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Environmental Strategy and Climate Resilience Strategy Workshop – Feedback Report

26 February 2021





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Introduction

On 26 February 2021, Western Power Distribution (WPD) hosted a workshop to seek feedback from stakeholders on its Environmental Strategy, Environmental Action Plan and Climate Resilience Strategy, along with its roadmap to ED2.

Because of Covid-19 restrictions, the workshop was hosted online. It consisted of short presentations given by WPD representatives, each followed by round-table discussions. Stakeholders were also asked to indicate their views on a range of proposals for the Business Plan using Slido, an electronic voting system, which allowed WPD to obtain quantitative as well as qualitative feedback.

The workshop was split into three main sessions. These are shown below:

- Workshop One: Our Environmental Strategy
- Workshop Two: Our Environmental Action Plan
- Workshop Three: Our Climate Resilience Strategy

WPD had recently published the first draft of its Business Plan for 2023–2028, which contains 67 core commitments. As part of its Business Plan requirements, Ofgem has requested all DNOs to develop a set of individual strategies and action plans for key topics – known as 'delivery strategies' – to ensure that they are delivering on stakeholders' expectations and to provide evidence that they will meet the baseline requirements set by the regulator. This workshop focused on two of these delivery strategies: Environmental Strategy and Climate Resilience Strategy.

WPD instructed EQ Communications, a specialist stakeholder engagement consultancy, to independently facilitate the workshops and to 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 each stakeholder represents.

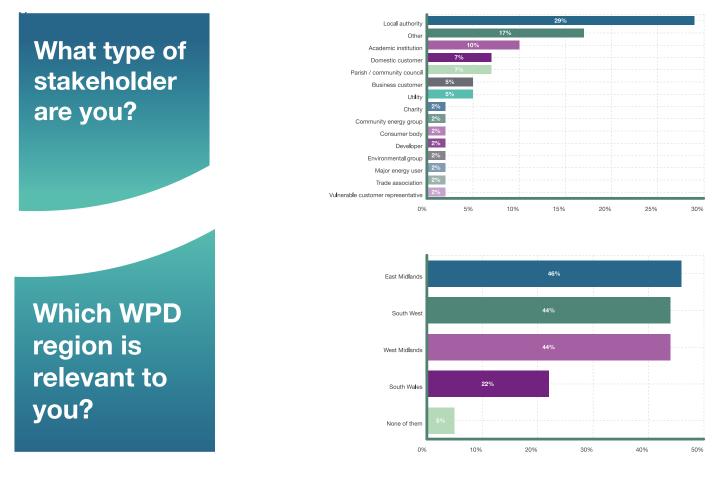
The full presentation can be found here.



Executive Summary

Participants ____

- 52 stakeholders participated in the workshop, representing 43 organisations.
- 29% of participants represented local authorities and 17% described themselves as energy consultants. 10% of stakeholders represented academic institutions, with participants also including business customers, utilities, a charity, a consumer body, a developer, an environmental group, a major energy user, a trade association and a vulnerable customer representative.
- 46% of delegates stated the East Midlands region was most relevant to them, followed by 44% who felt the South West was most relevant to them and another 44% who felt that the East Midlands was the most relevant. 22% of participants felt South Wales was most relevant to them.
- 90% of attendees who filled out a feedback form told us that they found the workshop to be 'very interesting', with 10% opting for 'interesting'



Workshop One _____ Our Environmental Strategy

The event began with an introduction from Richard Allcock, Stakeholder Engagement Manager, who gave an overview of WPD's stakeholder engagement programme and the business planning process for RIIO-ED2. Jill Russell, Environment Manager, then presented the session on WPD's Environmental Strategy.

- There was broad consensus that the scope and ambition of WPD's Environmental Strategy was impressive, but stakeholders wanted more detail on its implementation, including targets and timescales.
- Some stakeholders felt that the strategy was too internally focused and that WPD should be doing more to help customers through the low-carbon transition.
- Various missing focus areas were suggested, including collaboration with external organisations, a review of WPD's asset specifications and a plan for balancing the company's Environmental Responsibility goals with the need to address fuel poverty.
- Aligning with the United Nations Sustainable Development Goals (SDGs) was widely seen as a good idea, with 82% of attendees agreeing or strongly agreeing that adopting some of the SDGs would add value to WPD's strategy.
- Stakeholders' approval of the general direction of WPD's strategy was reflected in the electronic voting, when no attendees disagreed with the focus areas identified by WPD for Net Zero and Environmental Responsibility.

Workshop Two _____ Our Environmental Action Plan

Andy Martyr-Icke, Environment Advisor, presented the second workshop, which looked at WPD's Environmental Action Plan.

- Stakeholders were conflicted about whether a more ambitious replacement programme for fluid-filled cables would be worth the cost. However, the consensus seemed to be that it was better to monitor and manage existing fluid-filled cables and focus resources on more cost-effective initiatives in other areas of the Business Plan.
- Stakeholders suggested various areas where WPD could be more ambitious, including EVs (with regard to both WPD's own fleet and vehicle-to-grid technology) and reducing the amount of waste sent to landfill.
- There was strong support for the idea of rewarding contractors for environmental good practice, although some stakeholders highlighted issues that could complicate this approach. This was reflected in the electronic voting, with 70% of stakeholders either agreeing or strongly agreeing that WPD should weight the carbon reduction performance of contractors at least as highly as cost and safety.
- There was consensus that by offsetting carbon emissions to reduce its carbon footprint, WPD would be kicking the can down the road rather than truly addressing the issue. Some, however, saw offsetting as a vital tool in effecting the Net Zero transition in the short and medium term. These diverging opinions were evident in the electronic voting results, with stakeholders awarding an average score of 2.61 out of 5 when asked whether they agreed with the statement "WPD should use offsetting to reduce its carbon emissions in ED2".

Workshop Three _____ Our Climate Resilience Strategy

Carl Ketley-Lowe, Engineering Policy Manager, presented the third workshop, looking at WPD's Climate Resilience Strategy.

- Delegates broadly agreed with previous feedback, but added more nuance, for example, on the benefits of planting various types of vegetation.
- WPD's five-point plan was seen as comprehensive. A few suggestions for additions were made, such as implementing an education programme in conjunction with schools and co-ordinating actions with bodies such as drainage boards and government departments and agencies.
- Stakeholders agreed that extreme weather resilience should be a priority for WPD. Some suggestions were made as to how the company could refine its predictions for the effects of climate change, including by accounting for human behaviour and the various microclimates around the UK.
- Stakeholders suggested that WPD should partner with utilities and critical infrastructure networks, as well as the Environment Agency, the Met Office and the Energy Networks Association, to find efficient ways to mitigate risks related to climate change.



Workshop One Our Environmental Strategy

Summary.

Following the introductory presentation, Jill Russell, Environment Manager, introduced the first workshop. She explained how stakeholder feedback feeds into WPD's Environmental Strategy and noted that the strategy aims to protect the environment, provide an overarching pathway to becoming a net zero organisation, and limit the company's impact on global climate change. She then introduced the 13 focus areas for the strategy, which sit under two headings: Net Zero and Environmental Responsibility. Jill then explained that the strategy is aligned with three United Nations SDGs, namely sustainable cities and communities, climate action, and responsible consumption and production.

REASONS FOR ATTENDING

Attendees brought their experience from various backgrounds and areas of interest to the discussions. Energy consultants, some of whom were already working with WPD, were keen to find out how they could work together through RIIO-ED2 and address the challenges of the transition to Net Zero. There was a large contingent of local authority representatives, whose interests included electricity supply for new housing developments, agricultural fuel, sustainable growth and retrofitting. Representatives from utilities wanted to explore how their own plans aligned with WPD's, while other stakeholders were there to represent the interests of businesses and customers of all kinds with a view to ensuring that they are not unfairly impacted by changes in the journey to Net Zero.

WPD'S ENVIRONMENTAL STRATEGY

The various focus areas covered in WPD's Environmental Strategy were generally well received, with stakeholders commenting that the scope was comprehensive and the ambition impressive. However, many felt that they needed to see more detail before they could make an informed judgement, while some felt that the strategy was too internally focused, calling on WPD to do more to support customers and developers through the low-carbon transition.

Stakeholders asked a number of questions, including what the targets and timescales are for each focus area; whether there would be any focus on the 'massive challenge' presented by retrofitting; how new technologies would affect the resilience of the network; whether WPD would be looking to reduce pension investments in fossil fuels; whether the 'Communities' focus area covers support for charging points; and whether Net Zero would be achieved entirely through reducing emissions or through offsetting and sequestration.

MISSING FOCUS AREAS: NET ZERO

Asked to vote on whether WPD has the right focus areas for Net Zero, 90% of stakeholders either agreed or strongly agreed that this was the case, with the remainder opting for 'neutral'. However, stakeholders suggested various elements that were missing from those focus areas. There should be greater focus on the types of technologies required to hit Net Zero, some suggested, including photovoltaic systems, wind turbines, insulation installed at the point of building and ultra-low emission vehicles. A business customer suggested that reviewing WPD's asset specifications would be a big step towards Net Zero, for example, by approving the use of low-carbon cement to manufacture pylons for WPD. There were calls for more science-based targets and for carbon accounting to feed through into innovation projects. Stakeholders from various backgrounds wanted collaboration to play a bigger role, urging the company to engage with local authorities, low-carbon technology providers and other DNOs to help people become more energy efficient. Electric vehicle (EV) batteries and battery storage were raised as additional areas that warranted greater attention. Stakeholders suggested noise also pollution and decarbonisation of heat as missing elements and asked the company how its EV charging strategy would be affected by the expected long-term trend towards working from home post-Covid.

MISSING FOCUS AREAS: ENVIRONMENTAL RESPONSIBILITY

Stakeholders broadly agreed that WPD had identified the right focus areas for Environmental Responsibility. In the electronic voting, they awarded WPD an average score of 4.0 out of 5 (1= strongly disagree, 5 = strongly agree), with 87% either agreeing or strongly agreeing that WPD's strategy was focusing on the right areas. Several missing focus areas were put forward, including balancing visual amenity with biodiversity when undergrounding cables, providing clarification on what customers need to tell WPD when they want an EV charger or heat

pump installed, and the need to balance Environmental Responsibility goals with fuel poverty. Stakeholders asked for more detail on how WPD plans to promote biodiversity and whether the Environmental Strategy would be rolled out to contractors.

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

There was widespread consensus that aligning with the SDGs was helpful in that it gave organisations of all types and sizes common benchmarks to work towards. In the electronic voting, 82% of stakeholders agreed or strongly agreed that adopting some of the SDGs would add value to WPD's Environmental Strategy, leading to an average score of 4.1 out of 5 (1= strongly disagree, 5 = strongly agree). Some stakeholders queried why WPD was focusing on just three of the SDGs, rather than embracing all of them. A business customer was disappointed not to see anything about working with small to medium-sized enterprises (SMEs) or employing people from local communities, saying that in their own organisation, this kind of activity was tied to the SDGs. There was some disagreement over whether 2043 was a reasonable target date by which to achieve a net zero business carbon footprint, with some participants arguing that WPD needs to move faster. WPD's role as an 'honest broker' in the electricity market was seen as highly important, making it well placed to advise community groups. It was also suggested that WPD was in a position to be an exemplar in terms of using innovation to promote biodiversity.

Stakeholder Feedback ____

Introductions

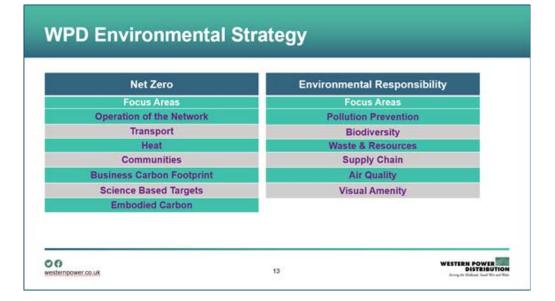
- "I work for a firm of chartered surveyors. We specialise in renewable energy. We look at large land with solar and wind developments. We are looking for grid connection issues and the roll-out of those projects." **Energy consultant**
- "I'm from a WPD contractor and I'm attending in order to get an idea of how we can work together through ED2." **Energy consultant**
- "I'm an electrical engineer. We provide building and consultancy services."
 Energy consultant
- "My connection with WPD is I sit on the Customer Panel, so I've got continuous contact with them." Energy consultant
- "WPD are our partners. We're interested in microgeneration." Energy consultant
- "I'm on the WPD Customer Panel." Energy consultant
- "I'm an ecologist and a consultant and I have been working with WPD for a long time now, advising them." Energy consultant
- "I'm here for an overview of how all the utilities are progressing with data." Energy aggregator
- "We were set up originally by the council to look at what we could do locally on climate [issues]." **Parish / community council**
- "I work for Lincolnshire and South Kesteven Council. My role is around sustainability. I'm interested in looking at climate change. We have an interim target for 2030 of 30% decarbonisation, and our net zero target is 2050." Local authority
- "I'm a councillor in Gloucestershire and I'm interested in how WPD can enhance the offer that goes into new housing or even to regenerate areas." Local authority
- "I'm a councillor and asked the company to sign up to the Local Electricity Bill, which they have done. I have lots of questions around the Environmental Strategy here today, but I'm pleased with what WPD is doing so far." Local authority
- "I work in sustainable energy for a city council. We are engaging with WPD, so that's my interest here today. We're interested in sustainable growth and retrofitting. My beef is getting three-phase supplies into domestic properties." Local authority



- "I'm a climate change and sustainability coordinator for a council." Local authority
- "I'm attached to the council cabinet, so I'm involved in environmental issues. I live in a rural area with a lot of agriculture, so I am interested in fuel, red diesel, etc." Local authority
- "I'm a chair of licensing and I'd like to hear about charge points and taxes in the future. When we updated our policy, we realised it was premature." Local authority
- "I'm a parish councillor in rural East Nottinghamshire and there are lots of solar panels in our surrounding area." **Parish / community council**
- "I'm chair of a local parish council. I'm here to develop policies to roll out to other parishes to help them combat climate change." **Parish / community council**
- "I work for a colleague company of WPD. I sit on some of the climate change adaptation groups. I'm here because I'm interested to hear WPD's view, and I will be writing the strategy." Utility
- "I work for the University of Warwick as a building services designer. We have dealt with Western Power around the infrastructure. I will be interested to get WPD's thoughts about the net zero carbon element." Academic institution
- "I'm now a software engineer, but I used to be an electrical engineer. I'm working on various community-related projects." Environmental group
- "I work for the equivalent DNO in the North West region. I'm here today to see if the plans of the various DNOs align." Utility
- "I am making a TV series about the energy transition, so I am very interested in this, but I am mainly here as an observer. I have a lot of general experience of the trials and tribulations of running a house on renewables." **Domestic customer**
- "I work for one of WPD's main maintenance contractors. I'm here to understand WPD's Environmental Strategy and how we can support it throughout ED2."
 Business customer
- "I work at Birmingham Airport. I'm the electrical engineering manager, and I am very interested in environmental issues. We are looking at being carbon neutral by 2033. We are trying to clean up our act and get involved in communities." **Business customer**
- "I come to this with a background of working with WPD for a number of years. I've sat on committees. I'm an ex-physics teacher." **Business customer**
- "I'm keen to make sure changes don't impact small businesses unfairly." Trade association



- "I chair the Customer Engagement Group. I'm here to listen and give input." Consumer body
- "I'm a technical director of a club of very large energy users. Many of these are WPD customers, from water companies in the South West and the Midlands, cement manufacturers, Network Rail and the Crown Commercial Services. I've also been involved in RIIO-ED2 through electricity and gas transmission and the northern networks." Consumer body



1. What do you think of our overarching strategy? Have we got the balance right?

- "It was a pretty good coverage of the topics that we should be considering. They did cover the sort of things I would expect as headlines. They are the headline topics that required analysis of some sort." **Energy consultant**
- "I am very impressed with your goals." Domestic customer
- "It is very comprehensive, but it is very top line so there's no detail." Energy consultant
- "It is good to see a focus on science-based targets, and embodied carbon, which is usually ignored. Around biodiversity, it was good to see it mentioned. Obviously with



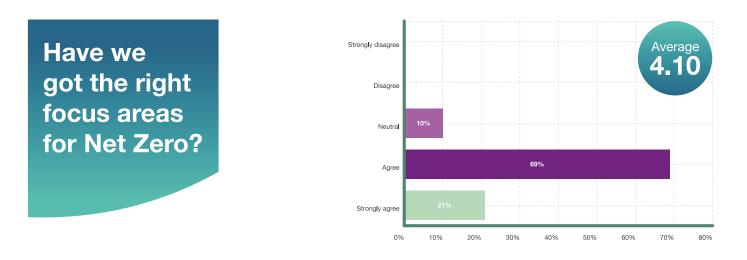
WPD operations, there can be conflict around that. In my conversations with residents, that is a big issue so I think we would like to see more of a focus around them." **Local authority**

- "Just looking at it, you've got to remember your role as an enabler. That needs to be on there. It concerns me that's not written on there." Energy consultant
- "The strategy is very internally focused. It's based on getting your own house in order. There should be a commitment to provide advice to customers, developers, whoever, to suggest that 'you could go down that BAU route or you could go down another route'." Local authority
- "I agree. I would take it one stage further. A community group, for example, had funding to build a solar farm and experienced problems with the connection. Responses from WPD were along the lines of 'you can't do that' rather than 'you can't really do that, but these are some things you could try or work on'. A more collaborative approach would help." Environmental group
- "I'd second that. One area that it's important to link into is the emerging hydrogen economy. You should have a commitment to play a role as part of the wider green economy rather than just within your own business." Local authority
- "I know Electricity North West's strategy is similar. Just to offer some balance here, we have this enabling thing embedded in different parts of the business, so WPD may have this too, even if it isn't reflected in these slides." Utility
- "I want to know whether WPD is setting out to reduce pension investments in fossil fuels as part of this strategy?" Local authority
- "It is now becoming more and more apparent that pension investment can be done more ethically, so this presents a great opportunity for WPD to act in an environmentally responsible manner." Local authority
- "Will there be any focus on retrofitting within the strategy? That will be a massive challenge. Will there be any support?" Local authority
- "While hitting Scope 1 and Scope 2 is great, why is Scope 3 not included?"
 Local authority
- "It covers all the areas as far as I can see. But it depends on what the targets are for each one. For instance, with transport, is the aim to be totally green within ED2 or sometime later? Those things are important to the background of this."
 Consumer body



- "What about the resilience of the network? When embracing new technologies, are your actions likely to affect the resilience of the network and how do you maintain this?" Local authority
- "The list is good, but the detail needs to be questioned. With regard to 'Communities', does this imply support for EV charging points? In certain areas this isn't feasible." Local authority
- "So, with Net Zero, will there be all the reductions and no offsetting or sequestration?" Local authority
- "The big challenge is domestic heating. Getting an electric car is easy. Getting a purely electric house is much more challenging." **Domestic customer**
- "We are considering no longer taking part in triads. We are interested in transitioning from red diesel too, but we are looking for other options such as solar and other renewables and battery generation. There are some big challenges but we're looking into it." Business customer
- "WPD should adopt a science-based target to calibrate the scale of their ambition. Embodied carbon emissions in WPD infrastructure can be a significant driver in addition to generating renewable electricity. Hungarian Water's recent presentation was good. WPD could learn from them." Academic institution
- "It's about the scale and pace of change. We are talking about the climate emergency; we've awoken to this issue. Don't underestimate appetite for speed of change. Wind turbines could be a massive change in the scale of renewable generations. We're looking at 2030 for carbon neutral. I can't emphasise enough that we are awakening to the issue." Local authority

2. Net Zero: Are any focus areas missing?



- "Nothing appears to be missing." Consumer body
- "So, given the issue of heat leakage, it's key to ensure you have insulation installed at the point of building. And on-roof generation can offset." **Community energy group**
- "Without knowing the detail, we can't say what's missing. The good one on heat opens up a range of discussions. I'm finding it difficult to know. I'd expect pollution prevention. SF6, oil discharges from cables, and so on." Business customer
- "There doesn't seem to be anything in terms of the types of technologies required to achieve Net Zero. More photovoltaic systems? Wind turbines?" Academic institution
- "It would be interesting to know WPD's roadmap to Net Zero and what it consists of. I'm not sure how you're going to get there." Academic institution
- "I think it creates an opportunity for WPD to set a benchmark and show how the decisions were made internally. So, people going on their own journey to sustainability can pick your brains. It's an opportunity to do your own in-house stuff but also set an example." Energy consultant
- "Where's your boundary? When you say, 'Net Zero', is that just internal business or helping the customers to become Net Zero?" **Energy consultant**
- "I think it is WPD's goal but the confusion I see in the documents is that customers' Net Zero and WPD's Net Zero are mixed up a bit. They could do with being separated and clarified as two separate things." Environmental group
- "Under transport, we should be focusing on ultra-low emission vehicles and hydrogen fuel cell vehicles, certainly for larger vehicles. Are you going to encourage



your staff to take up low emission vehicles through a salary sacrifice scheme?" **Parish / community council**

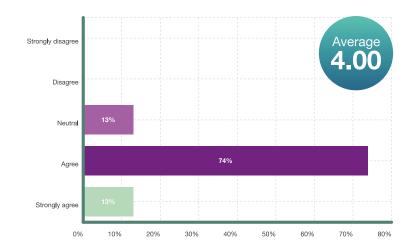
- "A salary sacrifice scheme is difficult to get installed. It deals with the emissions associated with the grey fleet, so that's people using their own cars or commuting to and from work. You're right that we should look at this area." Local authority
- "You could consider sound pollution. That's allied to diesel generators. Even landscaping, with using things like weed whackers. Our own landscape team is going fully electric." Local authority
- "The biggest thing WPD could do to help us hit Net Zero and the biggest thing we could do to help WPD is looking at its asset specifications. Every time we build a new pylon, we have to use a certain type of cement. To move towards Net Zero, it would be great to use a low-carbon cement instead. More leeway with specifications would be useful." Business customer
- "Looking at science-based targets, if WPD was to do its carbon-accounting calculations and work out it needs to remove X number of tonnes of CO2 per year to achieve Net Zero, do these calculations feed through to innovation so that projects can help it achieve that? These calculation figures, would they also show a price per tonne of CO2 removed?" Storage and renewables provider / installer
- "It would be great if the carbon-removal calculation was in the public domain so that we can work with that." **Storage and renewables provider / installer**
- "I would like to see more focus on innovation and procurement collaboration with LCT providers. WPD can't achieve this on its own."
 Storage and renewables provider / installer
- "Post-Covid, how many people will want to go back to their offices? How will this change your EV charging strategy?" Local authority
- "A couple of things are missing for me. Part of your Environmental Strategy should be about making your customers more efficient. You have a lot of experience of doing things in a different way. You should engage with local authorities as part of your Environmental Strategy. I'm delighted to see your science-based targets. The water sector will need support from you to reach their 2030 target. You need to go further than just offsetting." Consumer body
- "WPD are one part of the distribution network. Is a common approach planned between DNOs?" **Consumer body**



- "How closely are your plans related to other DNOs?" Local authority
- "At the airport we've moved to EV buses and EV cars rather than using 4x4s on site, so I am interested to know if that's a priority in your strategy." **Business customer**
- "It's good, but we're interested in disposal, for when batteries come to the end of their life, using them for battery storage onsite tied into our PV. So maybe you should look at asset life cycles and end of life." Business customer
- "The point about asset life cycles is critically important. Next week I am swapping the battery on my EV as it's 10 years old, and there's a new thriving and rapidly growing industry doing this, but the key thing is what to do with the old battery. We reckon it's got 17 kW/h of usable storage in it, so they are setting it up to a system that will hook up to the PV in my house. That technology is developing rapidly." Domestic customer
- "At the moment it's disproportionately cheap to convert an old car battery to storage. The new battery cost me £4,000 but you have to bear in mind that my car has cost me £6,000 at the most in maintenance to drive 83,000 miles over 10 years, so it's an absolute fraction of the upkeep costs of a conventional car." Domestic customer
- "Storage: short-term battery storage or longer-term storage of power. We could generate enough energy in the summer through solar and in the windy season through turbines; the problem is storage. Where does storage sit in your plan?" Energy consultant
- "I've not heard much about decarbonising heat here. And would the cost still be £96 per year?" Academic institution

3. Environmental Responsibility: Are any focus areas missing?

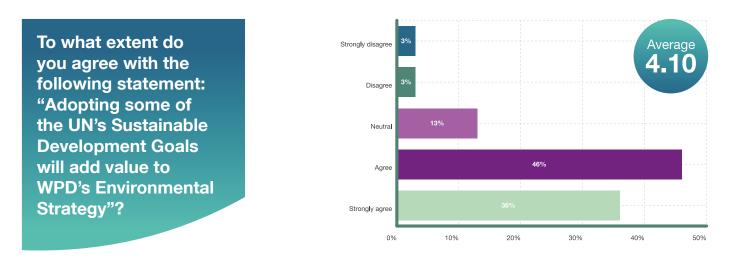
Have we got the right focus areas for Environmental Responsibility?





- "There is an awful lot that follows through visual amenity. Are we looking to prevent pollution or tidy up pollution? I think that falls into two categories: what WPD are required to do but also what extra they are going to do that is affordable and isn't going to sacrifice their quality of service. That's a tricky one." **Business customer**
- "Once you start digging holes in the ground you start affecting the biodiversity. So, you've got to balance that." **Business customer**
- "What sort of land holding does WPD have? If you don't have the space to create habitat / wildlife areas, etc., away from your assets, how do you go about this? You could get involved with the developers and do more environmental enhancements."
 Energy consultant
- "Wind energy, solar, EV charging, and knowing what capacity exists on the grid is vital. But, also, that leadership and facilitation for support." **Local authority**
- "As a consumer, I have to tell you when I need to install an EV charger and a heat pump. That hadn't come across to me, and so some clarification on whether, and when, they need to tell you this, on their system, is needed." **Business customer**
- "You do have some nasty chemicals that need to be managed. There's also sound emissions and electromagnetic emissions. But the broad shape of the vectors of the space is pretty good. We need to dive into the details of the intersections between these." Energy consultant
- "I like the idea of a biodiversity net gain and think that it's fantastic, but in its strictest form, it needs 30 years to be counted. WPD needs to look at biodiversity more broadly, with a greater community focus." **Business customer**
- "What I'm gathering is that the business carbon footprint is about your operations. It's also about influencing buy-in from suppliers but how does this balance with fuel poverty? We have to be balanced. Is there likely to be a significant increase in costs?" Local authority
- "You use contractors a lot so is your Environmental Strategy going to roll out to your contractors?" Parish / community council

4. Do the UN Sustainable Development Goals add value / are they a helpful way of framing our strategy?



- "Yes, absolutely. These are well-recognised and understood. They are a good basis to start from." **Consumer body**
- "Singing from the same hymn sheet works well." Local authority
- "I think it's very important that the UN has these goals, and we should support them. It's important that this is being done on an international basis. The UK should be involved, and you should support this." Local authority
- "I would say it's excellent. Because of the nature of this area, if you had something of a global view, WPD is in the fortunate position where they have an international measure to work towards. This means they will have justification towards their working."
 Business customer
- "Relevance to small businesses it does give focus. Everyone moving in the same direction at the same time on the same issues. We're looking at trying to introduce a simplified version. What we do in this country affects other countries and vice versa."
 Trade association
- "It's excellent you are doing three SDGs. Why are you not doing 17 though?" Local authority
- "I don't think that going for three SDGs is particularly ambitious. We're a principal contractor and we hit two ourselves. Surely WPD can go further here?"
 Business customer



- "I agree there should be one target, but I believe the UK government should set their own targets rather than be led by the UN." **Consumer body**
- "I think following the UN recommendations is a no-brainer. We have to embed this in our strategies." Local authority
- "No need to re-invent the wheel. The goal, and strategy, seems reasonable. But we can use the tools we already have." **Community energy group**
- "We've set our goals for the year, and we have overarching ones. I'm sure our targets would fall into yours, but only by coincidence rather than design." Utility
- "I don't know why WPD aren't trying to align with all SDGs, rather than just the environmental ones." **Business customer**
- "The thing about a network operator is it's in a really good position to enable networks. It's almost like you've got an implicit role to demonstrate to your stakeholders how to do a better job." Energy consultant
- "I was doing some work with Manchester City Council. The DNO was seen as an honest broker for community groups to come to for advice. They were used to dealing with electricity suppliers, who had quite a bad reputation." Utility
- "The honest broker thing is incredibly important. You may need to work closely with other sectors. How to provide this info in a way that's not outright selling of goods and services is tricky but important." **Energy consultant**
- "It's a bit concerning that UK productivity isn't mentioned. People's domestic quality of life shouldn't suffer. I'd like to see that as some sort of aim on there." **Energy consultant**
- "In terms of sustainable business, that's probably covered by SDG 11. If you can't make something profitable, it isn't going to happen." **Environmental group**
- "There's nothing in the strategy about what WPD plans to do with SMEs and employing people from the local community or developing personnel within the business from areas in its patches. That may be included elsewhere, but we tie this kind of activity to SDGs within our organisation, so the absence of this kind of thing is disappointing." Business customer
- "2043 is a reasonable target date to hit Net Zero." Parish / community council
- "2043 seems late to me, but I realise that hitting Net Zero isn't necessarily something that we can overcome overnight. If we could tax wealthier businesses, we could bring it forward, which is something that I would like to see." Local authority



- "We have the same at the university. It's easier for us, with researchers all over the world. This is very applicable to me." Academic institution
- "Sustainability starts with big business to drive change." Environmental group
- "Someone like WPD could really be an exemplar. For example, in terms of biodiversity, what happens below your power lines? We no longer have to chop down trees because we've introduced rabbits that eat on the tree shoots." **Trade association**



Workshop Two Our Environmental Action Plan

Summary.

The second workshop was presented by Andy Martyr-Icke, Environment Team Advisor, and looked at WPD's Environmental Action Plan. Andy gave an overview of WPD's environmental journey from pre-2012 compliance to post-2038 plans for RIIO-ED3 and Net Zero. He contrasted the traditional linear model of electricity supply with the future model, in which energy from solar and wind turbine generation, along with battery storage and EVs, will feed into the grid at different points. He then outlined the focus areas of WPD's Environmental Action Plan and the initiatives WPD was proposing in order to meet its goals. The company aims to use wide-ranging stakeholder engagement to create a vision for a sustainable business with minimal environmental impacts in all areas of its operation and to identify value-formoney environmental impacts in all areas of WPD's activity. He added that WPD's Annual Environmental Report provided evidence of the company's progress against its goals. In addition to achieving Net Zero, WPD is proposing six environmental commitments, from further reducing leaks and spills to targeting the removal of 40 km of overhead lines from Areas of Outstanding Natural Beauty.

FLUID-FILLED CABLE REPLACEMENT

Stakeholders were asked whether WPD should be more ambitious on replacing fluidfilled cables or whether resources would be better spent on other areas of the Action Plan. This was a dilemma many stakeholders struggled to resolve, with several arguing that the question was difficult to judge without more information. Some stakeholders felt they would need to know more about the whole carbon life cycle of the equipment to make an informed judgement. Others wondered what impact the incoming resin technology would have on the problem. This quandary was reflected in the electronic voting, with just over half of voters (56%) saying that WPD's level of ambition was about right, and the remaining vote fairly evenly split between those who thought WPD should do more and those who thought the company should do less. Many stakeholders said that they needed more information to make a judgement - including on what alternatives to SF6 were available, how quickly they could be rolled out, and what indirect environmental costs or benefits these would generate. The general consensus seemed to be that it was better to monitor and manage existing fluidfilled cables so as to minimise the impact of any leaks, while focusing resources on more cost-effective initiatives in other areas of the Action Plan.

SF6 REPLACEMENT

Stakeholders faced a similar dilemma with the issue of SF6 gas, with many recognising it as a harmful substance that should be removed from the network yet expressing concern about the cost of replacement and whether resources would be wasted. Cautionary notes were sounded by some stakeholders, who argued that if WPD were equivocal about the potential harm of SF6, it would send out the wrong message. Several stakeholders were in favour of a more nuanced and targeted replacement plan, replacing older cables that



were more likely to leak and those that were located where a leak would cause the most environmental damage.

ENVIRONMENTAL REPONSIBILITY – LEVEL OF AMBITION

When asked to vote on what WPD should prioritise in ED2, stakeholders rated transport as the top priority, with a score of 3.2 out of 5 for importance, and fugitive emissions such as SF6 as the lowest priority, with a score of 1.77 out of 5. Sandwiched between them were fuel combustion (2.57 out of 5) and building energy use (2.46 out of 5). Some stakeholders agreed with the idea that WPD should be more ambitious, particularly with regard to the transition of its fleet to EVs; vehicle-to-grid technology; looking at technological solutions to reduce waste sent to landfill; and increasing the amount of waste re-used, rather than simply kept out of landfill. Referring to the idea of WPD setting an example, one stakeholder suggested that a sign on the side of WPD vans reading 'I'm electric' would be a simple way to do this. One stakeholder argued that given the difficulties of carrying out accurate cost-benefit analyses for various initiatives, WPD needed a consistent framework against which to compare the environmental impact of all options.

BUSINESS CARBON FOOTPRINT

The idea of rewarding contractors for good practice was generally well received. The majority of stakeholders (70%) agreed or strongly agreed that WPD should weight reduction performance the carbon of contractors at least as highly as cost and safety. One stakeholder suggested that the simplest approach to reducing Scope 3 emissions would be to incentivise suppliers and contractors, with funding mechanisms in place to offset any losses. Stakeholders pointed out various obstacles to this approach, including contracts that were agreed before the declaration of a climate emergency and the lack of reporting capacity among smaller suppliers, which could result in WPD only working with large suppliers owing to more stringent rules. Responsible supply chains would be a massive issue in the future, one stakeholder said, and another suggested that a scheme involving working with schools would be money well spent in terms of pursuing WPD's long-term environmental goals. A local authority representative raised the need to balance environmental measures with their impact on communities, giving the example of the phasing out of red diesel and the knock-on effect of that cost to households in rural areas.

OFFSETTING

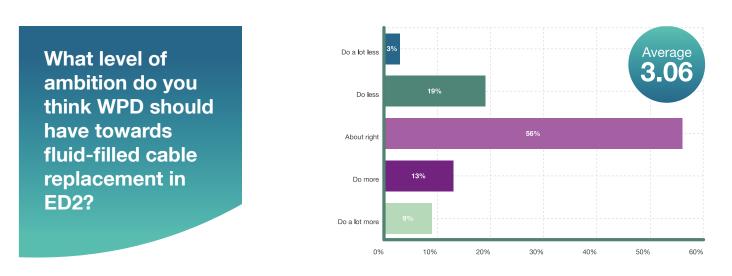
The question of whether WPD should use offsetting to reduce its carbon footprint provoked much debate. The consensus was that offsetting amounted to kicking the can down the road rather than a solution to carbon emissions and should only be used as a last resort, with many stakeholders expressing this view. A storage and renewables provider / installer, however, argued that with SF6 use predicted to grow and the gas taking more than 1,000 years to decompose in the atmosphere, offsetting needs to be a fairly prominent solution in the medium term, rather than simply a last resort. This division of opinion was reflected in the electronic voting, with just 17% of stakeholders agreeing or strongly agreeing that WPD should be using offsetting, 42% disagreeing or strongly disagreeing and 42% remaining neutral on the issue. Some stakeholders saw a middle way, with offsetting providing the breathing space to help new technologies get off the around.

STAKEHOLDER INVOLVEMENT

Stakeholders suggested a range of ways in which they would like to get involved in WPD's environmental journey. The suggestions related to a range of areas, from managing trees to offsetting, speaking to local communities to get a layman's view of relevant issues and sharing best practice on achieving carbon neutrality.

Stakeholder Feedback _ Environmental Responsibility

Pollution Prevention



- "That's one of the best presentations I've heard. I'm in a difficult position because I've been in a lot of these discussions in the past but I'm with the Business Plan getting the best benefit for the bucks." **Business customer**
- "It's difficult to comment when you don't know how big the problem is. I've no idea what damage fluid-cables cause. If you have too short a time span, you might replace the cables with something else. If you have a longer time span, you have the resin option coming along. Targets shouldn't be set too close in." **Trade association**
- "55% reduction in cable leakage sounds good, but why was it there in the first place and what percentage of the overall network is that? The business case has to be a priority; you've still got to deliver an affordable, manageable, successful business. In terms of overhauling networks, I'm sure there's some priority areas where that level of expenditure will have more of an environmental impact than others."
 Energy consultant
- "It needs to be monitored in terms of what else is out there, but you can't keep waiting for the next best technology, because otherwise you'd never do anything. Rather than blow the budget on replacing everything, keep an eye on new stuff and manage it as best as you can within the overall network." Energy consultant
- "This really needs to be a more informed question. You don't know the embedded



carbon in the existing equipment. Obviously, it emits carbon to make the equipment in the first place, so are you considering the whole carbon life cycle?" **Energy consultant**

- "I agree. You are where you are and digging stuff up might just cause more issues. I have a diesel car and it's got plenty of life left in it so what's the environmental impact of getting rid of this and substituting it for an EV? This question requires more information in terms of the specific damage you get from interfering with what you've already got."
 Local authority
- "In theory, filling cables with resin is good, but it would be pointless if it resulted in the cables going to landfill in future. As a contractor, it does make sense, though." Business customer
- "With the fluid-filled cables, there needs to be a more nuanced look at the environmental effect of leakages, as fluid leaking from older cables will cause far more damage than leaks from newer cables. Both are problems but there should be prioritisation based on the environmental impact." Energy consultant
- "There are easier wins if they focus on other areas. We need the background and information to inform some opinions. As new technology is on the horizon, e.g., resins, maybe focus on other areas whilst minimising potential fluid leaks in the near future."
 Environmental group

1. Should we be more ambitious on fluid filled cable replacement in ED2, or should we prioritise other areas of the Action Plan?

- "This is the first time I've been explained the relative cost of removing SF6. Are WPD going to produce a breakdown for each of the benefits to the environment, including costs, so we can compare what looks like apples and pears and see what the best options are? We didn't see much discussion on timescales, also." Business customer
- "SF6 is a real concern with leaks into SSSIs, for example. It'd be taking a hit in these high-risk areas, rather than replacing the [whole] network." Utility
- "I'm sure instinctively we don't want a gas like SF6 to escape, but we are where we are. We ought to not necessarily withdraw from the reduction, and perhaps increase, but consider the costs. If you put money into EVs, for example, there are savings that multiply, because of their benefits, including brake dust. Some are financial,



some intangible. But it's hard to balance all these benefits. It's apples and pears." **Community energy group**

- "I think I now understand a little more about the alternatives, and indeed the costs, of SF6 replacement. While I'm sympathetic, though, I still have that abhorrence to SF6 emission, so I could do with more information to take care of my fear."
 Business customer
- "I wonder if it sends the wrong message, if WPD are equivocal about the damage that SF6 does. It has to remain right up there, as it's such a known pollutant." Community energy group
- "80% of SF6 is used by the electrical distribution industry. If WPD don't do anything about it, no-one else will." **Energy consultant**
- "The alternatives should be looked at, but I don't think it's wise to investigate any wholesale replacement without there being a ready-to market replacement." Local authority
- "Can switchgear be made with finer tolerances, so leaks are less likely? Are alternatives economically viable enough, and are they being used on projects yet?" Utility
- "SF6 needs to be resolved but I don't think there's any replacement out there. Same thing with cables, really I don't know if there's a long-term plan." Academic institution
- "Although SF6 is only a small amount of leakage, it's still 21% of the overall footprint, which is massive. The replacement gas should be included in the strategy as a key performance indicator." Local authority
- "Should you be targeting the lower hanging fruit instead? We have SF6 switch breakers on our site that we are gradually replacing, and I assume you are doing the same." Business customer
- "There was a slide about vehicles, which is important, looking at the fleet you have and setting targets for that, because that made up a larger chunk of the figure."
 Business customer
- "Other big businesses like Amazon are doing a big promotion about the EV vans they are taking on, so are you doing that too?" **Business customer**
- "I trust WPD analysis and am happy to focus on other areas first if they save more carbon quicker to protect the environment." Local authority



Stakeholders wanted us to be more ambitious, do you agree with that feedback?

- "WPD should look to go further long-term by looking into new technological solutions which would reduce waste sent to landfill."
 Storage and renewables provider / installer
- "Yes, in short, but I need more information, e.g., figures against those areas of what their contribution is to the carbon footprint of WPD. On the face of it, it looks fine." Energy consultant

Is >£1M better spent on replacing 1KM of fluid filled cables or is it better to focus on other areas of the Action Plan?

- "I think you should be concentrating more on transport because that's the hardest to decarbonise and big companies like yours have a lot of scope for that. Also, the example you can set is important. It's much more obvious when you change your vehicles than when you change your cables, so that will have a bigger impact on people." Local authority
- "Could you use a different fluid that's more environmentally friendly?" Energy consultant

2. Do you have any specific comments you would like to raise in relation to any other focus area under 'Environmental Responsibility'?

NB. These are:



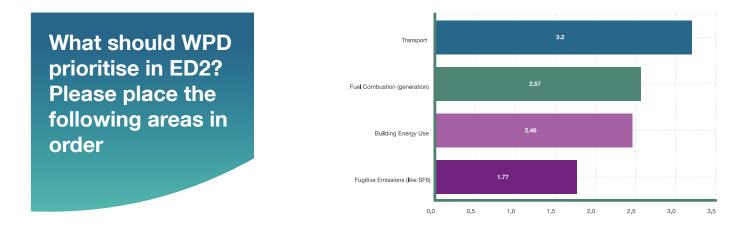


- "Very few EVs on the market support vehicle-to-grid technology at the moment. The Office of Low Emission Vehicles that sets out requirements for EV development needs to be working hand in glove with you if vehicle to grid is going to happen."
 Parish / community council
- "Biodiversity is affected by leaking cables, so you need to be looking at which cables to replace based on where they are and how much SF6 they are leaking. Also, it's about the full lifetime carbon of cables. What's the carbon intensity of self-healing cable fluid compared to cable replacement? All of these things need to be compared as opposed to having a mere cost comparison." Environmental group
- "There are occasions where it's best left alone. However, if it's actively causing harm, it should be dealt with. You shouldn't be looking at an economic argument there." Local authority
- "Talking about carbon offsetting, there's a degree that within your strategy, you could do your carbon offsetting internally. You can have a self-referencing strategy."
 Local authority
- "I want to know whether zero waste to landfill includes incineration. If so, that would be a massive greenwash." Local authority
- "I agree that zero waste to landfill needs to focus far more on ensuring that materials are being actively reused, rather than efforts on stopping them being sent to landfill. This approach can't be just about landfill targets." Business customer
- "One or two targets were a bit weak in terms of vehicle replacement. I think you were saying by 2028 for this rather than 2025 like a lot of others." **Consumer body**
- "Leakage of oil-filled cables is an issue for our member water companies. They will have an interest in reducing that source of pollution." **Consumer body**
- "Should we be embracing hydrogen cars rather than EVs?" Local authority
- "I'm concerned about what the evidence is behind achieving a lot of these targets. For example, with an EV you're a lot more environmentally sound in Germany than in Britain or Poland. What is the evidence behind all these targets?" Local authority
- "An earlier comment said that WPD has a role to be seen doing the right thing and demonstrating leadership. You could do this with a sticker on the side of a van saying, 'I'm electric'." Consumer body



Net Zero

Operation of the Network



3. Should we be more ambitious on reducing SF6 leaks in ED2, or should we prioritise other areas of the Action Plan?

- "To some extent it's the same argument made in the previous discussion. It's a risk analysis in terms of 'yes, we need to get rid of this but also this', so which do you prioritise?" Local authority
- "It should be risk managed and replaced on failure rather than going in and replacing it for no reason." **Energy consultant**
- "This should be updated in your reports. Is risk increasing or decreasing?"
 Local authority
- "On SF6 I liked how other opportunities were linked with greenhouse gases. I think this is a balanced approach. Cost abatements would be an additional level of detail beyond the qualitative level." Energy consultant
- "SF6 is clearly an issue with manufacturers. Their emissions are far worse than WPD's. This is an industry problem and needs addressing at that level. It shouldn't be down to WPD to fund it on their own." Consumer body
- "WPD should be looking to collaborate closely with other DNOs." Local authority
- "There is the strategic investment fund for businesses like WPD and other DNOs to come together and look at innovative solutions together. So, with SF6, they can work



together to find better alternatives." Consumer body

- "It makes more sense to tackle bigger issues, the low hanging fruit, but how do you quantify it? How did you arrive at the smaller percentage of SF6?" **Business customer**
- "If you know something is coming in 5 years, to make it cheaper you should wait. 5 years isn't a long time. You don't want to waste money." **Energy consultant**
- "You need to think about the potential damage if something goes wrong. It's like nuclear power plants; they are very good, but when they go wrong the damage is catastrophic." Local authority

Stakeholders wanted us to be more ambitious, do you agree with that feedback?

- "We all agree you should be ambitious. The more you can push and bring forward the carbon neutral date, the better. The biggest challenge is there's so much to be done; it's what you prioritise. If the budgets will take it, I think you should be more and more ambitious." Local authority
- "One thing not explicitly mentioned is the security of the data. The data needs to be secure and free from any kind of abuse or possible theft." **Energy aggregator**

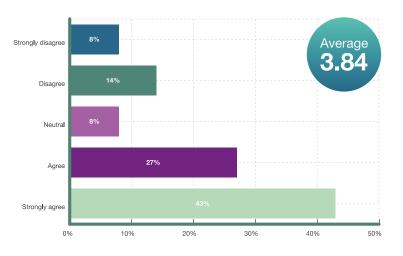
Should WPD focus on reducing emissions from generation / operational transport / building energy use instead?

- "That's interesting, as use of the internet doesn't come without carbon use. You need a consistent framework against which you can compare the cost of abatement across all options. It's also down to the opportunities that appear across the path. It's taking the opportunities against the framework of what the cost of opportunity is."
 Energy consultant
- "EVs run on electricity. 40% of this is produced from gas so an awful lot of carbon is being emitted by creating the electricity in the first place." **Consumer body**



Business Carbon Footprint

To what extent do you agree with the following statement: "WPD should weight the carbon reduction performance of contractors at least as highly as cost and safety."



4. What is the best way to engage with suppliers and contractors to reduce Scope 3 emissions?

- "It would be helpful to include that in contracts, and see contractors rewarded for good practice." Local authority
- "I don't know that it has to be more expensive, and I don't know that it has to be an overriding factor. Maybe there's areas of the business where those consultants need to reach a minimum level that meets WPD's target for what they want to achieve but if the actual work involved is not significantly impacting on environmental matters then it doesn't need to be the gold plate standard." Energy consultant
- "I think that the simplest approach involves ensuring that suppliers and contractors both upwards and downwards within the supply chain are incentivised to reduce Scope 3 emissions. I realise that this would be hard, but surely funding mechanisms could be set up to offset any losses." Business customer



Should we award carbon reduction like cost reduction in tendering & purchasing?

- "Having been involved in tender evaluations of a large contact, it is a minefield but should be considered and given appropriate weighting within any tendering procedure so that companies know what they're supposed to be achieving. Are they going to get points 1-5 in any evaluation? Also, should they conform to minimum standards? I don't think that you should necessarily go for all the companies that score 5, but it should be in the mix." Local authority
- "Noise pollution should that be identified? There's an issue of using electric chainsaws
 – you can bring those within recommended exposure limits. It's one area where you
 might benefit from rolling this out." Parish / community council
- "I agree. This reduces the need for ear defenders." Local authority
- "My problem with using ISO accreditation is that it would affect the competitions market." Energy consultant
- "It's horses for courses. You're not going to get a small contractor bidding for large contract." Local authority
- "Presumably, suppliers will be on a framework arrangement of some sort. They should have a statement on what their carbon emissions are per activity. WPD could have an equivalent table that weights carbon and costs." **Energy consultant**
- "Subcontractors will be bound by the laws of the land to be more efficient and carbonneutral themselves." **Consumer body**
- "It's important to have standards that you expect subcontractors to comply with. Without these you have the worst ones being the cheapest and getting contracts. WPD should have a more holistic view when considering suppliers. They should specify expectations and tell them what they have to comply with a couple of years ahead." Local authority
- "With councils we're tied into certain contracts for certain time periods. For us, this
 has happened prior to us declaring a climate emergency. What processes do you
 have in place to update those contracts to get them to the level you're working to
 now?" Local authority
- "I'm a supplier, and as a small organisation it's not always easy for us to measure these things. By trying to do a good thing you might end up with a supplier base



of only large suppliers because of lack of capacity for reporting among smaller businesses." **Energy consultant**

 "Transmission, pollution prevention and biodiversity are the easiest areas to focus on. Make innovation and quality a higher-award target on tenure bids and contracts. Responsible supply chains will be massive in the future." Environmental group

5. Do you have any specific comments or suggestions you would like to raise in relation to any other focus area under 'Net Zero'?

NB. These are:



- "If you educate people on what's achievable and put a scheme out with schools, they'd understand it more and be able to contribute better to the debate. At university, you don't really get DNOs engaged with education. This would be more productive."
 Energy consultant
- "One thing that interests me is vehicle to grid." Local authority
- "That's a classic example. It wouldn't save any carbon. Your net carbon contribution is more than just using the fuel. That's the sort of education piece you need." Energy consultant
- "We spoke previously about WPD being an enabler. This applies here. If communities want to set up a microgrid, I understand there are complications in doing this. As an enabler you could sit there in the middle and really help." Parish / community council
- "WPD needs to push the conversation forward about using cars less and adopting smart travel." Local authority



- "The ambition to have the company's entire fleet electrified by 2025 is tricky, as it's virtually impossible for workers to charge on the go at the moment due to the limited scope of the EV charging network, particularly with the size of WPD's operating area."
 Business customer
- "I agree that there needs to be far more investment in EV charging points to enable electrified company vehicles to get around. It would defeat the whole point if an EV driving to a remote rural location had to use a dirty diesel generator to charge up."
 Business customer
- "Is there any way of helping to fund fast-charging points for EVs so we can encourage people to come to our town knowing they will be able to charge their cars?" Local authority
- "We do need to do something to help the economy and the planet, but there also needs to be serious consideration of the impact on communities. Reducing the use of red diesel may be good for the environment but it's not necessarily good for users and households. This will have an impact on drainage board rates, which passes the cost on to households." Local authority
- "It is easier for businesses to transition to EVs than the public. We are looking at whether we should implement planning rules to say all new houses should include charging points. But the biggest sales in petrol stations in my area is diesel, because most vehicles run on diesel around here due to the amount of agriculture in the region." Local authority
- "2043 seems late in comparison to others. The national target is 2038 and lots of organisations are 2030. In short, more detail is needed but it seems like it should be sooner." Local authority

To what extent do you agree with the following statement: "WPD should use offsetting to reduce its carbon emissions in ED2"?





6. Should we use offsetting to reduce our carbon emissions?

- "Peat bogs are fantastic carbon sinks. Regenerate these areas back from agriculture; otherwise, carbon offsetting could become an excuse." Parish / community council
- "Offsetting has its place, but it is always interim. They should be leading the way.
 I would expect WPD to not use offsetting unless it's absolutely necessary to meet their targets. But they should be leading, and not relying on just offsetting the issue."

 Business customer
- "They will plant saplings that grow very slowly over 20 years. The carbon capture then doesn't happen for decades." **Community energy group**
- "I'm very suspicious of it. It's no good if it's used to absolve. Grade 3 land into peat is a great idea, though." **Community energy group**
- "It's not necessarily useful to use offsetting as one term. In terms of WPD, I wouldn't support offsetting if it's just a case of carbon credits; I don't think the scheme is mature enough. What I would support would be some kind of insetting scheme." Local authority
- "Offsetting is brushing the problem under the carpet." Business customer
- "I echo this. Please, no more trees! My view is, keep it local or within your organisation or even your WPD patch so the link with carbon offsetting and what people see is direct." Local authority
- "I broadly agree. Carbon offsetting sort of avoids the issue rather than dealing with the carbon in the first place. It's often not clear what effect planting trees will have. It takes trees a long time to grow. Also, you need an awful lot of trees. If you continue offsetting, that means continuing to find places to plant trees. It's not really solving the problem." Environmental group
- "Offsetting should only be a last resort. There needs to be holistic approach rolled out in collaboration with other DNOs and the Network Grid." **Business customer**
- "SF6 takes over 1,000 years to decompose, but its use is expected to grow by 75% within the power industry by 2030. In the short and medium term, we will need to use offsetting as a fairly prominent solution, rather than a last resort."
 Storage and renewables provider / installer
- "Offsetting sounds OK, but you are just kicking the can down the road."
 Parish / community council



- "Balancing oil against carbon is very difficult as they're not really related."
 Energy consultant
- "Offsetting is good, but your priority should be to reduce your impact. As for doing your own offsetting, most of the times where WPD is impacting diversity they don't own the land. If you controlled the long-term lease of the land, you could do more offsetting, so it could be interesting, but it must be the last resort where you can't mitigate at source." Energy consultant
- "The tricky thing is you often don't control the land you operate on. When it comes to diversity net gain, the problem is if you have built a development you might not have space on the development to offset, but you don't have swathes of land to offset on. For cable laying, it would be incredibly hard, and I think not practical." Energy consultant
- "There is a middle ground in helping the move towards a net zero target. Lots of projects around sustainability that WPD are planning, could they qualify as offsetting projects for others to invest in? Then investment from WPD can be reduced or the ambition can be increased. Offsetting can help new technologies get off the ground. Just investing in tree planting is not the right focus. Have a portfolio of different things including actual renewable technologies." Energy consultant

7. How would you like to be involved in WPD's environmental journey?

- "Our number one priority is seeing a strengthened grid. It allows better decarbonisation of supply. We have quite a few rural areas that have a less strong supply. That's quite a constraint in some areas. The faster the better in terms of helping us meet our targets."
 Local authority
- "Having the infrastructure on the ground and reducing transmission losses." Local authority
- "WPD has got a huge role to develop in being proactive, in bringing realism to the market. I think there's a huge gap about governments and pseudo bodies like Ofgem not actually knowing what the real picture is, and somebody needs to bring them down to Earth." **Business customer**
- "We need a power supply for EVs before we can bring them in." Business customer



- "Bring it to the fore of the company's agenda so it can be made more visible." Local authority
- "Have a dedicated page for what problems you're trying to solve. Whenever I do a university project, I'm always scrambling around for a problem I want to focus on in your work. Make that visible and you can get students to help you." Energy consultant
- "In the plenary, there was a distinction between Scope 1, 2 and 3 emissions. Scope 2 includes electricity. Has your strategy included an assumption that grid electricity is going to go to zero carbon by 2050? Because that would grossly affect your strategy."
 Local authority
- "I think that there needs to be a total attitude change from government, individuals and businesses to reduce journeys, energy use and the number of things that they buy. We don't seem to be there yet, but things are moving in the right direction slowly."
 Local authority
- "We need to make sure all of the targets pushed on contractors are applied to the business itself, so we can all feel we have an equal role." **Business customer**
- "I'm interested in getting involved with tree management." Consumer body
- "I'm interested in offsetting, depending on the type." Local authority
- "Being a local representative and working with the drainage boards and interacting with the farmers, yes, I am very keen to be more involved where I can. I would bring a layman's point of view. I would like to do it through these events or through direct communication, too. It would also include issues regarding fuel poverty and the elderly." Local authority
- "At the airport we have an environmental and sustainability department. I'm sure they would have a lot of interest in this area, so it would be good for them to share best practice with you. We are really committed to achieving carbon neutral in the organisation." **Business customer**
- "More sessions like this but with more facts and figures." Local authority
- "It should be a two-way conversation. We need more information before we can provide our feedback." **Trade association**



Workshop Three Our Climate Resilience Strategy

Summary.

The third workshop, presented by Carl Ketley-Lowe, Engineering Policy Manager, looked at WPD's Climate Resilience Strategy. Carl explained that in the third phase of engagement, stakeholders had fed back their concerns about the impact of extreme weather, flood defences and adapting to climate change. He then outlined WPD's fivepoint plant for its Climate Resilience Strategy and gave some examples of the company's resilience initiatives, such as installing strategic flood defences and assessing changing ground conditions. He also outlined the challenges facing WPD in pursuing its resilience initiatives, including predicting the effects of climate change, choosing the best mitigation measures and investments, and dealing with interdependent risks across multiple sectors.

PREVIOUS STAKEHOLDER FEEDBACK

Participants stakeholder were shown feedback that WPD had received from its third phase of Business Plan engagement and asked whether they agreed with it. There was general agreement with the previous feedback, but some stakeholders took a more nuanced view of some of the issues. Tree planting was a case in point, with stakeholders noting that willows take up less space and grow more quickly than oaks (and are therefore a better choice for replanting), trees could sometimes be relocated, industrial hemp planting could remove more CO2 per hectare than trees and planting low-level vegetation could help to reduce water run-off. Peat bogs and teasel can also capture a significant amount of carbon, while hedgerows can function as an effective windbreak and a habitat for wildlife, it was added. One stakeholder raised a concern about reducing tree cutting and how that might affect security of supply. One stakeholder was concerned that efforts to tackle the climate challenge through EVs and heat pumps were doomed to fail as they would increase the amount of electricity consumed and said that WPD should focus on reinforcement through embedded generation in remote areas.

WPD'S FIVE-POINT PLAN

The company's five-point plan was generally seen to be comprehensive. A couple of additional suggestions for inclusion were made, such as an element around education and schools and co-ordinated action with drainage boards, the Department for Environment, Food and Rural Affairs, and the Environment Agency.

WPD'S CURRENT RESILIENCE INITIATIVES

Looking at WPD's current resilience initiatives, stakeholders generally agreed that extreme weather resilience, particularly with regard to flooding, should be a priority. Extreme weather events, including solar storms, were also raised as an issue that deserved to be high on the agenda. Some stakeholders queried which organisations WPD could work in partnership with to improve the efficiency and effectiveness of its resilience initiatives.

PREDICTING THE EFFECTS OF CLIMATE CHANGE

On how WPD could address the challenge

of predicting the effects of climate change, stakeholders asked whether the company was using worst-case scenarios from climatechange prediction models. It was suggested that the impact of human behaviour should be taken into account when predicting the effects of climate change, and it was generally agreed that models should consider the various microclimates around the UK.

The question of what WPD should be using besides Met Office data provoked some debate among stakeholders. Many felt that Met Office data was world-leading and that WPD would be unlikely to find any better sources of data; however, some felt that it was important to aggregate data from several sources. Others saw Met Office predictions as fairly optimistic and felt that WPD ought to factor in more pessimistic worst-case scenarios than those provided by the Met Office. One stakeholder suggested that more in-depth academic knowledge was required to predict climate change outcomes.

MITIGATION MEASURES

When deciding which mitigation measures to invest in, it was felt WPD could reduce costs by working in partnership with other organisations, for example, when roads are being dug up. Several stakeholders made the point that working together with utilities and critical infrastructure networks would provide the most efficient solutions for mitigating risks related to climate change. The Environment Agency, the Met Office and the Energy Networks Association were also suggested as organisations that should be involved in a cross-sector working group.

Stakeholder Feedback

What have stakeholders told us?

Feedback from third phase business plan engagement:

Impact of Extreme Weather

- Concerned about the effects and response to abnormal weather conditions.
- Think abnormal weather will become more frequent and severe due to climate change.
 More trees should be planted and tree cutting reduced, to facilitate net-zero and provide assets a natural barrier to extreme weather.

Flood Defences

Concern that flood defences may be inadequate and are a big challenge due to changing flood conditions.
 Measures should be expanded beyond flood defences, to consider impacts of big freeze, heatwave and tidal.

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1. Do you agree with the previous stakeholder feedback we have received?

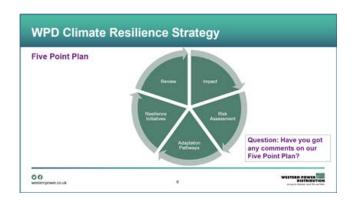
- "From the talk given, it does sound like you're doing what's possible, so leading is great." Utility
- "If we are going down the route of private EVs, and also heat pumps, I'm concerned that they will fail. We'll be tripling the amount of energy consumed, so reinforcing through embedded generation in remote areas and planning for that is the challenge."
 Community energy group



- "Individuals tend to focus on problems of the moment. When flooding took place, I
 remember meetings putting a lot of emphasis on protecting the assets. Severe weather
 would tend to go in cycles, but overall, it has kept WPD focused on protecting their
 assets." Business customer
- "It's alright with a lot of things starting from the bottom upwards, but we as individuals don't have that expertise. Understanding the impact of different environmental changes is not always something that we can just pick up out of the air." **Business customer**
- "If it's a thousand-year storm, there's a very good argument that we don't need to worry about that. If it's 20 years, then yes we do." **Energy consultant**
- "When looking at using vegetation to help with ground-level water, it's not just about trees. Low-height vegetation can help with water run-off, too." **Business customer**
- "Your substations take up quite a large land mass, so there is definitely scope for rethinking how groundwater moves around your estate and even redesigning the positioning of your future network (such as moving substations), now that we know so much more about flooding than we did when your land was originally acquired."
 Business customer
- "The right trees have to be in the right place. Oaks take up a lot of space and willows grow very quickly, so that should be factored into decision-making. Peat bogs and teasels will capture lots of carbon and hedgerows can be a habitat for local creatures." Local authority
- "I think that WPD can be more ambitious with its planting strategy. If it looked to
 plant industrial hemp en masse, the company would then have a large stock of
 plants that would remove more CO2 per hectare than any other and would provide a
 sustainable material for construction. That could go even further than planting trees."
 Storage and renewables provider / installer
- "I think this is too big a topic for the time we have. Failures will have greater impacts on the future. There needs to be connected thinking and this in turn will direct where resources are needed." **Energy consultant**
- "Reducing tree-cutting is one thing I'd question as I've had that experience as a domestic customer where I have lost power due to a tree falling on a cable. From an industrial and commercial point of view, security of supply is critical." Consumer body
- "We need to adapt more quickly to reasonably feasible events. The climate change committee say we should be looking at 4-degree change, not just 2-degree change. Bringing learning across from other parts of the world is important." Consumer body



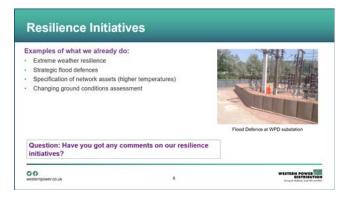
- "I'm in general agreement. I'm very concerned about trees. You should consider moving some trees and you can occasionally relocate 40-year-old trees." Local authority
- "Electricity is so integral to all the other utilities that it probably should be a priority to protect those assets above all." **Environmental group**



2. Have you got any comments on our five-point plan?

- "Something around children needs to dovetail in here. Children come up with fabulous ideas and could really help you come up with initiatives for this five-point plan." Local authority
- "I'm not quite sure they need five points. Isn't it 'react, do, review'? It could be a bit shorter." **Consumer body**
- "It seems logical. It's what one would expect from a business plan, not just where you want to take it but why and taking account of the other parties involved."
 Local authority
- "It looks fine as a plan. You've got to collaborate with other parties such as the Environment Agency, and I'm sure that's part of your plan." Energy consultant
- "It's important to have joined-up thinking and action with the drainage boards, DEFRA and the Environment Agency." Local authority
- "You can't argue with the plan, but you can argue with how its implemented. Can they actually do it?" **Trade association**





3. Have you got any comments on our current resilience initiatives? Where should we put most emphasis?

- "To adapt to climate change and become more resilient, you need to work with local communities on infrastructure planning. In particular, there needs to be careful liaison around the provision and positioning of sustainable drainage systems, so your substations and the huge numbers of new houses being built are not affected by flooding." Business customer
- "Flooding is clearly an increasing issue for WPD. I see a lack of links with water companies. There are four or five big ones in WPD's area. They may be taking action to avoid flooding. That cooperation could eliminate the need for WPD to have flood defences." Consumer body
- "Strategic flood defences need to be strategic and upstream. It's not about wrapping something around a substation." **Consumer body**
- "The flood defence thing ties in with tree management. There will be a lot of felled trees because of ash dieback. The network is becoming much smarter. You should look at island network management in the event of serious disruptions." **Energy consultant**
- "Trying to maximise the land around your substations. One of the regions that could benefit is wetlands as they don't require trees, they are great for flood defences elsewhere, they can have lots of biodiversity and they can lock up a lot of carbon. It would be possible in a lot of flatlands, such as Somerset, South Lincolnshire, etc." Energy consultant
- "There are extreme weather events as well as the issue of solar storms." Energy consultant
- "Three-phase connections should be high on the agenda, and we know we'll be living



a more electric life. EVs, if they're handled well, could be part of the solution. If that battery could be connected to the grid to balance load, we ought to never lose sight of that idea." **Utility**

- "What about Covid? Not being able to get people out to site to work. I suppose we have to keep learning as we go." **Energy consultant**
- "We've heard today about resilience, and everyone's doing the right thing. But who is looking at an overview so that they don't conflict with one another, and the money is being invested in the right place? Who is making that decision and how? So, we know that customers' money is going into a bang for their buck." Community energy group
- "Load shifting, the sunshine tariff that existed for a summer, I believe, and EVs having their connections managed by WPD would all help with range anxiety and reduce that demand. So, how the whole system deals with that whole stress on it."
 Community energy group
- "I'm not sure it's within WPD's remit to do their own research. You've got to collect as wide a range of information as possible and make your own decisions."
 Business customer
- "Is that partnership list wide-ranging enough? I'm wondering whether there maybe needs to be some sort of co-funded group that will analyse that data. I'm sure the WPD guys who represent the Midlands will have a different view to those who represent Wales. I'd have thought it should be a countrywide issue rather than regional."
 Energy consultant
- "As a consultee, often when sitting on a planning application you're looking for evidence for why you need to take a different position. If WPD say based on evidence that flood risk to electricity supply will be increased, mitigation could be put in. Often as a local councillor you know there will be an effect, but this isn't shown by available expertise. Often developers have a strong position. You can potentially end up with more mitigation." Local authority
- "From a local authority point of view, a lot of us have to update local plans every five years. WPD has an ability to tie into that with these resilience measures which feed into that planning assessment work." Local authority



Str	ateg	
	Doy	ou agree with the previous stakeholder feedback we have received?
	Hav	e you got any comments on our five point plan?
	Hav	e you got any comments on our current resilience initiatives? Where should we put most emphasis?
ch	aller	nges
	How do you think we should address the following challenges?	
	1.	Predicting the effects of climate change
	2.	Choosing the best mitigation measures and investments
	3.	Interdependent risks across multiple sectors

4. How do we address the following challenge: Predicting the effects of climate change

- "Climate-change-prediction models will have a wide range of scenarios with different outcomes. Does WPD use the worst-case scenarios? This could be critical in planning towards overcoming the potential effects of future climate-change phenomena, such as sea-level rises, which could pose a threat to low-lying assets."
 Parish / community council
- "An extra factor to include is human behaviour / impact. In Cornwall, wildfires were caused by people going into countryside due to the Covid 'countryside wellbeing' push. The human behaviour aspect integrated with a dry winter to cause wildfires."
 Trade association
- "Have 100-year event definitions changed? It's worth asking, what are we actually planning for? Is this a 100-year event?" **Energy consultant**
- "Thinking local as well as national in terms of planning. Thinking about microclimates all over the UK and how they might affect the extreme conditions in those areas." Environmental group
- "Local climate impact profiles do exist from Met Office data, but that was 10-15 years ago in Herefordshire. It could be done again. It would be great if stakeholders like WPD add to that and make the data more meaningful." Local authority



What else should WPD be using other than Met Office data?

- "The Met Office are the people to listen to for predicting climate change." Local authority
- "Met Office data is world-leading." Energy consultant
- "The Met Office have the expertise, the tech, and are one of the world leaders in that. I would have to bow to their knowledge. I'm sure there are AI systems that could show how devastating an event would be in a particular area." Local authority
- "I can't see how WPD are suddenly going to be technically better than the Met Office.
 I'd be inclined to stick to the experts. If you're engaging with the Met Office, the Met Office are as good as you can get." Energy consultant
- "Are the Met Office climate change experts? They are reacting to patterns rather than having academic knowledge of predicting those outcomes for the next 50 years." Environmental group
- "As I understand it, the Met Office predictions are quite conservative so there's quite a big risk of things being worse. What you have isn't a high-risk prediction." Local authority
- "It's also only one prediction, so it's good to take data from more than one source. It's also good to include the political background of the organisation."
 Environmental group
- "If you were building a new housing development, you could hire an analyst who would use Met Office data to give modelling. Have WPD done the same thing using mapping tools from consultants?" Energy consultant
- "Selecting your mitigation measures and investments is based on your prediction of climate change, so this prediction is really important." **Parish / community council**

5. How do we address the following challenge: Choosing the best mitigation measures and investments

• "I'd like to see you exploit situations where you can work with another organisation for an idea of measure. The thing that's come to mind is where you've got a shared



location, for example, if you're doing stuff in the road. Working together is good to reduce the overall cost of doing something." **Environmental group**

- "You talked about the equipment being put in now, which has a 40-year lifespan. It's difficult to take conservative outcomes now and put in mitigation measures based on something that could be way too conservative. The answer to the predictions is probably going to shape your investment programme under Challenge 2." Local authority
- "I'm a consultant, and logic would say you should look at what is going to cause the biggest impact, but I would always rely on specialist advice." **Energy consultant**

How does WPD best approach this analysis? E.g., do they prioritise a 1-in-100-year event with a huge impact, or a once-a-year event with a much smaller impact?

- "With flooding in particular, we no longer look at 1 in 100 years. We look at 1 in 50 years. I'm not sure if you're using something else but that's the information we've been provided with as those ratios don't work anymore. We get this from the Environment Agency." Local authority
- "WPD should adopt what is seen to be the worst-case scenario." Consumer body

6. How do we address the following challenge: Interdependent risks across multiple sectors

- "The key here is how resilient the network is. What's the aim of this resilience? Should we be thinking in terms of cells within the WPD area that can operate in island mode so the risk of a network-wide meltdown is reduced? So, more resources to enable local resilience at city or county level. This could be some kind of geographical measure that WPD uses." Local authority
- "The report into the Lancaster floods in 2015 is a really useful, simple guide detailing the kind of things that could happen in other places in future. Transport stopped,



supermarkets couldn't accept money, and the only supermarket with a generator couldn't decide whether to open because of all the licensing regulations." Utility

Do you agree that we should set up a cross-sector working group? Which sectors should be involved?

- "The Environment Agency and the Met Office. This should involve WPD and the Energy Networks Association." Consumer body
- "All critical infrastructure networks should be involved. You have to rattle through systematically to establish where the Achilles heels are in all this." **Energy consultant**
- "There's got to be, to avoid wasting money. All of the utilities need to be talking to each other." **Energy consultant**
- "It should involve all the utilities and the local authority." Local authority

7. Any other comments?

 "I use your carbon calculator quite a bit and I feel you could promote that more because not many people are aware of it. It would be a good thing to publicise it more." Local authority

Appendix 1 Attendees

A total of 52 stakeholders attended the workshop, representing 43 organisations. The organisations represented on the day are shown below:

Adler and Allan I td **Babcock Networks Ltd Birmingham Airport** Bratton Fleming Parish Council Caerphilly County Borough Council **Carmarthenshire County Council** Centre for Sustainable Energy Chacewater Community Energy Group **Clent Connect** Climate change group associated with Woburn Sands Town Council **Cornwall Council Customer Engagement Group Electricity North West Energy Systems Catapult** Federation of Small Businesses Fully Charged Show Ltd **GE** Consulting **GPT Environmental** Herefordshire Council **Kier** Low Carbon Gordano Lucy Electric Major Energy Users' Council Milton Keynes Council Newent Town Council

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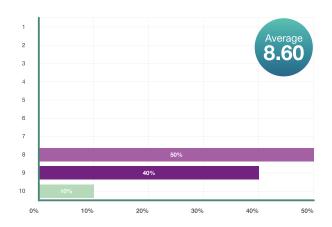
North Kesteven District Council North Somerset Council North West Leicestershire District Council **Pollock Associates** PyroGenesys Ltd Rhondda Cynon Taf County Borough Council **Rutland County Council** SMS Energy Services Ltd South Holland District Council South Kesteven District Council South Somerset Community Energy Telford & Wrekin Council **Tewkesbury Borough Council** The Open University The Schumacher Institute University of Warwick Wolverton Community Energy



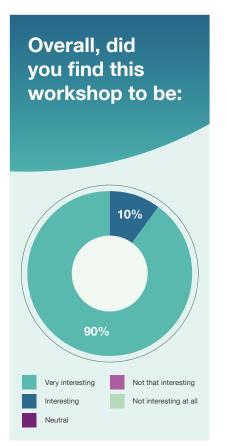


After the workshop, stakeholders were asked to complete a short feedback form. The feedback was as follows:

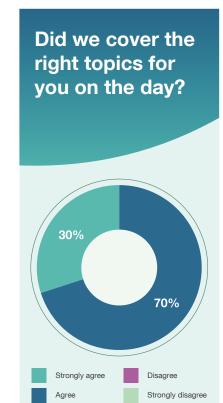
Overall, how satisfied were you with today's workshop?



"Voting was very slick."

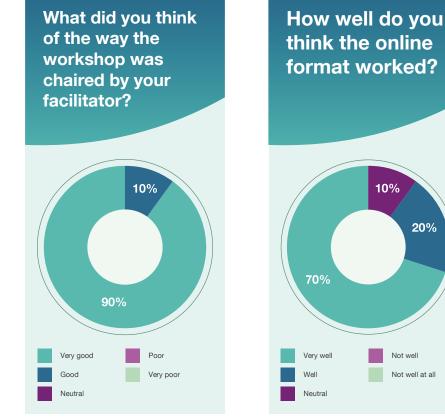


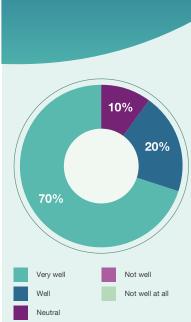
Did you feel that you had the opportunity to make your points and ask questions?



Neutral

⁶⁶Nothing can beat face-to-face personal interactions."





Comments

- "I look forward to the next round, and would welcome WPD to be part of our community energy event in autumn 2021."
- "Clear instructions, good slides and plenty of time in breakout rooms for discussion."
- "The technology worked quite well for me on a laptop, but in opening up another online session for Slido, I lost the main screen of the workshop and only managed a small square. It righted itself when we switched back into the breakout groups."
- "The online format enabled me to participate. I would not have travelled to such a forum."
- "Great chance for collaboration in breakout groups."



- "Good quality, facilitators worked well to encourage engagements and keep conversations on topic."
- "Great breakout room discussions and felt contributions were appreciated."
- "Can always use more time. Quite a lot of info!"
- "Technology held up well."

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