused on how to ensure the mental well-being of WPD staff as well as how to foster cooperation and training between different organisations, particularly with the fire service.

Connections

- In terms of the business plan, stakeholders' main priority was newly suggested in the discussion session 'investment ahead of need'. They also suggested new priorities of 'flexible connections' and 'early engagement with planners.'
- Stakeholders were also asked about priorities and commitments for this year's ICE plan. In terms of priorities, 'availability of information' and 'network capacity allocation and reservation' were ranked highest by a fair margin. Following on from this, most of the suggested commitments related to the provision of more information.

Workforce resilience

- The top priorities on this topic were 'a happy, healthy and motivated workforce where WPD is the employer of choice', 'attracting new talent', and 'improving the diversity of our workforce' as top. However, it should be noted that only one stakeholder voted on these.
- A range of commitments were proposed around how to appeal to a younger workforce, how to diversify the skills base and how to attract new talent.

Digitalisation, data and DSO

- Stakeholders praised WPD for their open data policy and for actively sharing their data. They recognised some challenges associated with digitalisation, including the need to protect individual customer data and the difficulties involved in handling such vast quantities of information.
- There was a discussion about existing data, including heat maps, constraint managed zones and demand availability.

WRITTEN FEEDBACK

After the workshop, stakeholders were asked to complete a short feedback form. Some of the key findings are shown below.

- 100% of attendees who filled out a feedback form told us that they found the workshop either 'very interesting' or 'interesting'.
- 57% of stakeholders 'strongly agreed' that they had had an opportunity to make points and ask questions, while 37% 'agreed'.
- 87% 'agreed' or 'strongly agreed' that the right topics were discussed on the day.
- 54% thought EQ Communications' facilitation was 'very good', with 37%, opting for 'good'.
- 97% felt the venue for the day was either 'very good' or 'good'.



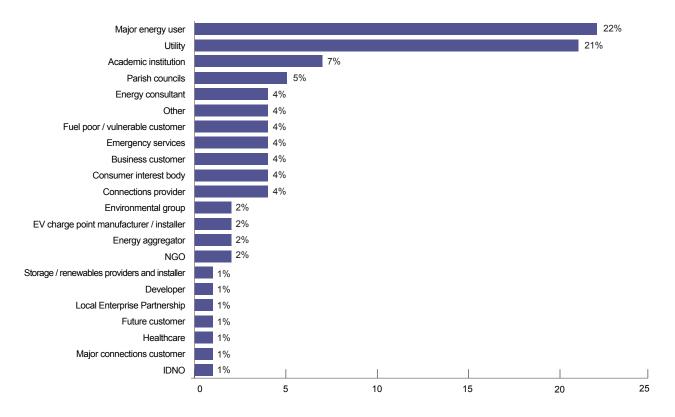
3 | ATTENDEES

A total of 76 stakeholders attended the workshop, representing 64 organisations The organisations represented on the day are shown below:

- Avon Fire & Rescue Service
- · Avon Local Councils Association
- · Bathford Parish Council
- Bristol City Council
- Bristol Water
- BRUSH Switchgear
- Business West
- Cardiff Council
- Centre for Sustainable Energy
- Citizens Advice
- · Citizens Advice Plymouth
- · Combe Hay Parish Council
- · Deerhurst Parish Council
- Devon County Council
- Dodington Parish Council
- · e.park
- Emersons Green Town Council
- · Energy and Utilities Alliance
- · Forest of Dean District Council
- Geldards LLP
- Gloucester City Council
- GMP Contracting Services Ltd
- Green Nation
- Hanham Abbots Parish Council
- Hinton Blewett Parish Council
- Hoare Lea LLP
- innogy Renewables UK
- Jacobs Engineering
- · Keynsham Town Council
- Long Ashton Parish Council
- Malvern Hills District Council
- Mid Devon District Council

- National Police Estates Group
- Nempnett Thrubwell Parish Council
- North Bristol NHS Trust
- North Somerset Council
- Norton Manor Camp
- Retired chartered electrical engineer
- Royal Mail
- RSK Group
- · Scottish and Southern Electricity Networks
- · Sedgemoor District Council
- Sembcorp Energy UK
- · Somerset County Council
- Somerset West and Taunton Council
- South Dartmoor Community Energy
- South Gloucestershire Council
- South West Energy Hub
- South West TUC
- Stantec UK
- Teignbridge District Council
- Tesla
- The Resilience Centre Ltd
- The Schumacher Institute
- The University of Bristol
- Transport for Wales
- TriConnex
- Ubley Parish Council
- Wellow Parish Council
- Wessex Water
- Westbury on Severn Parish Council
- Wiltshire Wildlife Community Energy
- Wychavon District Council
- Yate Town Council

During the electronic voting, delegates were asked to identify which stakeholder group they belonged to. The graph below summarises the results.





4 | INTRODUCTION: THE RIIO-ED2 BUSINESS PLANNING PROCESS

Prevalent on stakeholders' minds in Bristol was the government's target of carbon zero by 2050, and the often more ambitious targets of councils and local authorities in the West Country. These delegates wanted to know how WPD fit into the future energy picture, to what extent it was working to support renewable generation and how it was planning to increase capacity on the grid. In this vein, many stakeholders were keen to see WPD roll out more flexibility services and be able to invest ahead of need to provide the reinforcement that the network requires in order to cope with the predicted increasing demand.

Delegates also identified EV charge points and heat pumps as areas of interest and concern. These issues intersected with conversations around sustainable housing and development more generally, with many worried that either the grid could not cope with developments that used substantially more electricity in the drive to carbon zero, or that housing was being planned that was not, conversely, sustainable enough.

Other issues that arose from this initial session included local and network resilience, and how WPD was working to safeguard customers and communities vulnerable to power cuts. An overarching point was made that often the language used within the energy industry could feel alienating and opaque, and that WPD could do more to make it accessible for the everyday, non-expert consumer.

1. WHY HAVE YOU ATTENDED TODAY?

"I work in renewable energy development. We have wind projects in South Wales. I'm interested in the extent to which the electricity network is suitable for a decarbonised future regarding EV and the electrification of heat. In particular, in the north of Wales, there's frankly no grid and lots of opportunities for renewables. I'm here to bang the drum for investment ahead of need." Storage and renewables provider / installer

"Somerset is working towards carbon neutrality by 2030. Net zero is a big ask considering the gaps in government policy. WPD is working towards the target, but I want to know how we can work together to achieve it in a whole system approach." **Parish council**

"I'm from Devon County Council and I'm overseeing the process to outline how Devon can become carbon neutral by 2050. I'm interested in flexibility initiatives, as we need to become more flexible with the huge numbers of renewables required for the network. We will also need to double our electricity in order to power our heating and vehicles." **Local authority**

"I represent Cardiff and Wales' fastest growing community. I met with WPD a few months ago to discuss capacity issues as we develop new homes. They don't have electric charging points. Is that because of capacity or because WPD aren't working hand in glove with local communities? At the moment we have a housing crisis and we haven't got it right. There is driven demand for development but not necessarily sustainable development." Local authority

"I work in emergency management and am here to find out about WPD's approach to resilience." **Local authority**

"I run a company which deals with electric vehicle charger installation. We operate charge points and provide them for customers. I'm interested in how you'll cope with the large projected uptake in EV." **EV charge point manufacturer / installer**

"There are 45 different police forces in the UK all with autonomy but many of the issues we face are the same. The pressing energy issue for us is the electrification of the fleet, [with] lots of new PCCs due for election in May. We need to know where we are going to get the power for these. It's just a general request because as we get more electrified, how can we guarantee we will get the power? In terms of going green we need to know how we will be provided with the capacity for this. If we have 35 motorway vehicles coming in, all needing to charge in a very short space of time, that's a huge amount of strain on the system." **Emergency services**

"We have just been informed that there are plans for 5,000 new eco houses in my parish by 2040 and I want to know how it will be possible to achieve that with the electrical supply available." **Connections provider**

"I work in energy management and my principal objective for attending is to understand the network a bit more and its vulnerabilities. I work on communicating with our communities and how to meet any needs that people have in the interim of power outages. Severe weather is one of the topics that will be relevant for me today." Local authority

"The language that is used in these conversations is alienating. The way these subjects are presented make me feel excluded from the conversation." Parish council

5 | <u>NETWORK RELIABILITY</u>

The most important priorities suggested by stakeholders when asked to vote on the theme of network reliability were 'smart grid interaction and local energy storage', with 24% of the vote, and 'generation reliability, access to grid', with 14% of the vote. These were new priorities that had been put forward in the discussions, rather than by stakeholders at previous engagement events.

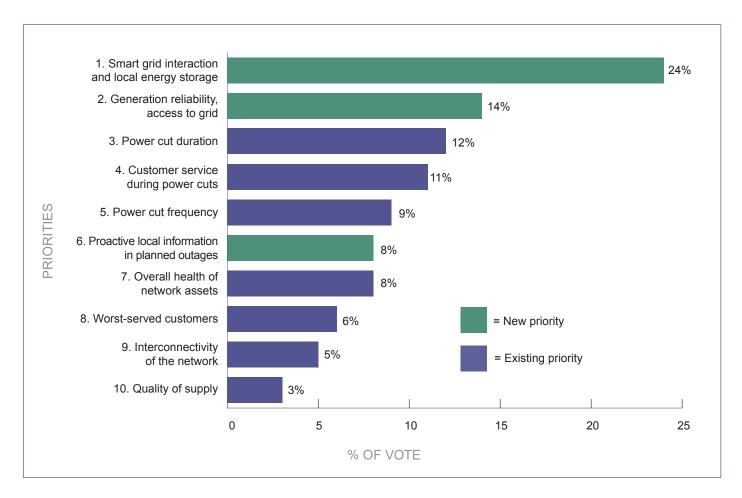
Delegates placed great importance on smart grid interaction and local energy storage in terms of improving the overall reliability of the network, urging for greater integration to improve response and fix times when issues arose. Isolated smart grids were seen as a risk to overall network reliability. In that context, local energy storage was seen as a critical tool in increasing the reliability of the network, and stakeholders wanted to see WPD able to invest more in the capabilities and potential offered by battery storage.

Generation reliability and access to grid was also seen as a high priority in Bristol, with representatives from renewables providers, community energy groups and charities emphasising that unplanned outages on the network negatively affected their ability to reliably produce profit from their distributed generation sources. A commitment to improving grid resilience for distributed generation customers was seen as critical to improving network reliability and also fed into the larger picture of moving the country towards its net zero targets by 2050.

As for power cut duration and frequency, it was felt that impact assessments were a useful tool to measure the effects of power outages on customers and communities, with many suggesting a survey distributed to those affected following a power cut. The point was made that 'every outage is an opportunity to learn and to see what the consequences were', a principle which could help WPD better identify where the sensitivities in the overall system lay.

PRIORITIES

The graph below details the priorities for this topic ranked in order during the electronic voting. It includes those priorities that had been previously suggested by stakeholders, as well as some new priorities that were suggested during the table sessions.



NETWORK RELIABILITY

The table below includes new priorities that were suggested by stakeholders during the table sessions but were not included in the electronic voting afterwards. These are numbered for reference purposes. The order does not imply prioritisation.

Additional stakeholder priorities (not voted on during the electronic vote)		
11. Security of assets and supply	12. Innovation	13. WPD to be a statutory consultee on new developments

PROPOSED COMMITMENTS

Stakeholders were then asked to start identifying commitments against these priorities. These have been set out under the priority headings below, which are in the order that stakeholders ranked the priorities in the electronic voting. Where no commitments were suggested against a given priority, this has been noted.

Priority 1: Smart grid interaction and local energy storage — Proposed Commitments

- a) Focus on integrating smart grids, making it easier to fix issues when they arise
- b) Encourage uptake of local energy storage to increase local resilience
- "Smart grid integration is an important new priority that has not been mentioned before either." **Charity**
- "There needs to be a greater understanding of the fact that it's not just the grid that gets affected by power outages. As the grid becomes more distributed and smarter, everything needs to work together better. The smart grid needs to be better integrated and not done in isolation." **Charity**

"We're not too far away from building houses with battery storage to fill in gaps in electricity supply." **Parish council**

"If you have power storage in your own house you can have a certain amount of local resilience, and that could be helped by having extra resilience services that you could pay for." **Parish council**

Priority 2: Generation reliability, access to grid — Proposed Commitments

- a) Focus on mitigating the effects of outages for distributed generation customers
- b) Commit to improving grid resilience for distributed generation customers

"WPD needs to think about the network capacity for distribution generation operators as a new priority. An outage in WPD's network can have a knock-on effect and knock us out for days, as we can't generate. Grid resilience for generation operators needs to be properly covered." **Charity**

"The issue is having an unplanned outage in the middle of winter when it's windy and your turbine could be generating money." Storage and renewables provider / installer

"Access to the grid needs to be more reliable." Community energy group

Priority 3: Power cut duration — Proposed Commitments

- a) Create impact assessments for different sectors, such as businesses and homes
- b) Focus on preparing the most vulnerable for the effects of a power cut
- c) Continue to work to bring down the average power cut duration, with a goal of zero faults

"On the screen it said the average time power is down is 25 minutes. Twenty-five minutes sounds like a long time to be without electricity. I expect it to be driven downwards as a commitment." **Domestic customer**

"It might be impactful after a power outage to do a survey to see how people are affected. Every outage is an opportunity to learn and to see what the consequences were. You therefore might start to build a picture that could point out vulnerable customers, businesses and NGOs. Then you'd start to see the sensitivity issues."

Major energy user

"In the past, we've not had generators or welfare provided until hours into an incident, and we've had people stuck. We're told they need to identify who is vulnerable first, but this wastes time. We need to share vulnerable data information because access to information is important." **Emergency services**

"You need to get the message out that there are vulnerability services on offer." **Local authority**

Priority 4: Customer service during power cuts — Proposed Commitments

- Maintain your focus on prioritising those customers on the PSR
- b) Collaborate cross-utilities and communities to ensure effective backup power systems
- c) Focus on communications before and during a power cut, working on smarter options, such as a web chat and localised social media feeds

"The biggest priority for me is the customer service. From what I understand, the customer service department contacts vulnerable people in power cuts." **Consumer body**

"The home phone line will soon be disappearing, so maybe WPD should provide little UPSs to keep people's internet on when there is a power cut." **Connections representative**

"It is about promoting whatever the options are and not just one option, which of course people may not be aware of. On your digital option on the phones, you could ask people to try web chats first." **Major energy user**

"The national information isn't massively useful to me, but more localised or regional information would be. If regional teams could have more tailored emails they could send to the local authority, we could then use our social media feeds with thousands of people on the distribution list to support WPD's communications. This could be when there is a power outage or in the event of an emergency." **Local authority**

"There needs to be better communication about the app for power cuts, especially for remote and elderly customers. People don't know about these services."

Parish council

"The texts or updates about power cuts could be publicised more widely." **Major energy user**

Priority 5: Power cut frequency — Proposed Commitments

- a) Maintain your focus on a maintenance programme to service and update the network
- b) Focus on understanding systemic implications such as generation, distribution and use changes in the shift to DSO
- c) Prioritise weak points in the network, such as end of the lines

"As long as maintenance is good, power cut frequency is out of WPD's control. [Power cuts] are unwanted, but generally not deliberate. A commitment would be to simply continue committing to maintenance." **Healthcare body**

"I think you need to work better on communication with maintenance sites and changes to the network. Then we could put contingency plans in place accordingly." **Healthcare body**

"A major thing that WPD could do is understand the systemic implications of reliability failures. These reliability failures could have a significant knock-on effect for the transport system, for example. Further collaboration is needed to mitigate them." Local authority

"In considering the overall health of the network, do you wait until equipment fails to replace it? We often see dips in the network due to maintenance happening quite far down the line." **Healthcare body**

"If you put a battery in someone's home and they're at the end of the line, that could help." **Consumer body**

"Upgrading the supply. I'm told that the frequent power cuts are because we're at the end of a line that used to come down from Worcester, but clearly the electricity isn't getting through. We'd like you to focus on the ends of the lines." **Parish council**

Priority 6: Proactive local information in planned outages — Proposed Commitments

While this was established as a new priority, and received 8% of the vote from stakeholders, no formal commitments were articulated against this priority in the discussions. The following verbatim comments were, however, captured during the workshop.

"Make what you are doing transparent, including the number of outages you are having in the winter months rather than the summer months." Community energy group "People complain about power cuts but how many of them are actually planned outages? We had a recent instance where there was a miscommunication in that people thought there had been a power cut, but it was actually planned works." **Community energy group**



Priority 7: Overall health of network assets — Proposed Commitments

- a) Create accurate forecasting models of future energy demands and replace assets incrementally to meet those needs
- b) Provide better, clearer information on the maintenance and replacement of assets
- c) Prioritise low-carbon objectives when replacing assets

"In terms of network reliability and the overall health of assets, what I would like to see is some sort of forecast or assessment on the replacing or refurbishing requirements for the future. We are a growing community and will work towards a greater need for greater capacity. It's not just a case of improving existing assets but also improving the network in other ways, such as by increasing capacity. People are anxious about whether the provisions now are fit for the future." Local authority

"Regarding the overall health of network assets, you need to have a plan and you need to make sure it's modular, because you can't do it all at once." Local authority

"I'm not sure that WPD are always aware of the health of their assets, so a commitment should be awareness and long-term thinking when reinvesting in the network. In terms of all of it fitting together, you should look at whether the flexibility correlates with reliability." **Local authority**

"You can see the government's direction of travel on carbon so even if you took a pessimistic view on EV you could still increase the amount of assets incrementally as a target." Storage and renewables provider / installer

Priority 8: Worst-served customers — Proposed Commitments

- a) Provide compensation for worst-served customers, taking into account both frequency and duration of outages
- b) Commit to reducing worst-served customer numbers to zero and look at providing backup options for the worst-served, such as battery storage
- c) Have a clearly articulated plan for the improvement of problem areas, creating heat maps of worst-served locations
- d) Define the term
 'worst-served' more
 clearly, perhaps
 changing to 'most
 challenged', and set
 realistic parameters
 as to what these
 customers can expect
 from your service

"I think the name 'worst-served customers' is terrible. It sounds as if it is the customers that are the worst. So, change the name." **Domestic customer**

"There's no commitment there about how to reduce worst-served customers. Now you're saying there are 6,300, but it should come down to zero." **Domestic customer**

"In the Forest of Dean, we have a lot of 'worst-served customers' because it's full of trees. In an ideal world there would be some consideration of pricing for those worst-served because of their rural location. There should be some form of financial compensation for their power outages." **Local authority**

"WPD needs to be clear so that everyone can see if they are in the 'worst-served' category, and what the process is for them to stop being there." **Utility**

Priority 9: Interconnectivity of the network — Proposed Commitments

- a) Set a target for fewer planned outages and ensure that planned outages that do occur are both notified in advance and at optimal times
- b) Focus on expanding capacity through flexibility services and vehicle to grid technology

"As an operator of these things, if you know there is going to be a planned outage, let people know because then you can go in and service machines while they're not running. So I'd have some target on timing and the proportion of outages that are notified in advance." Storage and renewables provider / installer

"We should be managing outages better but we also need the capacity to take as much as we can from various outlets in the winter too and therefore outages then will not be best suited." **Connections provider** "It makes a big difference to us when you do work on the grid and if you give us an outage in July, it will affect us with regard to solar-generated electricity but less so in December. You have to be strategic about these planned works and outages." Community energy group

Priority 10: Quality of supply — Proposed Commitments

- a) Maintain a focus on safety, including power surges
- b) Address the impact of supply quality on new technologies, such as EVs
- c) Promote resilience options, with a focus on brownouts for both homes and businesses, and replace assets to improve power quality

"I'd like to raise a point of something that affected where I live. I don't think it's up there but a year ago we had a huge power surge that knocked out a lot of electrical items in people's homes. Does that come under any of those? I was told that this is not an infrequent occurrence." Parish council

"When it comes to quality of supply, if you look at the broadband model, people are happy to pay more for a better service, but that's not the case for electricity." **Local authority**

"Brownouts are a priority that need to come under quality of supply." **Healthcare body**

"If you have an old system, I'd like to see the areas in which you are updating and improving equipment. You could replace assets to deal with the quality of supply." Parish council

"If you have power storage in your own house you can have a certain amount of local resilience, and that could be helped by having extra resilience services that you could pay for." **Parish council**

Priority 11: Security of assets and supply — Proposed Commitments

While this was established as a new priority, no formal commitments were articulated against this priority in the discussions.

Priority 12: Innovation — Proposed Commitments

While this was established as a new priority, no formal commitments were articulated against this priority in the discussions.

Priority 13: WPD to be a statutory consultee on new developments — Proposed Commitments

a) WPD to work with local planners and provide full capacity information in advance.

"It is common for a trial period when things are just beginning. Is the fact that WPD aren't a statutory consultee of utilities being mentioned as an issue?" **Major energy user** "You can appreciate that this requires changes in national legislation. The difficulty for WPD is for example, operating in Wales, the Welsh government is responsible for planning so this may not be the same for England. Wales is reviewing a new government bill that will likely receive royal assent. How do we and WPD feed into that?" **Local authority**



6 | NETWORK RESILIENCE

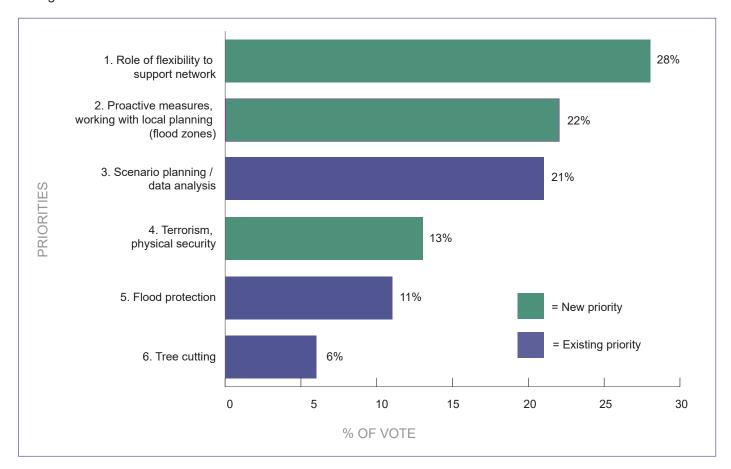
When asked to vote on their priorities around network resilience, delegates favoured 'role of flexibility to support network', with 28% of the vote, 'proactive measures, working with local planning (flood zones)', with 22%, and 'scenario planning / data analysis', with 21%.

Both 'role of flexibility to support network' and 'proactive measures, working with local planning (flood zones)' were new priorities identified by stakeholders during the discussion sessions. Delegates felt that flexibility was key to improving general network resilience, particularly in terms of balancing demand during periods of flooding, uncertainty and risk. They also wanted to see WPD take a much more proactive role in working with local planning teams, housing developers and local authorities: the risk of building on flood plains was a point raised again and again, particularly by parish councillors and local authorities. They felt that WPD should have the right to block developments they assessed to be at risk of flooding, and that developers should shoulder the cost of flood defences if they knowingly built in high-risk areas.

Turning to data analysis and scenario planning, stakeholders wanted WPD to focus on the predicted future impacts of climate change, particularly in the light of more frequent extreme weather events. They felt that more collaboration between agencies—including emergency services—to produce risk assessments and worst-case scenario planning was necessary. A focus on the maintenance and replacement of at-risk assets was also advocated, with many citing examples of substations and transformers in areas prone to flooding. It was understood that this would need a certain amount of investment ahead of need, with some delegates proposing the expensive but more resilient option of undergrounding.

PRIORITIES

The graph below details the priorities for this topic ranked in order during the electronic voting. It includes those priorities that had been previously suggested by stakeholders, as well as some new priorities that were suggested during the table sessions.



The table below includes new priorities that were suggested by stakeholders during the table sessions but were not included in the electronic voting afterwards. These are numbered for reference purposes. The order does not imply prioritisation.

Additional stakeholder priorities (not voted on during the electronic vote)

7. Communications process and systems

PROPOSED COMMITMENTS

Stakeholders were then asked to start identifying commitments against these priorities. These have been set out under the priority headings below, which are in the order that stakeholders ranked the priorities in the electronic voting. Where no commitments were suggested against a given priority, this has been noted.

Priority 1: Role of flexibility to support network — Proposed Commitments

While this was established as a new priority, and received 28% of the vote from stakeholders, no formal commitments were articulated against this priority in the discussions. The following verbatim comments were, however, captured during the workshop.

"I think flexibility in the network should be a part of resilience. Flexibility is extremely important for the future of network resilience." **Local authority** "We will need extremely flexible systems because of the changing nature of power." **Local authority**

Priority 2: Proactive measures, working with local planning (flood zones) — Proposed Commitments

a) Influence planning policy – make developers pay for flood defences around new builds.

"Proactive measures. I never see you object to planning applications in flood zones, which presumably increases your vulnerability to flood damage. So if it's in a flood zone and it's going to cost extra to install, do you get paid extra? It seems to me that that's a developer offloading a cost onto me as an electricity customer." **Parish council**

Priority 3: Scenario planning / data analysis — Proposed Commitments

- a) Plan proactively for the impacts of climate change
- b) Take a lead on multi-agency emergency planning
- c) Continue to maintain the health of your assets, particularly in the light of extreme weather events
- d) Create 1 / 100 year, worst-case emergency-planning scenarios

"You could include adapting to the future predicted impact of climate change, for example planning for the increase in summer storms." **Parish council**

"Widening the scope when it comes to weatherbased priorities is something that we should consider adding. Wind, hail and heat can also affect assets." **Local authority**

"For climate change and flood protection, we've been experiencing flooding that has exceeded all worst-case scenarios in terms of climate change. What scenarios are being used? You need to think about these scenarios with the new data that you have." **Charity**

"One in 100 years planning is more in tune with now than one in 1000 years planning." **Emergency services**

"We need flood protection links with local authority planning teams so we can access flood areas. WPD's business continuity is to protect these areas." **Emergency services**

"Flood protection is the most important for me at the moment, particularly during the winter months. During the 2007 floods, we were 2cm from the generator being flooded and Gloucester was nearly evacuated. Please continue investing in flood protection for your assets." **Parish council**

Priority 4: Terrorism, physical security — Proposed Commitments

a) Monitor and strengthen the potential vulnerabilities of the network, including third-party risk assessments

"Physical security is another priority. What about terrorism?" **Parish council**

"With regard to third-party risk assessment, one of the vulnerabilities is about a supplier like Nissan not upgrading their charging software, causing everything to start charging at the same time. Another is making sure the network risks of getting that wrong and network implications are fed into the standard process. You don't seem to be considering that at the moment." Consumer body

Priority 5: Flood protection — Proposed Commitments

- a) Implement more strategic tree planting for river flood reduction
- b) Have an influence on planning policy, working with local authorities and developers (particularly in high-risk flooding areas) to assess risk, cost and viability
- c) Proactively
 manage and
 replace at-risk
 assets, such as
 substations and
 transformers,
 and invest in
 undergrounding
- d) Invest in R&D to explore alternative methods of flood protection
- e) Forecast the future case for vulnerable customers in high risk flooding areas

"We've got a transformer that's right on the edge of the floods at the moment, so we're got three of four meters of water; another 500mm and it's had it, so it's how you protect that. There's an issue around building on floodplains, but it's about how you protect your facilities from water. Look at the flood risks of that particular area: is there anything particularly proactive that you can do? It's how far you can look ahead because if we're forecasting more water, what happens then?" Local authority

"You need to talk to councils [and] engage first rather than wait for the council's reply. It needs to be more of a two-way conversation. It's about providing capacity information in advance, giving a little bit more information and being open with what can't be done commercially." **Connections developer**

"A lot of local authorities have land on floodplains so maybe more thought should be put in as to what is built on floodplains." **Local authority**

"If you are going to have substations on floodplains you need to have it costed in from the very beginning." **Parish council**

"In terms of cost effectiveness, if we are expecting more floods and gales, it may be more cost effective in the future to spend more on underground cables." **Consumer body**

"Can the staff at the substations erect temporary cover solutions as and when they need or are the systems installed permanently? I had an experience where a substation near us wasn't clear about the barrier protection in place to protect it and we had a pond overflowing that could potentially damage it." Local authority

"I don't know whether this is within the remit of WPD. There's been a lot of talk about beavers holding water back. I'm not saying that specifically, but can you look at other alternatives to improve flood resilience?" Storage and renewables provider / installer

"Does increased flooding affect the definition or way that WPD deals with vulnerable customers? I don't' know whether anyone has done any work on this." **Charity**

Priority 6: Tree cutting — Proposed Commitments

- a) Ensure there is a tree planted for every tree cut, for neutral carbon impact
- b) Focus on species of tree for cutting and replacement
- c) Focus on engaging communities and stakeholders in tree cutting policy and make it simple for customers to report issues

"In the net zero world, are you thinking about tree replacement in that context? As a commitment, I'd like at least like-for-like replacement." **Charity**

"Tree cutting comes under resilience in general. Where they need to be cut down, ensure you plant trees elsewhere. Tree coverage is not enough for you to not replace trees." **Local authority**

"On the issue of tree planting, the type of tree that is planted is relevant. Some trees release more oxygen than others, and there are also landscape considerations in that planners want a variety of trees."

Major connections customer

"Tree cutting is a big issue for us. You cut things down, then we get alerted and we have to clean up after them." **Local authority**

"You need to link with the local authority on tree cutting." **Emergency services**

Priority 7: Communications process and systems — Proposed Commitments

a) Provide customers with information on network issues and recovery timeframes

"There needs to be a timeframe for recovery. It's important to have recovery targets and inform people about them." **Local authority**



7 | CYBER RESILIENCE

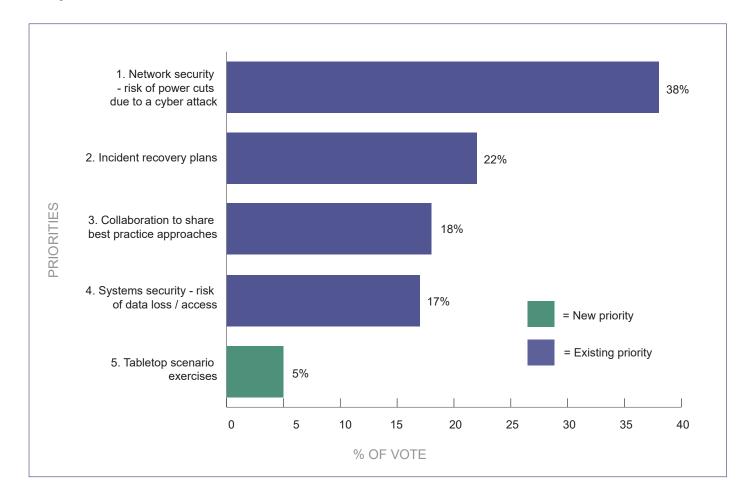
Stakeholders voted on their top priorities under the heading of cyber resilience. The most popular priority was 'network security – risk of power cuts due to a cyberattack' with 38% of the vote, and the second favourite was 'incident recovery plans' with 22% of the vote.

Delegates felt that WPD needed to make sure that addressing the risk of power cuts due to cyberattacks was coordinated on a national level. They also wanted to see WPD commit to exploring every technological solution available to tackling cyber security, including greater automation and app-based systems. Furthermore, stakeholders urged WPD to keep up to date with the latest hacking technology and to ensure that the network has robust procedures to isolate vulnerable sections in the event of an attack.

As for incident recovery plans, stakeholders wanted to see WPD have clearly defined recovery targets. They also warned against making customers overly 'paranoid' by flooding them with too much information about the number—and severity—of averted hacking attacks. WPD should, they said, simply be 'at the top of their game', and carefully choose what information they release to the public on cyber security and when. Delegates also urged WPD to tackle the 'paranoia' issue on the subject of data sharing and smart meters, identifying a general lack of awareness and fear around these issues. This was seen as a drawback in the push for DSO, as smart meters become more important to the way that customers manage their energy use and WPD manages the network.

PRIORITIES

The graph below details the priorities for this topic ranked in order during the electronic voting. It includes those priorities that had been previously suggested by stakeholders, as well as some new priorities that were suggested during the table sessions.



PROPOSED COMMITMENTS

Stakeholders were then asked to start identifying commitments against these priorities. These have been set out under the priority headings below, which are in the order that stakeholders ranked the priorities in the electronic voting. Where no commitments were suggested against a given priority, this has been noted.

Priority 1: Network security - risk of power cuts due to a cyberattack — Proposed Commitments

- a) Do more work on a
 governmental, national level to
 address the risk of power cuts
 due to cyberattacks
- b) Explore technological solutions to cyber security and keep on top of hacking technology
- c) Ensure your systems are consistently up to date and have procedures to isolate

"It seems to me that cyberattacks are more of a national threat than an individual one." **Major connections customer**

"All WPD can do is stay ahead of the hacking technology. Having a collaborative network is key for this." **Charity**

"With cyber, every company will be employing people for security. Is there a national network for that? Are there regulations to work together?" **Parish councillor**

"You should have procedures in place so that you can isolate a section of the network and ensure that it doesn't spread everywhere in the event of an attack." **Local authority**

"Could WPD not use an app-based system to increase automation in its systems with a view to improving supply and resilience?" **Consumer body**

Priority 2: Incident recovery plans — Proposed Commitments

- a) Set clearly defined goals and parameters for recovery times
- b) Stay at 'the top of your game' in cyber security but don't flood customers with too much information on averted hacks

"There needs to be a timeframe for recovery. It's important to have recovery targets and inform people about them." **Local authority**

"It's better to just reassure people that you're on top of things. Does it matter to the public if I've been attacked 20 times and stopped them all? It's about how you get the message across that you're at the top of your game without telling them everything that is happening. It's difficult. You don't want to keep hammering away at them but it's more about the psychology. If you keep telling somebody about cyberattacks, they'll either start thinking the world is ending tomorrow or that it's a genuine concern." **Utility**

Priority 3: Collaboration to share best practice approaches — Proposed Commitments

- a) Ensure that data is shared safely and securely between collaborating agencies
- b) Collaborate with other expert bodies including government and emergency services
- c) Educate and inform your customers (particularly as regards the safety of smart meters) and other relevant partners on your cyber security best practice

- "I assume that WPD will be doing the best that the government requires in terms of data protection." **Domestic customer**
- "We're also just starting a project with WPD looking at what data isn't technically at risk that could be published and could be manipulated somehow in the future. In line with this idea that certain categories could be controlled, you could have semi-open data where you know who is having access to it and why." **Charity**
- "There must be two-way communications about best practices to help combat cyber-terrorism." **Charity**

"Some of my members are worried that their smart meters can be hacked and there are issues with their supply and billing. There are many things that are not clear about them and that creates a worry that they could be prone to cyberattacks." **Consumer body**

"I think that an awareness campaign is needed as there is a lot of suspicion about smart meters. However, they can play a role in the future electricity set-up." Local authority

Priority 4: Systems security; risk of data loss / access — Proposed Commitments

- a) Commit to maintaining the utmost security of customers' data
- b) Be open and transparent with customers in the event of a data breach
- c) Commit to external cyber security testing and educate and inform internally on the outcome

- "The safety of customer data is crucial." Parish council
- "Customers need visible assurance that their data is protected in the event of a cyberattack." **Healthcare body**
- "They need to be open if they do have an attack. I expect any company to tell me if they lose my data." **Domestic customer**

"Self-reporting to the Information Commissioner and making that public would be a key step toward reassurance for customers." **Local authority**

"It would be good to detail your spending and efforts on cyber resilience to the customer." **Healthcare body**

"Is there much external testing on your cyber resilience and who does that testing? This information should be easily accessible." **Local authority**

Priority 5: Tabletop scenario exercises — Proposed Commitments

While this was established as a new priority and received 5% of the vote from stakeholders, no formal commitments were articulated against this priority in the discussions. The following verbatim comment was, however, captured during the workshop.

"WPD are part of the local resilience forum and I would hope that if there was something significant, they would organise a conference to get all partners on the line. This is how it should be managed but I haven't been to any tabletop exercises organised by WPD before. I have had this with gas pipelines but not from an electricity point of view." Local authority

8 | WHOLE SYSTEMS APPROACH TO NET ZERO

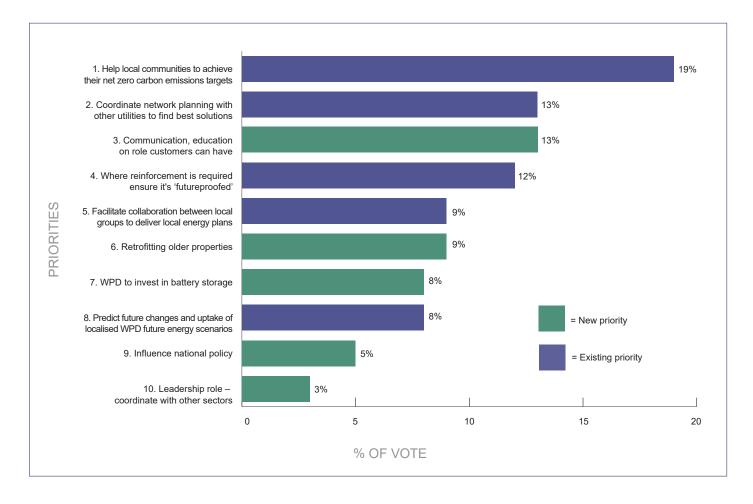
When delegates were asked to vote on the order of their priorities under the theme of using a whole systems approach to net zero, the most popular were 'help local communities to achieve their net zero carbon emissions targets' and 'coordinate network planning with other utilities to find best solutions'. New suggestions that were voted on included 'retrofitting older properties' and 'WPD to invest in battery storage'.

Stakeholders in Bristol were serious about WPD formalising a leadership and engagement role with local communities in the drive to net zero: many expressed concern at the idea of 'non-experts operating in an expert arena' who needed guidance and support. Others wanted to see better access to investment and incentives for local energy initiatives, while most stressed the point that without a national policy framework to reach net zero, it was hard to see how much change WPD could feasibly enact.

There was broad consensus that all utilities will need to collaborate on both network planning and predicting energy future energy scenarios that involve, for example, the outlawing of new gas boilers, the uptake of EV and the proliferation of renewable generation onto the grid. Delegates also wanted to see incentives for greater cross-agency coordination and collaboration. A commitment that arose against several of the priorities was the ability of WPD to be able to invest ahead of need, particularly where it could see reinforcement was going to be needed in order to enable the country to reach net zero by 2050. In all cases, stakeholders wanted to see WPD have the regulatory capacity to be proactive, strategic and forward thinking.

PRIORITIES

The graph below details the priorities for this topic ranked in order during the electronic voting. It includes those priorities that had been previously suggested by stakeholders, as well as some new priorities that were suggested during the table sessions.



WHOLE SYSTEMS APPROACH TO NET ZERO

The table below includes new priorities that were suggested by stakeholders during the table sessions but were not included in the electronic voting afterwards. These are numbered for reference purposes. The order does not imply prioritisation.

Additional stakeholder priorities (not voted on during the electronic vote)			
11. Cost / affordability – make sure no one is left behind	12. WPD to announce net zero target	13. Reduce losses in the electricity network	

PROPOSED COMMITMENTS

Stakeholders were then asked to start identifying commitments against these priorities. These have been set out under the priority headings below, which are in the order that stakeholders ranked the priorities in the electronic voting. Where no commitments were suggested against a given priority, this has been noted.

Priority 1: Help local communities to achieve their net zero carbon emissions targets — Proposed Commitments a) Formalise engagement with communities over local renewable projects and take a leadership role b) Provide incentives and financial support for zero-carbon energy projects c) Drive changes to national planning and investment policy that support net zero

"Communication is key. Residents and businesses need to be aware of how they'll participate and the role they play. They don't know at the moment." **Parish council**

"Enable us to work with you. If you badge yourself as a local organisation, people will come to you. You need to match the local authorities' style." Community energy group

"We don't have to keep reinventing stuff. Communities can be told what is possible and be helped to do it." **Major energy user**

"Incentives should be more localised within communities. WPD should provide grants for entire communities at a time to turn small towns into energy hubs that can be mined for other local towns in power outages and emergencies." **Consumer body**

"There's a lot of funding available but it's a minefield with all the different information. It would be great if you could offer support on financial planning and applications, such as how to access particular types of funding or grants." **Parish council**

"In terms of moving towards net zero, it must be considered achievable. WPD will not achieve this unless it has help from across the political spectrum. I would like to see WPD have a bold approach in forming a plan longer than 5 or 10 years. They need a 30 year plan that requires government investment over this longer period. You can't plan for net zero without continuity moving forward, especially if party members change." Local authority

Priority 2: Coordinate network planning with other utilities to find best solutions — Proposed Commitments

- a) Formalise a cross-utility approach, including large commercial users, IDNOs and aggregators, with incentives for collaboration
- b) Lobby for invest ahead of need with a coordinated approach in line with other utilities

"Another area is that at a local authority level, they're thinking about their own net zero targets. It struck me that they're not engaging with other stakeholder groups on this, including WPD, councils, gas and transport. You worry that these things are done in silos. Engagement needs to be multilateral." Storage and renewables provider / installer

- "The whole systems approach needs to be more whole systems utilities. For example, all new builds should all be three-phase and there should be places to charge your EV." **Local authority**
- "In terms of reinforcing the network, it's an extremely big digging process. To ensure disruption is minimal, you need to collaborate with utilities, and on a geographical level." **Parish council**
- "I think the coordinating with other utilities is an important one whether you're digging a hole in the road or fixing it, the cost on other utilities is a lot. In order to improve capabilities for the environment, this is really important." **Connections provider**

Priority 3: Communication, education on role customers can have — Proposed Commitments

While this was established as a new priority, and received 13% of the vote from stakeholders, no formal commitments were articulated against this priority in the discussions. The following verbatim comment was, however, captured during the workshop.

"People don't know about heat pumps. Part of facilitating the transition must be to educate people and make it a normal concept. You know more about this than us." Community energy group

Priority 4: Where reinforcement is required, ensure it's 'future-proofed' — Proposed Commitments

- a) Lobby for investment ahead of need in areas of the network, provided certain criteria are met
- b) Strategically reinforce the network to prioritise demand and generation that meet net zero targets
- c) Consider changing the charging mechanisms on reinforcement so that developers cannot hoard capacity

"Obviously the network must be future-proofed. Pay the big bills now to save in the future if it is needed for zero carbon." **Community energy group**

"As a customer I think it'd be very helpful for DNOs to get into future-proofing, but it would require a policy." **Connections provider**

"As part of the investment in the local network, every household on the grid needs to be given three-phase charging. This needs to go downstream and upstream. Electrifying the grid will be impossible without this." Charity representative

"Developers are concerned that they won't have the capacity for certain renewables on the network. There needs to be more collaboration in terms of finding out what neighbouring areas are doing. WPD needs to make sure that it has the wider view of capacity planning." **Local authority**

"With future-proofing, you should commit to being a statutory consultee on planning proposals, otherwise how can you know what is coming? We need more joined-up thinking." **Parish council**

Priority 5: Facilitate collaboration between local groups to deliver local energy plans — Proposed Commitments

- a) Coordinate cross-agency initiatives to reduce demand and promote the use of flexibility services
- b) Formalise an engagement policy with local authorities and developers on net zero targets and planning
- c) Lobby to become a statutory consultee on planning applications

"What we do to our housing is going to prove hugely important. If there is a big shift in transport then we need to reduce demand and consider housing design for the future as well. We need to identify intelligent places where this could work." **Consumer body**

"You need a more formalised engagement policy with local authorities. It's about affording parties the confidence to take a decision on net zero."

Parish council

"You have to work with the building regulation people and lobby to become a statutory consultee." **Major energy user**

"Are you looking at demand reduction, for example? As we go towards net zero, perhaps we ought to be looking at every tool. In terms of a commitment, it would be demand reduction initiatives. Both you and we have trialled different things but sometimes demand goes up." **Charity representative**

"You also need to invest in the local networks in order to support local regions' transitions to a carbon zero future. In my county, we're aiming to do so by 2035, rather than the government target of 2050, so the infrastructure needs to be in place." **Local authority**

Priority 6: Retrofitting older properties — Proposed Commitments

While this was established as a new priority, and received 9% of the vote from stakeholders, no formal commitments were articulated against this priority in the discussions. The following verbatim comment was, however, captured during the workshop.

"WPD should look into the scope for retrofitting existing homes and what the capacity is at a sensible price." **Local authority**

Priority 7: WPD to invest in battery storage — Proposed Commitments

a) Lobby government to allow for investment in battery storage

"Is there a role here for storage, too? Could there be a commitment to investigate means of storing power? That feeds into best use of renewables." **Parish council** "In terms of collocating, battery storage, being able to own storage will allow you to manage those peaks and troughs. Having battery storage is linked." **Connections provider**

"There needs to be greater investment in battery storage so that we can run our community energy projects. This will help you move along towards net zero." **Charity representative**

Priority 8: Predict future changes and uptake of localised WPD future energy scenarios — Proposed Commitments

- a) Work collaboratively with industry, other utilities and local authorities to share data that best predicts uptake of renewables and green technologies
- b) Strategically focus on outages, localised isolation points and alternative connection paths with regard to renewables.

"We looked at whether you can add additional isolation points so the energy can still get into the grid." **Connections provider**

"People don't want to invest in areas where there will be outages." **Connections provider**

"WPD should provide better access to open data to help us plan and know where we need to go in terms of installing EV charge points. The data we have access to is not always totally up to date." **Local authority**

Priority 9: Influence national policy — Proposed Commitments

While this was established as a new priority and received 5% of the vote from stakeholders, no formal commitments were articulated against this priority in the discussions. The following verbatim comment was, however, captured during the workshop.

"National planning policy needs to focus on electric vehicles. We should influence national policy to deliver targets." **Local authority**

Priority 10: Leadership role – coordinate with other sectors — Proposed Commitments

a) Lobby government for changes in the regulatory framework that would allow you to take a formal leadership role

"We need a strategic approach at policy and governmental level." **Local authority**

"With helping local communities, is there also a role for WPD to take leadership on explaining why a certain target may not be achievable?" **Utility**

Priority 11: Cost / affordability; make sure no one is left behind — Proposed Commitments

a) Work with government and Ofgem to develop a fair approach, which might include incentivising low-carbon technology to make it affordable for all

"The big issue that we are raising is that no one is left behind with regard to vulnerable customers and achieving net zero. I have raised this in relation to willingness to pay and there are issues around the extent to which consumers will pay for investment, and when is it appropriate for consumers or government to pay." **Consumer body**

Priority 12: WPD to announce net zero target — Proposed Commitments

a) Set a date for zero-carbon emissions from the business

"Your net zero target should be more ambitious." **Local authority**

Priority 13: Reduce losses in the electricity network — Proposed Commitments

While this was established as a new priority, no formal commitments were articulated against this priority in the discussions.



9 | INNOVATION AND NEW SERVICES

Delegates were invited to vote on their most pressing priorities under the heading of innovation and new services. The top priority was 'support community energy projects to connect to the network' with 16% of the vote, the second was a new priority (facilitate EV take-up) with 13%, and the third was 'roll out flexibility services for domestic customers' with 12%. As well as voting on ten priorities, four of which were new, stakeholders created four additional priorities that weren't voted on: 'encourage research projects and innovation', 'source green technology locally', 'balance services at a local level' and 'innovation inside buildings'.

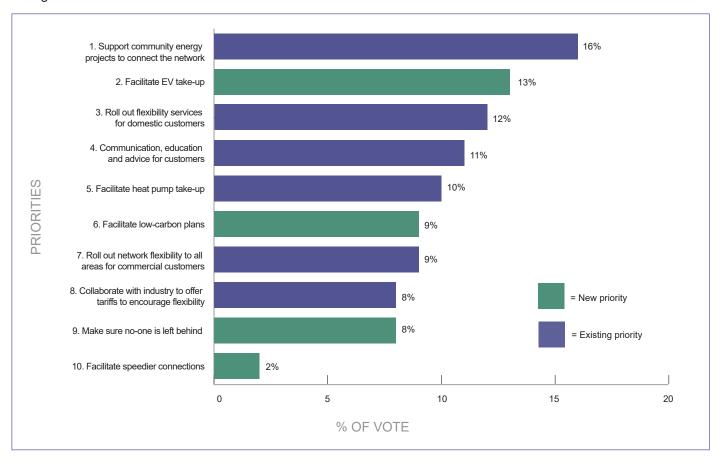
Stakeholders wanted to see WPD financially incentivise local community energy projects, arguing that differentiated connections charges and meaningful financial packages were critical to encouraging greater participation. Pitting community projects against commercial ones was seen as counter-productive, and many delegates urged WPD to raise the issue with Ofgem. Education, advice and support were also seen as crucial to the successful development of local projects, with many advocating the creation of a 'one-stop shop' in different network areas. Others wanted to see WPD able to invest in battery storage, which was still seen as a somewhat opaque option for local energy projects. Many pointed out that with greater storage capacity, local networks could become more resilient, more flexible, and prevent surplus generation from going to waste.

Facilitating EV take-up was a new priority articulated in the discussions, and for many the most pressing issue was centred around costs of connections for charge point developers and the lack of street-side charge points. Delegates pointed out that until a large-scale, nationwide infrastructure for charging was in place, it simply wasn't realistic to expect a wholesale uptake by consumers.

With the advent of increasingly complex energy services and innovations such as flexibility markets and heat pumps, stakeholders once again reiterated the value of quality communication, education and advice. 'Use layman's language' was a suggestion which cropped up repeatedly, as was a clear directive for WPD to make the services and incentives in that regard available and accessible to all. On flexibility, delegates wanted to see WPD put pressure on suppliers to offer decent time of use tariffs, and floated the idea of an opt-out—rather than an opt-in—approach to domestic flexibility. As with heat pumps, stakeholders advocated clear guidance from WPD on the benefits and requirements of each service and technology.

PRIORITIES

The graph below details the priorities for this topic ranked in order during the electronic voting. It includes those priorities that had been previously suggested by stakeholders, as well as some new priorities that were suggested during the table sessions.



INNOVATION AND NEW SERVICES

The table below includes new priorities that were suggested by stakeholders during the table sessions but were not included in the electronic voting afterwards. These are numbered for reference purposes. The order does not imply prioritisation.

Additional stakeholder priorities (not voted on during the electronic vote)			
11. Encourage research projects and innovation	12. Source green technology locally	13. Balance services at a local level	14. Innovation inside buildings

PROPOSED COMMITMENTS

Stakeholders were then asked to start identifying commitments against these priorities. These have been set out under the priority headings below, which are in the order that stakeholders ranked the priorities in the electronic voting. Where no commitments were suggested against a given priority, this has been noted.

Priority 1: Support community energy projects to connect to the network — Proposed Commitments

- a) Work to create incentives and financial packages, such as differentiated connection charges, for community energy projects
- b) Devise educational, advisory programmes for community energy projects with detailed information, dedicated points of contact and business models
- c) Lobby to invest in energy storage to allow for more local flexibility

"Do you charge the same for community energy projects and commercial projects? Maybe you should push back on Ofgem's regulations on this." **Charity**

"Is there a way of offering bursaries so that volunteers for community energy schemes can travel to these stakeholder events and not incur the costs themselves?" Community energy group

"I suppose that WPD are looking for opportunities to up their network. At a community level, an issue that we come across is who is funding all of these new projects. A balance needs to be struck between WPD and consumers." **Connections provider**

"Regarding this issue around storage in South Wales, I know National Grid pushed constraint on you, but can you work with them to bring forward the date of storage deployment or look at other alternatives? So [develop] whole system plans to tackle storage constraints." Storage and renewables provider / installer

"You should engage with community groups that may be trying to crowdfund projects like wind turbines or solar panels. It could be more beneficial for them to put in storage instead." **Local authority**

"We need more information so we understand the whole structure. Inform planners and councillors. Use social media to give advice and educate." **Community energy group**

"I work in the generation distribution industry and we need to have energy storage in order to be able to increase the capacities required." **Charity**

"You should provide energy management plans for community energy projects." **Parish council**

"It would be great for WPD to support the local customer with energy management. Because you're not a supplier, you can be more objective in terms of advice to consumers. As a specific commitment, have one-stop shops within communities across your network area." **Utility**

Priority 2: Facilitate EV take-up — Proposed Commitments

- a) Make clear the costs of connections for EV charge point installers and developers
- b) Work towards facilitating the roll-out and best usage of street-side EV charge points

"There should be mechanisms on the public connections systems to help people understand the costs of EV development up front." Major energy user

"People need to have an app on their phone that takes into account not just the location of charging points but the state and maintenance of those charging points too." **Local authority**

'It would be useful to have one about how to facilitate home charging for those who don't have off-street charging, so if you have every lamp post as an EV charger then you would have to reinforce the network on that street, but EV home charging is something that we have to look at. If you went to a street over there which only had on street parking and put a 22kW charger on every street corner then the network wouldn't be able to cope, so the question is how you're hoping to schedule chargers. Putting a 32A plug in your garage is a bit different to putting a 32A plug on every single street light.' **EV charge point manufacturer / installer**

Priority 3: Roll out flexibility services for domestic customers — Proposed Commitments

- a) Make flexibility an optout, rather than an op-in, service
- b) Work on innovation projects to devise greater automation and better use of smart meter data to enable customers to confidently participate in flexibility services
- c) Better engage customers on the benefits of flexibility
- d) Collaborate with suppliers and developers to create better flexibility tariffs and incentives for domestic customers

"Rather than offering flexibility as an option, have it as an opt-out arrangement." **Major connections customer**

"I'm wondering how you can incentivise domestic customers using smart meters to contribute to flexibility." **Major energy user**

"WPD is doing network flexibility around its network needs, but it's a systems issue, not just a network issue. It's about balancing supply and demand nationally. So there's a challenge in engaging people on a wider scale in flexibility and creating that bigger picture. It's more complicated, but the DNO is much closer to people, so it has a better chance of engaging people. Integrating markets for national and local services will be important." **Major energy user**

"There has to be communication and collaboration between WPD and the suppliers with introducing tariffs." **Domestic customer**

"Can you simplify your flexibility markets and provide a virtual picture of the network on your website?" Community energy group

"Rolling out network flexibility to all customers is an education programme." **Parish council**

"You'll need a degree of automation and certainty. It's zero sum: for every penny we save, someone else pays it who doesn't know how to. Sophisticated customers don't pay for it, so the domestic side who are less able pay more." Large energy user

Priority 4: Communication, education and advice for customers — Proposed Commitments

- a) Proactively reach out to stakeholders, community energy projects and businesses, and focus on making a 'one-stop shop' for advice
- b) Focus on making the language used around complex energy issues and markets as simple and as accessible as possible
- c) Work closely with third parties such as schools and LEPs to increase the spread of accessible, digestible information and education

- "I think that education and advice should be a key commitment. It's amazing what's out there in terms of funding and support for renewable technology, but a lot of people wouldn't know [about it]. WPD need to be proactive in educating the public and their customers about that." **Connections provider**
- "Do you do much with schools in the way of education? You should tell schools what you are doing to reach net zero and getting them involved with it." **Domestic customer**
- "A big education piece around local generation is required." **Utility**
- "Everything, from vulnerability to consumer engagement, all comes down to the big six [energy companies]. Maybe send out an email to say 'go online to see how you can save energy'. We know the most effective way of changing behaviours is not to put it on the website. It is to write to people directly." Large energy user

"WPD are actually better at engaging with customers through their annual newsletter, for example. However, it has too much information." **Connections developer**

"Communication and working with intermediaries could help with the spread of messages. We hear of other existing organisations like third parties that get messages out the most effectively. Customers need to be aware of big changes so WPD should work with grassroots-style organisations who have this contact with customers already." Consumer body

"We need to understand things in layman's terms." Major energy user

"We need accessible communication that simplifies the language so that we are not assuming that the people that you are talking to understand the acronyms." **Community energy group**

Priority 5: Facilitate heat pump take-up — Proposed Commitments

- a) Create a heat strategy plan that takes into account the network implications of a mass take-up of heat pumps
- b) Make clear the investment needed on the network and in retrofitting older properties to prepare for heat pumps
- c) Roll out innovation projects like Electric Nation to influence housing developers to install heat pumps into well-insulated homes
- d) Better educate customers and developers on the benefits and requirements of heat pumps – tackle the 'information gap'

"The challenge is that if everyone takes up heat pumps, that it's a big strain on the electricity supply." **EV charge point manufacturer / installer**

"WPD can play a leading role in bringing together all the right partners to facilitate the changes required. I think that it would be really helpful. With heat pumps, you need to do the whole house. The house would need to be better insulated too. If a coordinated approach is taken with retrofitting, the results could be effective." **Local authority**

"I would like to see case studies be made available about heat pumps to help other developers. Information sharing never hurts." **Local authority** "People don't know about heat pumps. Part of facilitating the transition must be to educate people and make it a normal concept. You know more about this than us." **Community energy group**

"In strategic developments, that's where you need to focus heat pumps – on new housing. You have to get the infrastructure in place first." **Local authority**

"As for heat pumps, I can easily establish whether my roof or land is suitable for a wind turbine or solar panel, but for heat pumps there is an information gap."

Parish council

Priority 6: Facilitate local low-carbon plans

a) Work closely with local planners to more successfully enact local low-carbon plans

"We need more information so we understand the whole structure. Inform planners and councillors. Use social media to give advice and educate." Community energy group

"Planners have a huge job and need all the information." **Parish council**

"It's a great idea to offer information guides or training to councils. Planners are busy people and just want the basic information." **Community energy group**

Priority 7: Roll out network flexibility to all areas for commercial customers — Proposed Commitments

- a) Devise an environmental incentive for commercial flexibility
- b) Standardise the financial incentive for commercial flexibility, and make sure the cost of flexibility is not prohibitive for businesses
- c) Educate commercial users and showcase the benefits of flexibility

"On the business side, it's firstly about helping them to understand how they're using energy at the moment. Secondly, it's about helping them to manage their own energy. Thirdly, it's about flexibility. I'm working with companies that have different solutions, so for me it's about how they get to showcase what they can do and offer. They can give that network benefit to WPD. Then we can do that brokering bit and show other companies how they can save their money. Collaboration is important. We work with tech companies and others." Consumer body

"Regarding flexibility, for commercial customers, flexibility comes at a cost, which at a certain low scale is a bit prohibitive. It's really only a concern for commercial customers. It's often the communications aspect." **Local authority**

"A mixture of the financial and environmental incentives because people know that they would be getting value out of something." **Connections developer**

"With incentives through tariffs, time of day tariffing needs to be linked to things that are happening within the building." **Business representative**

Priority 8: Collaborate with industry to offer tariffs to encourage flexibility — Proposed Commitments

While this was established as a new priority, and received 8% of the vote from stakeholders, no formal commitments were articulated against this priority in the discussions. The following verbatim comment was, however, captured during the workshop.

"Use your clout to get suppliers under control when it comes to smart meter tariffs. It's not fair that new customers are getting worse deals than existing customers." **Healthcare body**

Priority 9: Make sure no one is left behind — Proposed Commitments

a) Help and support vulnerable customers to participate in new services, such as flexibility

"When you roll out flexibility services, remember there are sectors of the population who can't be flexible." **Utility**

"The trouble with relying on financial incentives is that the people who are least able to use flexibility services are the ones who need this money the most."

Parish council

"On the communication side, I think there's something around helping vulnerable customers understand how they can benefit from a smarter network." **Charity**

"You need to support vulnerable customers to participate. Help people understand that by contributing to smart metering they can save a lot of money." **Consumer body**

Priority 10: Facilitate speedier connections — Proposed Commitments

While this was established as a new priority, and received 2% of the vote from stakeholders, no formal commitments were articulated against this priority in the discussions. The following verbatim comment was, however, captured during the workshop.

"Reducing lead times which facilitates speedier connections is something that needs more exploring." **Local authority**

Priority 11: Encourage research projects and innovation — Proposed Commitments

- a) Keep funding innovation projects and share case studies of best examples
- b) Research new ways of generating power, for example working with farmers to innovate around waste converted into energy

"Is there a role for example case studies? For example, you might have an exemplar housing development and you can provide this to housing developers. Influence housing and industrial developers by rolling out innovation findings." Storage and renewables provider / installer

"WPD are not generating power so I think that's where innovation needs to be more imaginative. I can't get beyond this point. New forms of energy development are needed, through research and development." **Emergency services**

"The other possibility is that there are one or two farmers in my area who are happy to burn rubbish, then have a pipe through to the property and that would generate electricity. WPD can work on creating energy from waste through working with farmers." **Local authority**

Priority 12: Source green technology locally — Proposed Commitments

While this was established as a new priority, no formal commitments were articulated against this priority in the discussions.

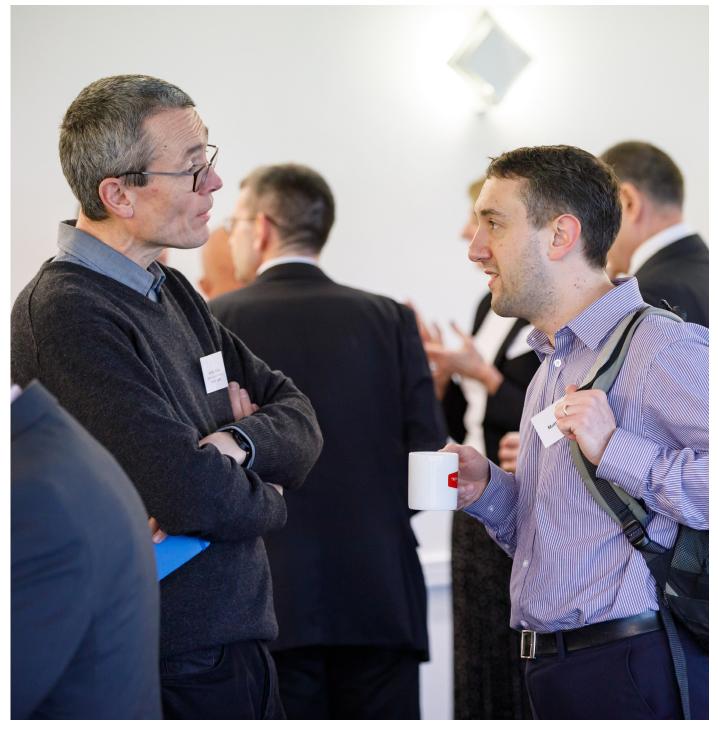
Priority 13: Balance services at a local level — Proposed Commitments

a) Provide effective forecasting and low-level, local data

"Balancing services at a local level. The effect of a lot of issues does not travel very far." Connections representative "You need to give low-level data so you can understand whether or not people will make money out of it." **Connections customer**

Priority 14: Innovation inside buildings — Proposed Commitments

While this was established as a new priority, no formal commitments were articulated against this priority in the discussions.



10 | ENVIRONMENT

Delegates were asked to vote on the priorities established under environment, and the most popular was 'WPD to be net zero by 2030' with 26% of the vote. The second most popular was 'harmful leaks from WPD's equipment' with 14%, followed by 'impact on local environment and impact on biodiversity' with 12% of the vote.

In addition to the ten priorities listed below, delegates created three further priorities during the discussions that were not subject to an electronic vote: 'WPD to go paperless', 'green energy connections' and 'diversify pension investment'.

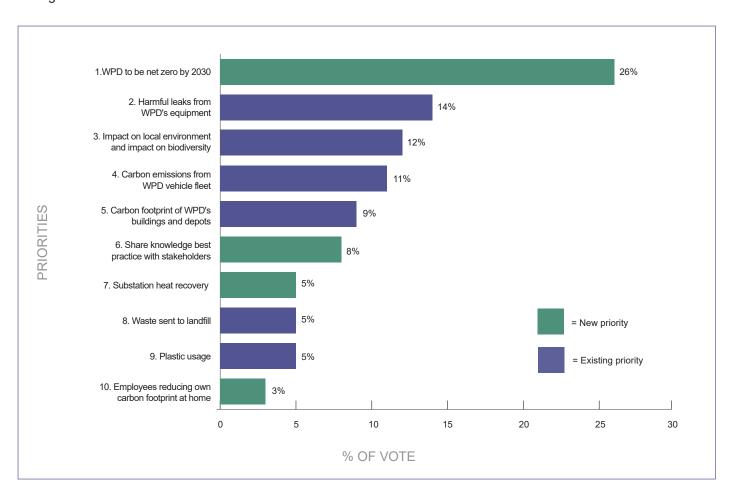
When discussing the priority 'WPD to be net zero by 2030', many delegates—particularly those from local authorities—wanted to see more alignment with council and district zero-carbon targets, arguing that with multiple bodies and agencies working towards the same goal it would become more achievable. Others pointed to a phased target as a good approach in terms of aiming for a percentage reduction in emissions by specific dates until the target of zero carbon was reached. A net zero target also fed into many of the other priorities under discussion, particularly 'carbon emissions from WPD vehicle fleet', 'carbon footprint of WPD's buildings and depots', and 'plastic usage', all of which stakeholders felt required a specified date to work towards.

Stakeholders also felt strongly about reducing harmful leaks from WPD's equipment, particularly SF6. They advocated a range of commitments, including prioritisation of the replacement of assets containing SF6. In that regard, it was felt that the current replacement rate of 1% per annum was insufficient and needed to be addressed far more urgently. Moreover, delegates advocated investment in R&D projects that develop alternatives to harmful gases along with hazard assessments for assets in locations prone to harmful leaks, with more stringent maintenance and replacement programmes in these areas.

The third most popular priority, 'impact on local environment and impact on biodiversity', saw delegates advocating targeted environmental restoration. This would involve replacing trees and plants lost to WPD activity but also looking at measures such as natural capital assets and making continual improvements to biodiversity. They also wanted to see WPD engaging with environmental experts and local climate action groups and making it clear who to contact when there was an ecological issue to report.

PRIORITIES

The graph below details the priorities for this topic ranked in order during the electronic voting. It includes those priorities that had been previously suggested by stakeholders, as well as some new priorities that were suggested during the table sessions.



ENVIRONMENT

The table below includes new priorities that were suggested by stakeholders during the table sessions but were not included in the electronic voting afterwards. These are numbered for reference purposes. The order does not imply prioritisation.

Additional stakeholder priorities (not voted on during the electronic vote)		
11. WPD to go paperless	12. Green energy connections	13. Diversify pension investment

PROPOSED COMMITMENTS

Stakeholders were then asked to start identifying commitments against these priorities. These have been set out under the priority headings below, which are in the order that stakeholders ranked the priorities in the electronic voting. Where no commitments were suggested against a given priority, this has been noted.

Priority 1: WPD to be net zero by 2030 — Proposed Commitments

- Reflect local authorities by having a more ambitious net zero target (2030) than the government's target of 2050
- b) Set cumulative targets on emissions reductions to reach net zero
- "I think you should be thinking further ahead than carbon footprinting. That's what's moved on in the last 18 months. Councils have set their net zero targets and you need to set a climate neutrality goal." **Charity**
- "The net zero target should be sooner than 2050." **Community energy group**

"You've committed to net zero by 2050, but should there be a roadmap staging points such as 60% by 2030, 80% by 2040? WPD should commit to hitting those targets, not necessarily specifying individual technologies." **Utility**

Priority 2: Harmful leaks from WPD's equipment — Proposed Commitments

- a) Prioritise replacement of assets containing SF6
- b) Invest in R&D projects developing alternatives for SF6
- c) Create risk assessments
 of assets in danger of leaking
 SF6 and prioritise these for
 maintenance

"On the harmful leaks, why not commit to removing SF6 and find alternatives? Obviously, this will require research." **EV charge point manufacturer / installer**

"There should be a plan for much faster replacement of SF6." **Local authority**

"One per cent replacement per annum of SF6 is completely and embarrassingly insufficient." **Healthcare body**

"There is also the option of replacing the harmful appliances too. There are alternatives in terms of transformers and battery systems too. Surely they could be tapped into?" **Charity**

"Can you predict risk areas for leaks?" Local authority

"WPD really needs to control the gas leaks, as the potential impact is awful. There also needs to be a huge level of maintenance for the appliances using these gases." **Local authority**

Priority 3: Impact on local environment and impact on biodiversity — Proposed Commitments

- a) Offset biodiversity where lost, replace trees and plants and commit to targeted environmental restoration
- b) Consult with local environmental groups and expert stakeholders and publicise a point of contact at WPD to report environmental issues
- c) Commit to measurable improvements in biodiversity of your estates over terms of five years

"Plant trees when you cut them down to reduce your impact on the local environment." **Emergency services**

"You should consult with experts and local environmental intelligence on the negative impact of inserting pipes." **Local authority**

"WPD should commit to the continual improvement of the biodiversity of their estates over the next five years. There are several measures that can be used, like natural capital assets. That's the only way you can show you are actually improving it."

Domestic customer

Priority 4: Carbon emissions from WPD vehicle fleet — Proposed Commitments

- a) Set a target date for zero-carbon emissions from your fleet, in alignment with local authorities
- b) Use a combination of targets, tenders and contracts to achieve electrification of smaller vehicles, biogas for larger vehicles and no new fossil fuel vehicles by a set date
- c) Incentivise staff to travel to work on public transport, by bicycle or in electric vehicles

"WPD need to make an immediate commitment to set hard targets. This includes an immediate change to electric vehicles where possible. WPD changing their own vehicle fleet would create a market demand." **Connections provider**

"Is there any reason why WPD are buying new fossil fuel vehicles? Not now, but when the vehicles come to the end of their life they should replace them with electric vehicles." **Parish council**

"In the UK, the South West has the highest amount of biogas, so there's a lot you could do in terms of using that for heavier vehicles. With vehicle fleets it's important to get the tenders and contracts and make sure that they are right, rather than saying you'll have x% by x year. You can put in the tender that it needs to be net zero and see what comes back." **Local authority**

"Aim for an 80% EV fleet, focusing on smaller vehicles, by 2025. You should also think about how you are going to incentivise your staff to potentially switch to EV." **Healthcare body**



Priority 5: Carbon footprint of WPD's buildings and depots — Proposed Commitments

- a) Play a leading role in identifying both the challenges and technological solutions to reducing the carbon footprint of WPD buildings, assets and depots invest in energy management teams, training and incentivise architects and designers to come up with green solutions
- b) Set a target for the baseline specifications of their buildings to be as green as possible – reach an 'outstanding' BREEAM rating
- c) Install PV, retrofit older buildings and commit to all new buildings emitting zero carbon

"When it comes to your depots, one of the most important things for buildings is having a good energy management team. It's in your own interest to drive energy usage down, so you should invest in training." **Local authority**

"To go a step further, you could have a competition for architects to build more interesting-looking substations in low-carbon ways." **Major connections customer**

"Energy efficiency is a term you need to be careful with. The ideas we had 50 years ago were wrong. Maybe a better term is designed properly. In other words, your buildings should be eco-friendly by design, for instance to get natural ventilation into your building." **Healthcare body**

"Install solar panels on the roofs of buildings. Retrofit your buildings for efficiency. All new buildings from now should have these features." **Local authority**

"When commissioning new projects we have specifications to make sure they are all environmentally friendly. You should be making sure you have baseline specifications, not just do it on a project by project basis." **Parish council**

"WPD should make sure the standards it is hitting are keeping up with the BREEAM standards." **Local authority**

"WPD should be going for the commercial equivalent of Passivhaus." **Parish council**

Priority 6: Share knowledge best practice with stakeholders — Proposed Commitments

a) Commit to publicising and sharing your innovations and use of low-carbon technologies

"In a wider context, we're all facing an education and communication issue with the public on net zero, specifically with heat pumps for example. Given that it's an electricity technology, there must be a responsibility for WPD to communicate this to the public. With heat networks and heat pumps, there's a danger of a backlash against that technology in the same way as smart meters. We all need to find ways to start talking about it." **Charity**

Priority 7: Substation heat recovery — Proposed Commitments

While this was established as a new priority, and received 5% of votes from stakeholders, no formal commitments were articulated against this priority in the discussions. The following verbatim comment was, however, captured during the workshop.

"There's a lot of waste heat in substations. For substations located in urban areas, the heat could be used to heat houses, like the substation behind the Tate Gallery in London. So waste heat recovery would be another priority." **Local authority**

a) Commit to zero waste sent to landfill — Proposed Commitments b) Make sure the incineration of waste is not classified under 'zero waste to landfill' c) Set a target to replace non-recyclables d) Conduct a life-cycle analysis of materials used, including in the procurement chain, and design a circular

"You've got to give yourself a target of replacing nonrecyclable old technologies with recyclable ones to work towards a zero waste future." **Local authority**

"Putting waste into incineration as opposed to landfill is not a good solution. You shouldn't be allowed to call this zero waste." **Local authority**

"WPD should set a target of zero waste by 2030." Local authority

economy

"I would rephrase 'waste sent to landfill' to 'designing for a circular economy'. If you wait until you dispose of something, you can't recover or recycle it. The process needs to be adopted earlier." **Local authority**

Priority 9: Plastic usage — Proposed Commitments

- a) Commit to using zero single-use plastics
- b) Work with sustainable suppliers on everything through your chain, from glass-reinforced plastics to envelopes

"An important point is where it says plastic usage, you need to differentiate between plastics and single-use plastics, because some plastic use is necessary."

Utility

"If you're trying to reduce plastic use, why are you using glass-reinforced plastic in your substations? Perhaps you could include a commitment to reducing the use of GRP. You could use an alternative like brick, even though it's a higher cost." Major connections customer

"Plastic usage also applies to the corporate side and in the office, so it's everything you do. It isn't just the engineering side." **Emergency services**

"You should be making sure you don't use black plastics, because they're not recyclable." **Local authority**

"Other entities need to help with the commitment of zero waste to landfill, including suppliers. They might be sending you non-recyclable materials, which means it's important to consider the procurement chain as well." **Healthcare body**

Priority 10: Employees reducing own carbon footprint at home — Proposed Commitments

a) Work with employees to encourage and incentivise a sustainable lifestyle outside of work

"Can you work with your employees to enable them to lead more sustainable lives?" Community energy group

Priority 11: WPD to go paperless — Proposed Commitments

While this was established as a new priority, no formal commitments were articulated against this priority in the discussions.

Priority 12: Green energy connections — Proposed Commitments

- a) Prioritise renewable connections to power your systems
- b) Maintain a focus on how renewable sources of energy could adversely affect resilience
- "Connections for green energy and low-carbon production need to be prioritised in WPD's systems. It needs to think about how its actions effect grid resilience." **Charity**

"It needs to think about having more reliable connections to solar panel farms rather the diesel generators." **Local authority**

Priority 13: Diversify pension investment — Proposed Commitments

a) Divest of pension investments in fossil fuels

"Pension divestment is another priority. Don't invest in fossil fuels." **Local authority**



11 | ELECTRIC VEHICLES

Delegates voted on their top priorities under the heading of electric vehicles, and the most popular priority was 'lobby for national EV strategy' with 19% of the vote. This priority was a new one identified during the discussions. The second most popular was 'facilitate electric vehicles on a mass scale', with 14%, followed by 'EV home charging (especially flats / terrace houses)' with 12% of the vote.

As well as voting on ten priorities, half of which were new, stakeholders created three additional priorities that were not voted on: 'renewable energy to provide the power for the EV network', 'engage with experts in the field' and 'driverless vehicles'.

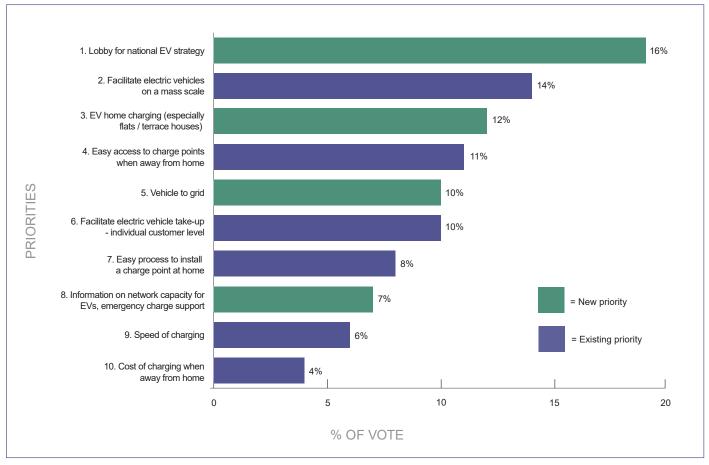
Discussing the need for a national EV strategy, stakeholders felt that a clearly defined, top-down directive from the government would have the effect of coordinating local energy plans, giving confidence to consumers and providing a framework for DNOs for their reinforcement strategies. Some pointed out that any commitment to a whole systems approach for facilitating electric vehicles had to include the government as a vital component.

Stakeholders felt that the government also needed to be involved in WPD's ability to facilitate electric vehicles on a mass scale, particularly with regard to investing in the network ahead of need. They pointed out the huge increase in capacity required for charging hubs, and wanted to see a concerted effort devoted to powering electric public transport. In a similar vein, some wanted to see different ownership models investigated, with a shift of focus away from individual car ownership and towards community vehicle sharing and car clubs.

Many delegates were concerned about the ability of vast swathes of the population living in flats and terraced houses to participate in the move to electric vehicles. To this end, they urged WPD to create a model that strategised providing power for these customers. A commitment that was articulated under another priority, 'engage with experts in the field', suggested that WPD look to best practice taking place abroad, such as charge points on bollards in Amsterdam – expertise that could be critical when considering how to provide power for EV owners without off-street parking.

PRIORITIES

The graph below details the priorities for this topic ranked in order during the electronic voting. It includes those priorities that had been previously suggested by stakeholders, as well as some new priorities that were suggested during the table sessions.



ELECTRIC VEHICLES

The table below includes new priorities that were suggested by stakeholders during the table sessions but were not included in the electronic voting afterwards. These are numbered for reference purposes. The order does not imply prioritisation.

Additional stakeholder priorities (not voted on during the electronic vote)			
11. Renewable energy to provide the power for the EV network	12. Engage with experts in the field	13. Driverless vehicles	

PROPOSED COMMITMENTS

Stakeholders were then asked to start identifying commitments against these priorities. These have been set out under the priority headings below, which are in the order that stakeholders ranked the priorities in the electronic voting.

Priority 1: Lobby for national EV strategy — Proposed Commitments

a) Work with the government and Ofgem to deliver a clear, coordinated EV strategy

"Surely there should be a national strategy that WPD should fit into. You need to make sure this is a standardised strategy across the board." Local authority

"The government are stalling on this. You need to pressure them to be proactive because this strategy needs to come from the government." **Parish council**

"Pushing for clarity in government strategy should be a priority. This will focus all [of them] and give realistic targets to all your other priorities." **Major energy user**

"In the previous session we talked about whole systems approaches. This needs to be part of a wider debate and a parliamentary issue." **Consumer body**

"WPD should be lobbying the government for a national electric vehicle strategy." **Local authority**

Priority 2: Facilitate electric vehicles on a mass scale — Proposed Commitments

- a) Work with local authorities, developers and planners on local energy plans to ensure sufficient reinforcement and capacity for multiple car charging points
- b) Work with public transport organisations to facilitate viability of electric public transport
- c) Consider different ownership models and to support a move away from private, individual car ownership
- d) Consider the wider economic impact of a wholesale move to EVs – what happens to combustion engine-era vehicles?

"WPD needs to reinforce its network in order to electrify the public transport that could be required." **Charity**

"WPD needs to factor public transport into its plans. We can't make the transition without the infrastructure in place. It's essential." **Charity**

"WPD needs to expand its thinking beyond cars and needs to ensure that the charging capacity is in place for larger vehicles and public transport too." **Charity**

"We need to be moving towards the car club model, changing people's habits." **Local authority**

"I question whether it should be assumed that people will have the same number of cars as they have at the moment and a continuing growth of car ownership. There is the assumption that they are doing so much good but there is still damaging stuff produced from tyres and brake dust." **Consumer body**

"What is needed is a model to explore the sensitivity of the roll-out to the new infrastructure and behavioural patterns. This needs to be melded into a fiveyear and ten-year model to see if it is achievable. Ownership of vehicles is an interesting perspective." Major energy user

Priority 3: EV home charging (especially flats / terrace houses) — Proposed Commitments

a) Create a model to explore how people without access to a driveway or off-street parking can charge EVs

"I know that WPD did a survey for how people use their electric vehicles. My concern with the study is that people who tend to own an electric vehicle have their own driveway and house. If you live in a flat or terraced house with limited car parking, actually charging at home is going to be increasingly difficult. People assume you can charge at home but I don't think as the uptake increases that that will be achievable. I think there is a whole new level of discussion about rolling out EV onto the mass market." **Emergency services**

Priority 4: Easy access to charge points when away from home — Proposed Commitments

- a) Work on developing demand forecasting for EV using data from the smart network
- b) Work in partnership with charge point manufacturers and mandate universal charging
- c) Plan and reinforce strategically in collaboration with local authority planning teams to enable charge points at designated hubs

"On the 'easy access to charge points away from home' priority, one of the difficulties we've had is calculating the estimated distance from home. With a smart network, could you track demand per household by getting the postcode of the house and how much electricity the EV is using according to the data obtained by the smart meter? In other words, demand forecasting for EV." **EV charge point manufacturer / installer**

"I want to see more collaboration with anyone who wants to connect new charge points. WPD are in a position of power and are able to say whether a project is viable or not so they should be proactively sharing information about feasibility and cost." **Local authority**

"Could you be proactive in identifying car parks close to a decent electricity supply so you can anticipate capacity? In other words, align the network for optimal charging." **EV charge point manufacturer / installer**

"Obviously we are seeing the roll-out of single chargers at supermarkets, for example, but we're going to need big hubs. Wherever you go at the moment even, the charge points are already in use so it's about linking into that strategy planning." **Charity**

"I want to see universal charging systems and payment systems." **Connections developer**

Priority 5: Vehicle to grid — Proposed Commitments

a) Prioritise the development of a smart network that is capable of bidirectional charging

"There needs to be a commitment towards bidirectional charging. This will enable WPD's grid to be resilient with all the new vehicles coming onto the grid. There needs to be a smart approach adapted to the interaction between the different components." **Charity**

Priority 6: Facilitate electric vehicle take-up - individual customer level - Proposed Commitments a) Educate customers b) Be able to reinforce c) Look at encouraging d) Work with suppliers on installing EV home ahead of need to ensure community car sharing to introduce time of use charging infrastructure capacity to individual programmes and tariffs homes, retrofit older not focus entirely on homes and supply new providing individual homes with three-phase domestic charge points

"The ability for customers to understand grid connection costs at home and for developers is important."

Major energy user

cabling

"If you keep adding all this new technology for homes, you need to add three-phase connections for every home. We need to completely reinvent the concept for powering homes." **Charity**

"We also need to think about retrofitting homes at the same time." **Local authority**

"You are going way overboard by planning to install charge points in every home. Is that the best way to be going forward, or will we be sharing cars in the future? Are we putting all this unnecessary infrastructure in?" **Domestic customer**

"We need to incentivise public car sharing points rather than prioritising that everyone has charging points in their home." **Community energy group**

"We need to future-proof for charging points at home. You could design a V2G flexible tariff." **Parish council**

"Tariffs to encourage people to charge at different times." **Parish council**

Priority 7: Easy process to install a charge point at home — Proposed Commitments

- a) Work on designing and providing extensive kerb-side charging
- b) Lobby government to ensure house builders install a charge point as standard

"I'm not clear if this is WPD's responsibility but the home charging for those that don't have offstreet parking is a big priority. If you live without offstreet parking, you can't have your own personal home charger. It's not a WPD problem but it's something that's going to impact your network." **EV charge point manufacturer / installer** "There should be government policy to make sure that new developments are equipped for this energy future." **Parish council**

Priority 8: Information on network capacity for EVs, emergency charge support — Proposed Commitments

- a) Provide clear mapping and signposting on where connections are available for charge points
- b) Provide emergency rapid charge points on motorways for EVs which run out of charge

"I want to see more collaboration with anyone who wants to connect new charge points. WPD are in a position of power and are able to say whether a project is viable or not, so, they should be proactively sharing information about feasibility and cost." **Local authority**

"Emergency charging might be a safety concern, for example if an electric vehicle runs out of charge on a motorway. A way around that might be charging access points where the emergency phone is, for example." **Major connections customer**

"A priority should be making all the information needed to create EV infrastructure which is easily accessible for consumers and developers." **Healthcare body**

"If I want to put a charge point in a car park and I don't know which transformer I need to go through, finding out that information will take several weeks. This information should be instantly available." **Healthcare body**

Priority 9: Speed of charging — Proposed Commitments

- a) Be able to reinforce the network ahead of need in line with predicted growth and demand to enable rapid charging
- b) Prioritise connecting rapid charge points
- c) Make a target for connecting a certain number of rapid charge points and for encouraging flexible, slower charging at home
- d) Ensure rapid charge points for the public sector, particularly emergency services

"It's in your interest to move things this way. When EVs are in and people are more familiar, it'll be at WPD's benefit to invest ahead of time." **Connections developer**

"With speed of charging, there's a lot more power needed for fast charging. Reinforcement is needed for that, so there's a chain of events for more charging points. Who should pay for that reinforcement?" **Connections developer**

"Fast charging is the opposite of what the grid would need. For fast charging you need huge cables. To help support the grid we need slower charging, overnight." **Local authority** "Already the police force is moving to an electric non-emergency response fleet. The challenged with emergency response fleets is that they are used 24 / 7. What you are going to want is that those vehicles are all charged at all times. The last thing you want is for a response team to say they can't come out because their vehicle isn't charged. The emergency services need the facility and more vehicles to adjust to this limited capacity." **Emergency services**

"Speed of charging is essential and there's a need for battery technology to improve." **Emergency services**

"The big driver is speedy charging because nobody wants to wait forever to charge while they are on the motorway." **Healthcare body**

Priority 10: Cost of charging when away from home — Proposed Commitments

- a) Use your influence to put pressure on suppliers and charge point operators to offer fixed prices on charging away from home
- b) Consider access and cost to charge points away from home as the same issue

"I question what WPD's role can be in some of these areas. For example, how will WPD contribute to the cost, access or speed of charging? I would like to know more details of how WPD could influence these issues. What actions do you intend on taking?" Major energy user

"One option might be WPD directly partnering with a company to implement things like cost, access and speed of charging. This could also be a commercial venture that WPD could get in on at a ground level."

Major energy user

"You talk about the cost of charging and easy access as separate points but they should be the same point. There is a mathematical model that is yet to be seen which could deal with this." **Emergency services**

Priority 11: Renewable energy to provide the power for the EV network — Proposed Commitments

- a) Create a roadmap for the complete transition to renewable energy sources
- b) Collaborate with the gas industry on providing alternative sources of energy, such as hydrogen
- "There has to be an integrated systems approach. There are places with specialist needs, which need to be identified so that those needs can be met. Hydrogen can be generated locally, for example." Major energy user
- "The WPD vehicles could transfer to hydrogen too."

 Major energy user

"Hydrogen needs to be made widely available and right now it is hard to integrate this into gas networks." **Community energy groups**

Priority 12: Engage with experts in the field — Proposed Commitments

a) Look at best practice in other parts of the world, such as Amsterdam

"WPD should be looking at best practices from abroad. For example, the bollard chargers in Amsterdam could be a great model to follow." **Charity**

"There are solutions to that. There are certain cities abroad that have gone fully EV. So you need to be engaging with people abroad who have more expertise." **Local authority**

Priority 13: Driverless vehicles — Proposed Commitments

a) Consider future energy scenarios with greater numbers of autonomous vehicles – work with local authorities to plan for this

"WPD should stop people thinking they need a car and promote autonomous vehicles. It would reduce the number of cars on the road by about 70%, then you wouldn't need an increase in EVs. You don't need to own your own car. It is all about education." **Parish council**

"You won't necessarily need one electric vehicle per person in the future. With driverless vehicles, the total number of vehicles on the road will go down. You don't need to plan for everyone to have their own electric vehicle and charge point." **Parish council**



12 | VULNERABILITY AND FUEL POVERTY

Delegates were asked to vote on their most important priorities under the heading of vulnerability and fuel poverty. The most popular priority was 'use of new technology to support vulnerable customers e.g. batteries' (18%) and 'protect the interests of vulnerable customers in the switch to a smarter network' (17%). The former was a new priority identified by stakeholders during the discussions.

While no formal commitments were articulated against 'use of new technology to support vulnerable customers e.g. batteries', prevalent in the discussions was a focus on battery technology and whether or not it could be utilised as a clean alternative to backup generators for support in the event of a power cut. This, in turn, led into further discussion around low-carbon technologies and greater energy efficiency as ways for fuel poor customers to reduce their bills and for vulnerable customers to become more resilient. In many cases, stakeholders advocated WPD taking a greater role in lobbying government for effective subsidies and support for retrofitting, installing green technologies and developing a national policy framework that would ensure the vulnerable aren't left behind in the push for carbon zero.

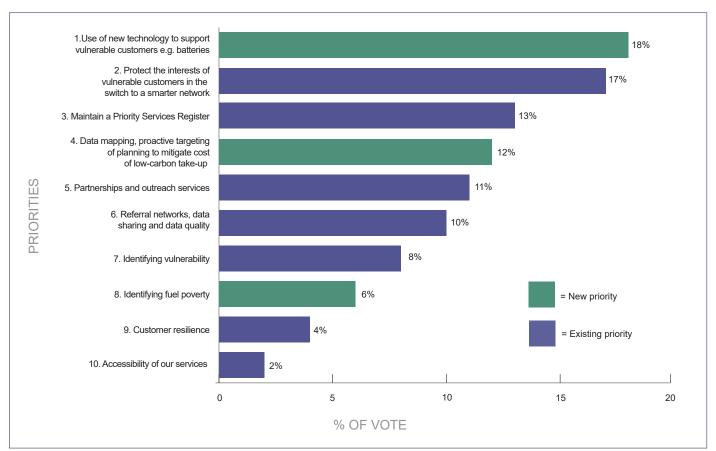
Stakeholders saw that in this push for carbon zero, energy (and how we use it) was becoming both more complex and potentially unaffordable, and they were keen to stress the importance of protecting the interests of the vulnerable in the switch to a smarter network. Commitments identified ranged from funding innovation and automation services that address vulnerability, along with greater awareness and support for services such as flexibility and smart meters that could benefit those who are vulnerable and in fuel poverty.

Data arose as a critical tool that would enable WPD, suppliers and their partners and referral networks to both identify vulnerability and work to mitigate its effects. In many cases, delegates advocated the relaxation of the rules around GDPR and data sharing, particularly as it pertained to the creation of a national Priority Services Register (PSR). Most stakeholders saw the holding of disparate PSRs as a waste of money and resources and urged WPD to work crossagency, and with Ofgem, to remedy this.

While there was broad support for the work WPD does in providing funding and support for partners and outreach services working to alleviate fuel poverty, some questioned how much scope WPD had to improve customers' lives in this area, and suggested that instead WPD use their influence to put pressure on suppliers and government to tackle the issue.

PRIORITIES

The graph below details the priorities for this topic ranked in order during the electronic voting. It includes those priorities that had been previously suggested by stakeholders, as well as some new priorities that were suggested during the table sessions.



VULNERABILITY AND FUEL POVERTY

The table below includes new priorities that were suggested by stakeholders during the table sessions but were not included in the electronic voting afterwards. These are numbered for reference purposes. The order does not imply prioritisation.

Additional stakeholder priorities (not voted on during the electronic vote)

11. Reduce fuel poverty and vulnerability

PROPOSED COMMITMENTS

Stakeholders were then asked to start identifying commitments against these priorities. These have been set out under the priority headings below, which are in the order that stakeholders ranked the priorities in the electronic voting.

Priority 1: Use of new technology to support vulnerable customers e.g. batteries — Proposed Commitments

While this was established as a new priority, and received the highest number of votes from stakeholders (18%), no formal commitments were articulated against this priority in the discussions. The following verbatim comments were, however, captured during the workshop.

"Battery supplies for vulnerable customers seems important, especially in the event of an outage." **Healthcare body**

"Could batteries run one of those motorised beds or domestic lifts for people?" **Parish councillor**

"I support providing backup batteries for vulnerable customers." **Domestic customer**



Priority 2: Protect the interests of vulnerable customers in the switch to a smarter network — Proposed Commitments

- a) Make sure that no one is left behind and that costs do not fall on those least able to pay
- b) Fund design, innovation and automation programmes that specifically target vulnerability
- c) Create a targeted communications campaign promoting services and initiatives that could help mitigate and alleviate vulnerability, such as smart meters and flexibility
- d) Lobby government for a national policy framework that mandates for support of the vulnerable in the switch to a smarter network.

"Smart sensors and the automation of systems need to be put in more frequently. The requirement to read your own meters means lots of the structures aren't fitted and equipped for this technology to be useful. Someone has to invest in the new meters to make sure no one is left behind." **Emergency services**

"WPD has to be proactive in its approach to customer communication as prices are going to go up. The costs of what WPD is having to do to move towards net zero just inevitably means that prices will go up. It becomes even more important that we invest in improving our homes to try and reduce the costs. It is far cheaper to reduce demand than to improve infrastructure. We still have the attitude that people should achieve energy efficiency themselves. Energy efficiency needs increased support as it becomes more important." Consumer body

"We need to raise awareness among consumers of how they can save energy and protect customers from the costs of the transition." **Parish council**

"Support at home using AI is going to become ubiquitous." **Major energy user**

"Protecting the interests of the vulnerable, I'm assuming that's about smart meters and flexibility services? It's about education. As much as you can make things affordable, including for the more vulnerable, I think you need to actually get people to want to engage. People being aware of what they are using, and what they can save, makes things easier." **Major energy user**

"The residents of social housing often didn't see the benefits of free electricity schemes. It is that growing divide of while we're trying to decarbonise, it does cost money. The cost does go onto a use of system charge and this is then passed on to the most vulnerable customers; maybe it is that the most vulnerable that should be given relief from this." **EV charge point manufacturer / installer**

"If WPD were to take a wider systems approach, it would stop demand going up but would need a clear overarching framework and policy. It's better for WPD to spend money on the investment and taking responsibility for steering the socio-economic process in a direction that is better for the environment, people and planet. It needs fairly large movers and shakers supported by these stakeholder groups."

Major energy user



Priority 3: Maintain a Priority Services Register — Proposed Commitments

- a) Maintain a focus on cleansing the PSR data at a minimum of every two years
- b) Work towards the creation of a national PSR, which will require working with Ofgem towards a relaxation of the rules around data sharing
- c) Continue to share best practice with other partners, utilities and DNOs

"Is two years still appropriate [as a time period to contact vulnerable customers on the PSR and evaluate their circumstances]? I know Ofgem in particular talk about how vulnerability can be transient, so reviewing the frequency of contact might be applicable." Charity representative

"There are different registers from different groups but maybe there should be a single national PSR." **Healthcare body**

"WPD should share any of its best practices with others." **Connections provider**

"There is a huge problem involving PSR with regard to data protection. We want to know where the vulnerable customers are so that we can help but can't get hold of this information due to data protection issues." **Local authority**

"There needs to be more education on the benefits of sharing data and collaboration with other partners. I agree with that idea." **Local authority**

Priority 4: Data mapping, proactive targeting of planning to mitigate cost of low-carbon take-up — Proposed Commitments

a) Challenge the regulatory boundaries around data sharing and mapping

"Utilities should use smart meter data and get permission to be able to do this." **Emergency services**

"Data needs to be shared and integrated better across the different industries." **Charity**



Priority 5: Partnerships and outreach services — Proposed Commitments b) Work closely with d) Work with the a) Focus on c) Work crosse) Engage more suppliers to agency to pool private rented with parish providing outreach reduce fuel and monitor the sector to tackle councils, housing services in poverty distribution of fuel poverty associations mental health funding for fuel and local communities poverty more closely and to increase increase support partnerships for those in and awareness of programmes fuel poverty to decarbonise available to alleviate fuel poverty

"Most of our customers have some type of mental health disorder so could you partner with mental health charities?" **Community energy group**

"The electricity network has its own box for fuel poverty, as do the suppliers and the gas network. All the money should be pooled under one provider of fuel poverty alleviation. Put that under 'partnerships and outreach'. You will get a bigger bang for your buck if you put all the money together." **Utility**

"Outreach services will be key. You need really intensive engagement." **Local authority**

"More people need debt advice and one of the main things that we find is that the help is out there but people don't know what they are entitled to. Many people out there are not aware of the services. There are a lot of people who fall through the net and if WPD could do anything to push that through with the suppliers that would be really good." **Consumer body**

"Energy usage information is not shared with WPD so it's the energy suppliers who have to raise the flag. The problem is that this is not in their interest because they want to make money." **Major energy user**

Priority 6: Referral networks, data sharing and data quality — Proposed Commitments

- a) Increase your support for referral networks through investment and engagement
- b) Continue to increase the scope of your referral network, including social care, grassroots community groups and the NHS
- c) Strive to change the rules on data sharing, allowing the use of smart meter data and the sharing of data relating to vulnerability between relevant partners and agencies

"I think that protecting the interests of vulnerable customers is hugely important, as WPD needs to act as gateway for stopping people from falling down further. The more flexible that it can be and the more referral networks, partnering and outreach that it has, the better." **Consumer body**

"Referral networks should be on lower levels, not just higher levels such as the NHS." **Parish council**

"A top priority is to encourage WPD to carry on working across other utilities. What other associations do WPD have with organisations? This could go further into working with emergency services. A more proactive approach could be taken. How does this deal with the overlap in data protection?" **Emergency services**

Priority 7: Identifying vulnerability — Proposed Commitments

- a) Map vulnerable areas, such as those prone to flooding and power cuts
- b) Raise awareness of vulnerability and the services available to provide support via a national, multi-agency campaign
- c) Collaborate with relevant partners to clearly define different types of, and changes to, vulnerability, to enable a more responsive and targeted approach to the issue

"Recognising vulnerability might be changing because of changes to benefits, for example." **Consumer body**

"We might need to better understand fuel poverty as part of vulnerability and adopt the widest possible definition [to capture everyone]. It basically comes down to cold homes and not being able to afford your energy bills." **Charity**

"There could be the use of mapping as a first thing but then also use local organisations and partnerships to gain more information." **Community energy group**

"We discussed floods earlier and just to capture it here, is there something around mapping vulnerable network areas to the PSR?" **Charity**

Priority 8: Identifying fuel poverty — Proposed Commitments

- a) Use 'social indicator mapping' to identify areas of fuel poverty
- b) Create a clear definition of fuel poverty –
 be aware that there is a difference between 'can't pay' and 'won't pay'
- "I would add something relating to social indicator mapping being used as a means of driving network planning and identifying fuel poverty. That needs to fit into the wider planning for the smart future." **Charity**
- "I agree with the idea about social indicator mapping. The fuel-poor cannot be left behind in an electrified future." **Local authority**

"Within fuel poverty, there are those who don't pay their bills because they can't afford it and those who don't pay because they are managing their cash flow. You need to separate 'can't pay' and 'won't pay'."

Major energy user

Priority 9: Customer resilience — Proposed Commitments

- a) Take a more proactive approach to working across multiple agencies (especially emergency services) to increase customer resilience
- b) Reduce the effects of power cuts by installing generators and battery storage for vulnerable customers
- c) Engage more frequently with those who will be vulnerable in a power cut, providing information such as blackout route maps and protocols

"On customer resilience, the root cause is that the vulnerable people either aren't getting the heat, or they're paying above the amount. So for customer resilience, put in things like battery storage and take over when there's an outage, or provide reinforcement to reduce power cuts. In terms of individual plans for getting generators into the homes of these people, they don't need to have a call out if they know it's going to kick in. The other issue is lack of access to the advanced technology and automation, whether from WPD or a third party such as a supplier." **Major energy user**

"Community resilience must be part of customer resilience. WPD should be at the table as a category 2 partner. A multi-agency approach is very much needed." **Emergency services**

"A DNO could act as a trusted intermediary in a customer resilience forum." **Utility**

Priority 10: Accessibility of our services — Proposed Commitments

- a) Work towards designing simple manuals and easy interfaces for new technologies
- b) Improve access to advice and guidance by using trusted partners such as Age UK, Citizens Advice and members of the community

"The accessibility of services is not quite so linked with WPD but it's more that things are too complicated to programme these days. All these new devices that come into the home are so complicated. People manage it by looking them up online but WPD need to put more technology into homes that still gives people control over them. This is the same with big buildings that are far too 'smart' for the people using them. You have to be a specialist to be able to get the best out of them. Keep it simple." **Emergency services**

"There needs to be more communication with local communities that have teenagers and tech-savvy people who could help." **Major energy user**

"You need to make sure that old people particularly aren't left behind when discussing a move to a smarter network. The way information is put across can alienate people. The accessibility of information is important." **Parish council**

Priority 11: Reduce fuel poverty and vulnerability — Proposed Commitments

a) Enable vulnerable and fuel-poor customers to become more energy efficient, increasing resilience and cutting bills

"It becomes even more important that we invest in improving our homes to try and reduce the costs. It is far cheaper to reduce demand than to improve infrastructure. We still have the attitude that people should achieve energy efficiency themselves. Energy efficiency needs increased support as it becomes more important." **Consumer body**



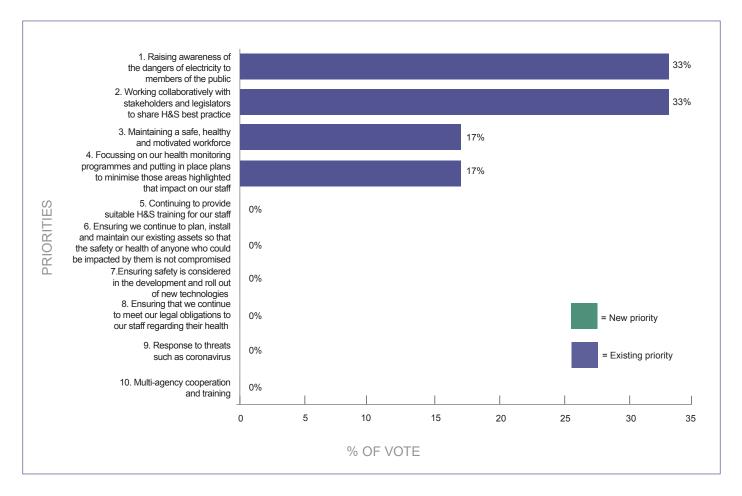
13 | SAFETY AND HEALTH (AFTERNOON SESSION)

The top priorities identified by stakeholders in this session were 'raising awareness of the dangers of electricity to members of the public' and 'working collaboratively with stakeholders and legislators to share H&S best practice', although it should be noted only two stakeholders voted on these. Two new priorities were also suggested, which were 'response to threats such as coronavirus' and 'multi-agency cooperation and training.'

Stakeholders suggested a whole range of new commitments for the next Business Plan. Many of these were aimed at ensuring the mental well-being of WPD staff, particularly those operational staff that deal with emergencies. There was also a whole range of suggestions about how to foster multi-agency cooperation and training, particularly with the fire service. For example, stakeholders wanted to see a clear point of contact at WPD for the fire service and training to understand new risks, such as electric vehicle charge points and battery storage.

PRIORITIES

The graph below details the priorities for this topic ranked in order as part of a written feedback form completed at the end of the session. It includes those priorities that had been previously suggested by stakeholders, as well as some new priorities that were suggested on the feedback form. In total, two stakeholders completed these feedback forms.



PROPOSED COMMITMENTS

Stakeholders were then asked to start identifying commitments against these priorities. These have been set out under the priority headings below, which are in the order that stakeholders ranked the priorities in the electronic voting. Those priorities that did not have any suggested commitments have not been included below.

Priority 3: Maintaining a safe, healthy and motivated workforce — Proposed Commitments

- a) Focus on mental health,
 particularly educating staff on a
 healthy work-life balance
- b) Ensure that your managers commit to leading by example
- c) Develop appropriate rotas and policies for operational teams that work out of hours and respond to emergencies

"I'm concerned about people's work-life balance. I wouldn't mind betting that you've responded to a work email outside of work hours. People are getting more and more stressed out because of this. That needs to be written into your business plan specifically."

"Educating staff to make sure they do switch off, agreements for breaks so that they have a recovery period, etc. It's also about setting a good example as a manager and good leadership. We also have an occupational health team and try to talk to our staff about issues like this and keep safety a fresh topic."

"You've got the business side of working overnight worked out very well, it's more mental health that I'm concerned about."

"You need to ensure that the staff welfare mechanism extends beyond business as usual to out of hours and emergency response. Feeling the pressure creates elevated stress. You need to have a well-established rota system including time off in lieu and recovery periods that gives your staff time to come out of emergency response mode."

"It's about having a strong line manager and incident commander. I've got a concern about overexposure. Some of your staff are more likely to see dead people. If they take overtime on top of that, they're potentially overexposing themselves."

"I think it comes down to workload and workload management."

Priority 9: Accessibility of our services — Proposed Commitments

- a) Review business continuity plans in terms of both frontline and back office staff
- b) Look at preventative measures, such as vaccinations

"With the coronavirus, when we reviewed our business continuity, our operations are the most protected because they're in a team. It's our back offices that are more vulnerable."

"We need preventative pieces such as encouraging flu jabs. Maybe some people are entitled to free flu jabs anyway. It's about making a risk assessment and applying the health and safety rulings."

Priority 10: Multi-agency cooperation and training — Proposed Commitments

- a) Undertake
 joint training and
 debriefing with
 the fire service
- b) Provide a point of contact for the fire service
- c) Run training and exercises to train the fire service on new risks, such as EVs and batteries
- d) Provide materials on topics such as power outages for other agencies
- e) Lobby planning authorities to consult with emergency services on major planning applications

"As the fire service, what kind of joint training could we do together? We do our own internal debriefing and a multi-agency one if it's a major incident. But we should talk to you if we have to work with you."

"Can we have a number to call at WPD if we do need to switch off the power or solve a problem? Even if it's just re-familiarising ourselves."

"We speak a lot about community resilience. When we speak about power outages, you need to write the safety content."

"Training and exercises with the new risks that are coming into play, i.e. EVs and batteries. We want to know if there are lots of chargers or new assets as there's more risk than a normal car park. It will all come down to you supplying the power, so whoever is supplying and installing the charging point or doing the planning should provide the data."

"Could you provide information that the fire service can include in their training? The national body could disseminate it down to other fire services. There will also be regional south-west groups. It's getting the right contacts."

14 | CONNECTIONS (AFTERNOON SESSION)

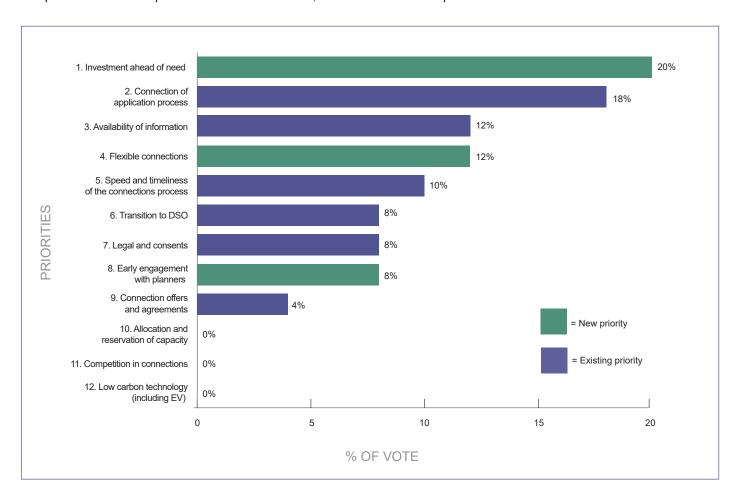
This session covered priorities and commitments for both the upcoming business plan as well as the 2020/21 ICE workplan.

When stakeholders were asked to rank their priorities for connections in the next business plan (via a feedback form), the highest ranked was a new priority suggested in the discussions: 'investment ahead of need'. This was closely followed by the 'connection application process', then 'availability of information' and another new priority, 'flexible connections.' Some of the suggested commitments included being able to have an ongoing negotiation with WPD (rather than receiving a binary answer) as part of the connections process, having an 11kV network capacity map and implementing reduced—as well as flexible—connections offers.

In terms of the current ICE plan, 'availability of information' and 'network capacity allocation and reservation' were rated as the most popular priorities by a considerable margin. Stakeholders suggested a number of new priorities, including 'flexible connections' again, as well as '11kV capacity map' and 'early engagement with planners.' Stakeholders proposed a series of commitments to include as part of this year's ICE plan, most of which related to the top priority, 'availability of information'. In general, this related to the provision of more information, particularly at the preliminary stage, with suggestions including an 11kV capacity map and anticipated demand and grid constraints. However, there was also a desire for greater transparency of information as well as simpler information for less technical stakeholders.

PRIORITIES (BUSINESS PLAN)

Stakeholders were given three votes each to allocate to their choice of priorities below by way of a written feedback form completed at the end of the session. The list of priorities was those that had been previously suggested by stakeholders, although there was space to write down new suggested priorities at the bottom. The graph below details the priorities for this topic ranked in order. In total, 16 stakeholders completed these feedback forms.



PROPOSED COMMITMENTS (BUSINESS PLAN)

Stakeholders were then asked to start identifying commitments against these priorities for the business plan. These have been set out under the priority headings below, which are in the order that stakeholders ranked the priorities when individually ranking via written feedback forms. The afternoon sessions were more informal and were not led by facilitators. Owing to the unconstructed nature of these discussions, in some instances priorities included on the written feedback forms had no specific commitments attached to them and are therefore not included below.

Priority 1: Investment ahead of need — Proposed Commitments

"Taking investment ahead of need, you could look at different options and do a cost-benefit analysis so you're able to prioritise."

"I'd second that. I understand you're developing apps so you can see what generation is taking place and where." "We need to shift the strategic approach to investment before need, i.e. investing in grid improvements now. I'd hope that the business plan takes that more strategic approach, so we can take into account all the targets / climate emergences from local authorities."

Priority 2: Connection application process — Proposed Commitments

a) Facilitate an ongoing negotiation with connections applicants rather than a binary yes / no decision on applications

"I think it would be useful to have a more formal process. For example, if someone submits a 1.5 MVA application, the rules currently say that you have to offer us a connection whatever the cost, but it would be useful to know that we're triggering an update of 1.5 MVA and whether we'd be interested in going down to 1.2 MVA. WPD are usually good at having that sort of informal phone call but it would be more useful to have the heads up [as part of a formal application process] and then re-apply with 1.2 MVA. Knowing where that break point is, where applicable, is really useful."

Priority 3: Availability of information — Proposed Commitments

a) Produce a map showing capacity below 11kV

"The visibility bellow 11kV is virtually non-existent. At that level, it would be good to see where there is capacity on your network. We need more visibility at that more disaggregated level. I'd request a commitment from you on this area. You have a map that goes down to the 11kV level, but you don't have it on the generation side."

Priority 6: Transition to DSO — Proposed Commitments

a) Ensure better collaboration between DNO and DSO

"You have a growing service around flexibility, but you have the DSO and the DNO [as separate entities] and it's about the integration of those things, i.e. including the demand management side."

Priority 8: Early engagement with planners — Proposed Commitments

"[Care homes] use a lot of electricity and you need to prepare for it. We have something like 2,500 being built in the coming years and I can see the grid being overloaded. I think that's about more engagement with planners. Even if it's two years in advance, it's still more useful than not."

"I work in a council's planning team and when we're starting to look at anticipated growth, we want to get in early with care home providers. The difficulty is with smaller applications and you can't get in so early with those. We've been working with housing developers too."

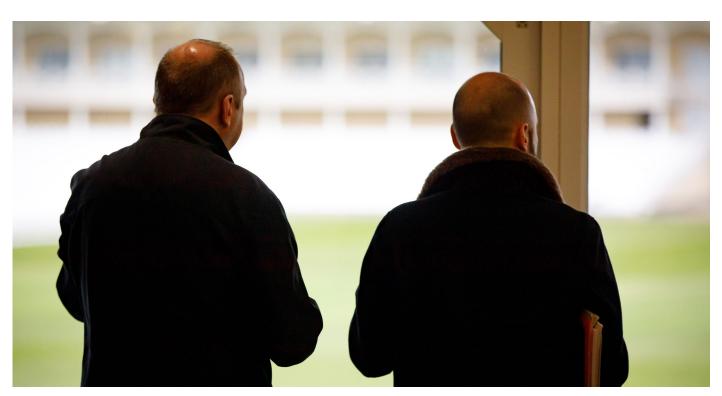
Priority 9: Connection offers and agreements — Proposed Commitments

a) Consider offering reduced connections, as well as flexible connections

"I think at the moment you offer a flexible connection and I'm not sure about whether you should have the option to have a reduced connection. Perhaps having some sort of a dialogue would be better as it's not always clear cut."

Priority 12: Low-carbon technology (including EV) — Proposed Commitments

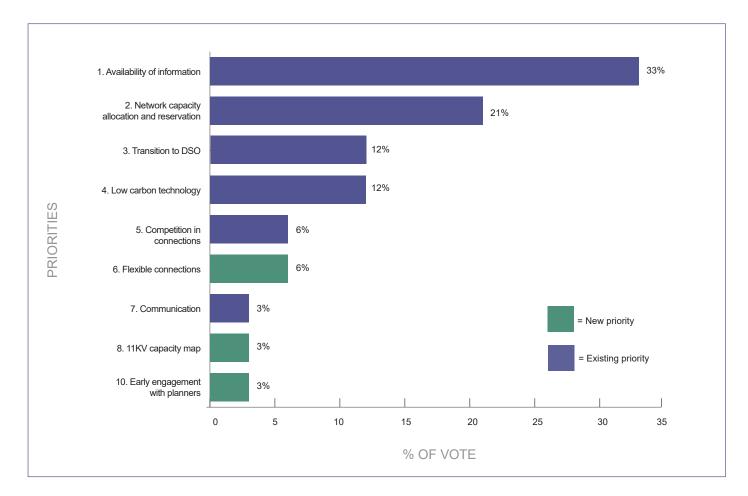
"On the connections side, there are capacity constraints with community energy and that's before the capacity needed to facilitate zero-carbon. You referred earlier to flexible connections and integrating better demand knowledge with generation. If you did that, you'd be able to see what's going on with generation. I understand you're doing pilot schemes and for me that's a really important priority. I'd put more focus on flexible generation opportunities."



CONNECTIONS (AFTERNOON SESSION)

PRIORITIES (ICE PLAN)

Stakeholders were given three votes each to allocate to their choice of priorities below by way of a written feedback form completed at the end of the session. The list of priorities was those that had been previously suggested by stakeholders, although there was space to write down new suggested priorities at the bottom. The graph below details the priorities for this topic ranked in order. In total, 11 stakeholders completed these feedback forms.





PROPOSED COMMITMENTS (ICE PLAN)

Stakeholders were then asked to start identifying commitments against these priorities for the ICE Plan. These have been set out under the priority headings below, which are in the order that stakeholders ranked the priorities when individually ranking via written feedback forms. The afternoon sessions were more informal and were not led by facilitators. Owing to the unconstructed nature of these discussions, in some instances priorities included on the written feedback forms had no specific commitments attached to them and are therefore not included below.

Priority 1: Availability of information — Proposed Commitments c) Provide more a) Produce an 11kV b) Provide more d) Provide greater e) Provide information at the information transparency connections capacity map on anticipated on what type preliminary stage information on what is viable demand and grid of generator is tailored to at an EV charge constraints holding capacity customers point location to help promote who do not the sustainability have technical agenda backgrounds, including a clear summary

"How long do you allow people to hold onto the connection? Presumably people with gas generators are going around taking up capacity. That's not only taking capacity away from others, but it runs contrary to the sustainability agenda. Is there something you could do soon to make that transparent?"

"I'm from a community energy scheme and information is what I need because I don't understand half of it! It's about making it less technical. I'd support having a summarised version of the information."

"It would be great if you could produce an 11kV map by next year."

"We work for a district council and we're installing charge points. We usually process EV applications ourselves. We go out to tender potentially involving 20 different contractors. When ask WPD what the harmonics are we sometimes then have to go back to the contractors and reject the connection. There needs to be some transparency in terms of what is actually achievable, so you don't' have to go through the whole tendering stage to find a stumbling block. Perhaps you could give us more information at the preliminary stage, in terms of what is or isn't viable in a particular location or with a particular scope of development."

Priority 2: Network capacity allocation and reservation — Proposed Commitments

a) Encourage the development of consortiums

"Under the network capacity allocation part, has there been any thought on encouraging the development of consortiums?"

Priority 4: Low-carbon technology — Proposed Commitments

a) Provide more information on future forecasts to support solar sites to collocate with battery storage

"In terms of low-carbon technology, what commitments have you got for the next year in terms of batteries, if any?"

"We have existing solar sites where we'd like to collocate battery storage on solar arrays which could help the grid in terms of balancing output, but finding information on this is causing an issue. We're seeing a significant reduction in forecast energy going forward, so all our forecasts are greatly reduced which undermines all the future business plans for renewables. I would imagine it's not just us. All the solar arrays in the south west will be worried about where all the money has gone and how we can improve the viability."

15 | WORKFORCE RESILIENCE (AFTERNOON SESSION)

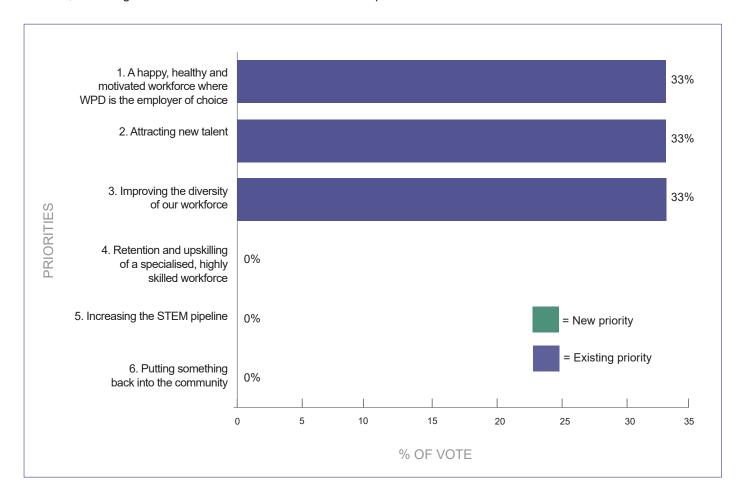
Only one stakeholder ranked the priorities in this session, but they identified 'a happy, healthy and motivated workforce where WPD is the employer of choice', 'attracting new talent', and 'improving the diversity of our workforce' as top.

The discussion centred around several key themes including how to create a modern office dynamic that appeals to a younger workforce and how to diversify the skills base at WPD from primarily an engineering background to one that reflects the skills requirements of a fast changing landscape, particularly the transition to a DSO. In terms of the latter, it was felt important to ensure that there is a culture of respect across the business that recognises the importance of having different skills and helps to nurture these.

The discussions identified a whole range of commitments to include in the business plan. As well as including commitments against the themes and priorities highlighted above, a series of commitments was suggested for how to attract new talent / increase the STEM pipeline, including sponsorship opportunities and diversification of the apprenticeship programme.

PRIORITIES

Stakeholders were given three votes each to allocate to their choice of priorities below by way of a written feedback form completed at the end of the session. The list of priorities was those that had been previously suggested by stakeholders, although there was space to write down new suggested priorities at the bottom. The graph below details the priorities for this topic ranked in order. It should be noted that one stakeholder completed the feedback form for this session, awarding one of their three votes to three different priorities.



PROPOSED COMMITMENTS

Stakeholders were then asked to start identifying commitments against these priorities. These have been set out under the priority headings below, which are in the order that stakeholders ranked the priorities when individually ranking via written feedback forms. The afternoon sessions were more informal and were not led by facilitators. Owing to the unconstructed nature of these discussions, in some instances priorities included on the written feedback forms had no specific commitments attached to them and are therefore not included below.

Priority 1: A happy, healthy and motivated workforce where WPD is the employer of choice — Proposed Commitments

 a) Create a modern office dynamic that encourages flexible

working

- b) Foster a culture of respect between the different skill sets within the business
- c) Encourage different ways of working within the business
- d) Foster a culture of understanding between the older and younger generations within the business

"You need to have respect between different skill sets. Traditionally you went up the ladder because you could do your manager's job. Now things are different. Different people have different skills, so there needs to be respect between managers and the managed."

"Could you do personality profiling? People work in completely different ways. Some people think internally, while others think out loud and bounce ideas off people. There needs to be more thought about how people work differently."

"In our local NHS, there has been reverse mentoring to help increase the cultural understanding within the organisation and create a sense of empathy among the entire body of staff."

"In Reading, other big businesses such as Microsoft have cracked that and that's why they have attracted so many young workers." "The package that you offer needs to be attractive to workers. This could include things such as being able to work four-day weeks at full pay for a period after maternity leave and the ability to buy back holiday. It shows that you care about your employees, and that would really attract young people."

"Young people want flexibility to make a job attractive to them and they want to be able to work from home. We need to promote those ideas better. We need to embrace the wider stuff better."

People are likely to leave if they are not treated flexibly by their managers. There needs to be more respect."

"As we have an ageing workforce, their viewpoint is shaped by how they have experienced their world of work, meaning that there will be a clash with the younger workers coming through."

Priority 2: Attracting new talent — Proposed Commitments

- a) Open opportunities for those who didn't go to university, for example enabling them to study alongside their work
- b) Identify relevant transferable skills among staff made redundant by other company closures and offer them employment
- c) Consider how your brand is perceived to ensure it appeals to young people

"We need to open up opportunities to people who do not go to university at 18. We could allow them to drop their hours to enable them to start studying in their 30s."

"Where I live, a large company closed down and the whole workforce was made redundant. We created a partnership through the council and were able to locate the skills that we needed and offered many of these redundant workers jobs. This could be a good model for the future."

"Transferrable skills from redundant workers are important. When people fall out of the workforce, it's harder for them to get back in and employers will find it harder to train them up again when they do return to employment."

"The reputation of car companies make them attractive to young people, so you need to bear in mind how your brand is perceived."

Priority 3: Improving the diversity of our workforce — Proposed Commitments

- a) Aim to achieve an accreditation for a national diversity and inclusion standard
- b) Consider whether educational qualification requirements are creating a barrier to having a more diverse workforce
- "I think that accreditation to a national diversity and inclusion standard is very important, as it gets you on the front foot and gives you an external overview. We can't keep thinking about diversity in the context of the past."

"We do think about our qualification requirements and think about whether educational attainment requirements are creating a barrier. We feel like we could find certain areas where we could push up the levels of skills of certain candidates ourselves."

d) Develop e) Ensure that f) Consider a) Create a b) Consider c) Use skills map for the skills your internal people's managers new recruits roles so create a requirements approach to comms to

Priority 4: Retention and upskilling of a specialised, highly skilled workforce — Proposed Commitments

- to help them develop new abilities and ensure staff have the right skills for the roles
- promoting staff, ensuring that those that are promoted have managerial skills
- promote the range of roles within the business to break down silos
- they don't constantly move about within the business
- culture of praise within the business
- being created by the rapidly changing landscape, such as technology and IT

- "I think that you need to have a potential skills map for new recruits coming into your company. That would mean that you could promote other skills within the business and enhance the company through this wider range of skills."
- "When looking for managers, you need to think about your model for promotions. Just because you have great hands-on engineering skills, that doesn't mean that you will be a great manager. You have to bear in mind soft behavioural skills."
- "Every industry faces some kind of challenge with employing people. If we widen access, we have to go back to thinking about core skills or how we get those core skills. We need to map things out properly to ensure that we get people that are not overly qualified or have the right skills for the roles."
- "We have become too obsessed with qualifications and need to think about upskilling trainees. The nursing sector has learned to do this, as so many graduate nurses were leaving the profession. This same spirit can be mapped onto the power distribution industry."

- "You can do internal publicity about what other jobs in the organisation involve to create mutual understanding. We need to stop operating in silos. Young people often start out on a career path before they know what their ideal career path is."
- "You don't want people moving jobs all the time. People have aspirations to move up within your flat structure and it's not always possible. You just need to make sure that you can add things onto their role."
- "You can give employees exposure to help them learn new skills and can reward them for the skills and responsibilities that they have."
- "Do you think that you're targeting the right general set of skills? We're now looking at more technological and IT people, and we want more managers. It's a different skill set to the people that joined the company a while ago. There are pluses and negatives to that."
- "The concept of managers as enablers is really important. There needs to be more of a culture of patting people on the back for a job well done. You need to find little areas that you can praise and reinforce those strengths."

Priority 5: Increasing the STEM pipeline — Proposed Commitments

- a) Consider creating a sponsorship programme to support new recruits through their academic training
- b) Broaden the apprenticeship programme to include non-engineering roles
- c) Work with schools to generate interest in the industry from a young age

"Could you think about sponsoring people through their academic training?"

"Do you take apprenticeships for non-engineering areas? That would broaden the range of skills in your company."

"Work can be done with schools to make electricity seem a more exciting proposition to school children. This could plant the seeds from a young age."



16 | <u>DIGITALISATION</u>, <u>DATA AND DSO</u> (<u>AFTERNOON SESSION</u>)

This session followed a different format from the other sessions. There was a short presentation summarising WPD's digitalisation strategy followed by some open questions asking stakeholders for feedback on what they'd heard.

Stakeholders felt that WPD were industry-leading thanks to their open data policy and the fact that they were actively sharing data rather than just talking about it. The point was made that there is value in more ambiguous forms of data, such as trends. Stakeholders made comparisons with other sectors, including the medical industry which had seemingly struggled with the flood of information it had received as a result of sharing data. One stakeholder also suggested engaging with the financial sector to learn best practice on data handling.

There was a discussion about the challenges WPD faces in sharing data. One challenge identified was the need to aggregate the data to ensure individual customers cannot be identified. It was felt WPD could categorise its customers in certain ways to then be able to build demand maps. Other challenges raised included the need for commercial confidentiality, as well as having to manage and sort such vast amounts of data. Moreover, the question was asked as to whether WPD fully understood what stakeholders want from WPD's data.

Stakeholders wondered whether data was available from certain equipment, including transformers and household appliances. In particular, one stakeholder wondered whether, in the spirit of whole system collaboration, WPD could access gas industry data to help it with its own modelling.

The conversation then turned to existing data sharing. Stakeholders welcomed WPD's heat maps, although the request was made for maps below 11kV. One stakeholder noted that the EV charge point capacity map does not overlay with other capacity maps, which would be a helpful feature. Northern Powergrid's EV map was highlighted as an example of best practice in that respect. Other requests included the desire to understand when surrounding areas would be included as Constraint Managed Zones and to receive more information on demand availability.

"A similar thing is certainly happening in the world of medical data. If you make your problems public, you all of sudden get a flood of information coming back."

"It's not just solid data you need. There's value in more ambiguous forms like trends."

"WPD are ahead with their open data policy. I've worked with SSEN and they were jealous of WPDs lead in this area."

"Other DNOs are only talking about data sharing. WPD are the only one who's taking action. There a big difference between other DNOs simply talking about ideas and you guys who are actually publishing maps."

"The problem you face is that your data can't identify a certain customer in any way. It's always going to have to be aggregated in some form."

"The issue for WPD is commercial confidentially as opposed to GDPR."

"Do you have any information on the types of end customers. Categorise them in broader ways. That way you can start to build demand maps."

"The challenge isn't collecting but managing and sorting all that data."

"Do you have a rough idea of what different stakeholder groups might want out of your data?"

"You should be communicating with people that work in the stock market in order identity new ways to handle all this information."

"What about taking direct information from the transformers?"

"Is there some way of communicating directly with a household appliance? Even if it's on a very small frequency response it could be useful."

"In the spirit of whole systems modelling, what about data from the gas industry?"

"In terms of data there's no visibility below the 11kV level. It would be lovely to have a full capacity 11kV data map on your website."

"I've used the electric vehicle capacity map but it's not overlapping with other data maps."

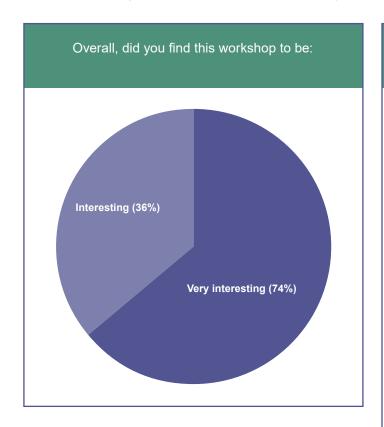
"The Northern Powergrid tool is fantastic. On it you can see a prediction of how much a charger installation might cost for when you plan to develop it."

"Your flexibility pack currently shows your Constraint Managed Zones, but there's no visibility as to when surrounding areas are going to be included."

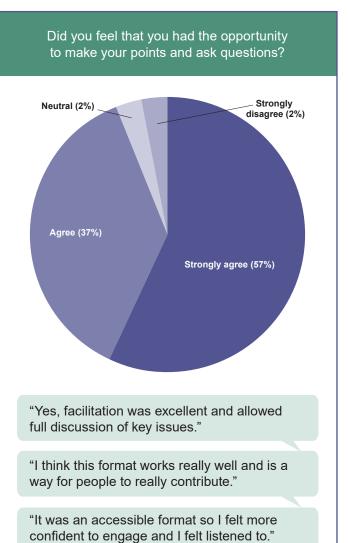
"How do I find out what the demand availability is in my area? This information should be easier to get."

17 | WORKSHOP FEEDBACK

After the workshop, stakeholders were asked to complete a short feedback form. The feedback was as follows:





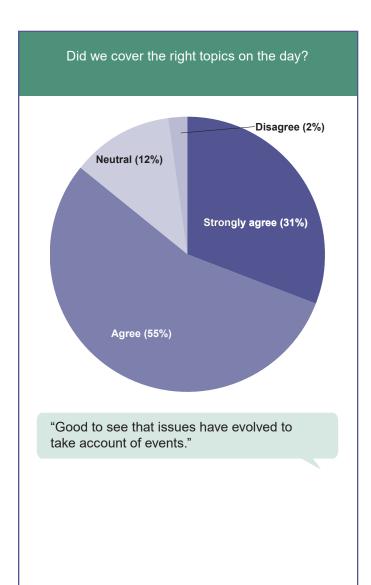


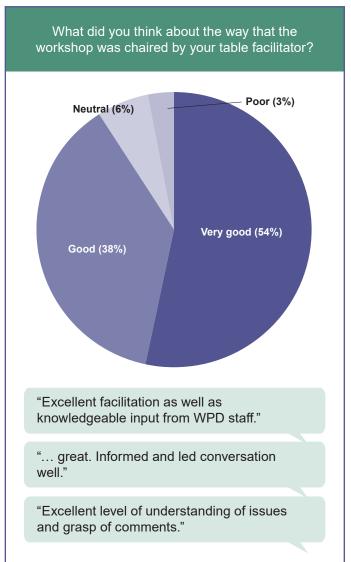
"Particularly appreciated those facilitators who checked that each delegate had had a

"An interesting and thought-provoking

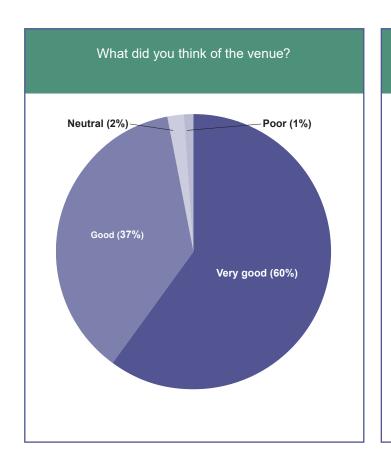
chance to have their say."

morning."









Any other comments?

"Excellent worthwhile event that should be a model for other organisations. Process has evolved and kept pace with changes in political and social environment."

"Very useful. Lots of information and chances to contribute and network."

"Overall, having seen how other regulated companies go about their price review periods, this is by far the most collaborative, innovative and encompassing engagement and business planning process."

"Well managed event, good interaction, sets the DNO [a] standard to aim for."



