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WESTERN POWER DISTRIBUTION

Innovation Strategy Workshop – Feedback Report

25 February 2021



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Introduction

On 25 February 2021, Western Power Distribution (WPD) hosted a workshop to seek feedback from stakeholders on its Innovation Strategy as part of a series of delivery strategy workshops.

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.

The session was split into two main workshops. These are shown below:

- **Workshop One: Innovation Strategy – Our proposed approach**
- **Workshop Two: Innovation Strategy – Delivering with our stakeholders**

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 that all DNOs 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 demonstrate that they will meet the baseline requirements set by the regulator. This workshop focused on one of these delivery strategies, namely innovation.

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

The stakeholders in attendance came from a diverse range of backgrounds, with local authority representatives, energy consultants, businesses, academics and community energy group representatives all in attendance. Some were keen to learn about WPD's role as an energy distributor in general, while others were interested in learning the detail of WPD's Innovation Strategy. Key interests raised included how innovation and education could be more closely integrated in future and how WPD could encourage community groups to innovate and connect to the network.

- A total of 52 stakeholders participated in the workshop, representing 46 organisations. The full list of organisations can be found in Appendix 1.
- 100% of attendees who filled out a feedback form told us that they found the workshop to be either 'interesting' or 'very interesting', and participants rated their overall satisfaction with the event at 8.15 out of 10. A full breakdown of the feedback from the event can be found in Appendix 2.



Workshop One

Innovation Strategy – Our proposed approach

The event began with an introduction from Richard Allcock, Stakeholder Engagement Manager at WPD. Richard gave an overview of WPD's stakeholder engagement programme and the business planning process for RIIO-ED2. With reference to its Innovation Strategy, WPD was looking to understand stakeholders' views on its areas of focus and level of ambition, as well as refine and co-create specific deliverables under these areas.

Yiango Mavrocostanti, Innovation Manager, then presented the first session of the day. The key points from the breakout discussions can be summarised as follows:

- Stakeholders discussed WPD's innovation aims for ED2, 'keeping electricity affordable', 'continue transforming our network' and 'achieve Net Zero', making a range of proposals and suggesting refinements under each area. There was some disagreement around affordability, with several participants feeling that WPD should prioritise investment in innovation over short-term cost savings for customers, and others stating that cost savings were needed more than ever in the current climate. 'Transforming our network' was felt to be too vague and, crucially, was seen as more of a statement than an aim, with stakeholders calling for the addition of more metrics and suggesting that there needs to be a wider recognition of a whole systems approach within this objective. In terms of achieving Net Zero, it was commented that there is a potential trade-off with other priority areas such as service quality and affordability.
- When asked to comment on WPD's level of ambition for its Innovation Strategy, many stakeholders felt that while £4 million is a relatively small amount, creating a culture of innovation is perhaps more important, for example, by embedding innovation in every department and at every level of the business. As for what more WPD should do to encourage, monitor and deliver business-as-usual (BAU) innovation and innovation rollout, suggestions included having a board member responsible for innovation, demonstrating how proposed innovation is assessed against a framework of risks and opportunities, monitoring innovation using metrics such as technology readiness levels and demonstrating that lessons learned from innovation projects are embedded in BAU.



- Stakeholders were asked to reflect on any best practice they had encountered and suggest how WPD could apply this in its own business. Suggestions included having an ‘innovation cell’ within the organisation, having a non-executive board member responsible for scrutinising innovation projects, and looking beyond the energy distribution network for ideas to emulate, including among start-ups and small businesses in particular.

Workshop Two

Innovation Strategy – Delivering with our stakeholders

The second session was also delivered by Yiango Mavrocostanti. The key points from the breakout discussions can be summarised as follows:

- When presented with WPD’s Innovation Strategy, stakeholders questioned whether some areas would be prioritised over others and felt that a ‘rich picture’ would be useful to show the links between areas and to enable WPD to identify gaps, risks and opportunities within the strategy. As for areas they felt were missing, participants suggested network reliability, cyber security and transition to DSO, as well as an area that reflects WPD’s future role in nudging customers to become more energy efficient and enacting wider societal change around energy use.
- In terms of generating ideas and partnership working, it was felt that WPD needs to encourage innovation within the business and work with a range of partners, such as Local Enterprise Partnerships, local councils, start-ups and organisations such as the Energy Innovation Centre. In general, stakeholders felt that WPD should be much more open and collaborative in its approach to innovation, including by publishing a list of innovation challenges cited by stakeholders and encouraging stakeholders to put forward potential solutions.
- Stakeholders felt that the innovation ‘ideas portal’ would be useful, ideally as part of a hybrid approach including in-person forums. It was felt that, if implemented, the portal should be part of a structured approach whereby more general ideas are gradually



refined into workable projects. Importantly, it was felt that the portal should be as accessible as possible to ensure that no input is excluded owing to a lack of relevant technical expertise or experience on the part of the stakeholder.

- Lastly, in terms of leading internationally, it was felt that WPD must ensure a balance between its outward-facing activities – including looking abroad for best practice – and its inward-facing activities, namely its internal business priorities. That said, stakeholders did feel that WPD could gain valuable insight by considering DNOs in countries with similar energy systems to the UK, and by sharing its findings among the other DNOs.



Workshop One

Innovation Strategy – Our proposed approach

Summary

Yiango Mavrocostanti explained that WPD has been running innovation projects since 2005, funded through Ofgem's incentive mechanisms, which enable the company to develop and trial solutions needed to address major challenges. In RIIO-ED1, these projects included areas such as active network management, flexibility services and intelligent voltage management. In RIIO-ED2, the need for innovation will be greater than ever before, as it is expected that a large number of low-carbon technologies will be connecting to the network. As commitments under its Innovation Strategy, WPD will encourage BAU innovation, invest £4 million per year in BAU innovation, expand its innovation team by 50% and create internal performance metrics for BAU innovation.

REASONS FOR ATTENDING

Attendees referred to a wide range of interests. Local authority representatives were keen to learn more about WPD in general, although several also expressed an interest in the details of WPD's Innovation Strategy for ED2 with a view to understanding how it would align with their own local authority energy strategies. Several engineering consultants and business representatives were already working closely with the distribution network, for example, by collaborating with DNOs on digital solutions or by helping developers to connect to the network. Academics were interested in how WPD's Innovation Strategy could align with students' areas of study and,

more broadly, how innovation and education could be further integrated in future. Community energy groups in attendance ranged from groups with renewable generation schemes already in place to those interested in discovering how they could navigate costs and conversations with WPD to develop such schemes in future.

ED2 INNOVATION AIMS

Stakeholders were asked whether they agreed with WPD's innovation aims for ED2 – 'keeping electricity affordable', 'continue transforming our network' and 'achieve Net Zero' – and whether they thought anything was missing. It was commented that innovation should naturally include innovative ways of working with external organisations, such as local authorities and businesses, to drive innovation forward and unlock investment. While stakeholders did feel that WPD is leading on innovation, they noted that the company should also seek to collaborate with other DNOs. This was reflected in the general sentiment that the aims were perhaps too internally focused, and that in ED2, WPD would need to place greater focus on outreach and engagement with the customer, given the broader scope of its role in educating customers and promoting behaviour change in the shift to DSO. Moreover, questioning whether WPD's aims are still relevant, one stakeholder asked whether they had been revised in the wake of the Covid-19 pandemic.



KEEPING ELECTRICITY AFFORDABLE

It was noted that ‘keeping electricity affordable’ could be reworded to ‘keeping electricity equitable’, as ‘affordable’ was felt to be too subjective and unclear. It was also suggested that the phrase ‘and accessible’ could be added to this aim to reflect the idea that WPD should be promoting new technologies to its customers. It was felt that affordability was often prioritised over innovation, but looking ahead to ED2, WPD should potentially consider sacrificing modest short-term savings for households in favour of innovations that would bring long-lasting benefits. However, there was a lack of consensus on this, as some felt that customers should not be put under too much financial pressure from WPD, particularly vulnerable or fuel-poor individuals. As one stakeholder put it, WPD would need to effectively balance its network transformation and net zero goals against affordability.

CONTINUE TRANSFORMING OUR NETWORK

Under this aim, it was commented that given the existing barriers to community energy projects, such as network constraints and lack of capacity, WPD should perhaps consider “radical” innovation rather than simply BAU innovation. The point was made that this aim in fact reads as a process rather than an objective, and WPD needs to state more clearly what it plans to achieve through its network transformation or at least outline its direction of travel. One attendee suggested that network transformation should be aimed at establishing a decentralised energy system which is accessible, resilient and caters to the needs of vulnerable customers. On a similar note, it was commented that the metrics for this aim are unclear, for example, with regard to how WPD would benchmark its progress or

measure success. It was also suggested that the word ‘network’ be replaced by the word ‘system’ to reflect the idea that WPD should be implementing a whole systems approach rather than focusing solely on transforming its own network.

ACHIEVE NET ZERO

Under the third aim, it was suggested that WPD should go further by striving to gain carbon negative accreditation. Some commented that this aim should not be achieved at the expense of service quality or network resilience, and the point was made that WPD needs to demonstrate more clearly that it is on the same net zero journey as other organisations. To this end, it was suggested, WPD could present its plans alongside government targets and timescales. Moreover, WPD should ensure that those unable to afford smart technology are not excluded from the smart energy transition, perhaps by developing specific innovations to help support the fuel poor. In terms of what is missing under this aim, it was commented that there ought to be a marketing piece around engaging community energy groups, whose participation was seen as key to achieving this aim, and perhaps the addition of a target date, given that the level of ambition could vary quite significantly depending on the date by which WPD hopes to achieve this aim.

WPD’S SCALE OF AMBITION

When asked to comment on WPD’s scale of ambition for ED2, stakeholders felt that £4 million is a fairly small amount when compared with WPD’s turnover, but that how the money is spent is more important than the amount available. In that respect, it was felt that WPD should work with other DNOs and keep the scope of its innovation projects



as broad as possible. It was commented that every WPD employee should have the chance to suggest innovation projects, especially those in customer-facing roles, who may come across good examples of innovation quite frequently but do not currently have a platform to relay these ideas. It was therefore felt that innovation should be placed at the heart of WPD's culture, rather than operating in a silo. To support this, it was felt that senior executives could lead by showing that innovation suggestions are taken seriously, regardless of who makes them.

When asked whether a 50% expansion of WPD's innovation team would deliver sufficient resources for BAU innovation, stakeholders broadly felt that they needed more context, including in terms of what this percentage increase means in real terms and what a larger innovation team would be able to achieve compared with the size of the current team and its performance levels. When asked whether £4 million was about right to drive BAU innovation, there was concern that this would not go far enough, particularly given the expected pace of change in ED2. It was suggested that WPD could potentially make the business case for a larger investment by presenting a tangible list of deliverables.

ENCOURAGING, MONITORING AND DELIVERING BAU INNOVATION

As for what more WPD should do to encourage, monitor and deliver BAU innovation and innovation rollout, suggestions included having a board member responsible for innovation, demonstrating how proposed innovation is assessed against a framework of risks and opportunities, monitoring innovation using metrics such as technology readiness levels, and proving that learning from innovation projects is embedded in BAU rather than simply representing a box-ticking exercise. In terms of engaging with

wider stakeholders, one attendee called for WPD to target the entire £4 million spend at allowing communities to bring forward more net zero solutions at a local level. Similarly, it was felt that WPD should enact a process of continuous engagement with stakeholders specifically around innovation. It was also felt that WPD is not well represented at third-party innovation forums and could do more to tap into existing funding streams and promote its innovation team. Moreover, WPD should let stakeholders know about all innovation on the horizon – even innovation projects with a low probability of success – to ensure transparency and foster trust. Key partners that WPD should work with included developers, universities and energy consultants.

LEARNING FROM BEST PRACTICE

At the end of the first session, stakeholders were asked to reflect on examples of best practice within their own organisations and beyond. With reference to development projects involving multiple landowners, it was suggested that given its customer-facing position, WPD could more proactively engage with energy users to advise them on energy use and reduction. Another suggestion centred on having an 'innovation cell' within the organisation, where innovation is actively encouraged as part of an open forum rather than an input-led process. One attendee raised the importance of having a neutral party, such as a non-executive board member, whose role could be to scrutinise and criticise innovation plans without fear of reprimand. Crucially, when drawing on best practice, it was felt that WPD should look beyond its own industry to find organic sources of innovation, such as in small businesses and start-ups. Lastly, it was suggested that WPD could focus on the four attributes of agility in supply chain risk management (responsiveness, robustness, flexibility and resilience).



Stakeholder Feedback

Introductions

- “We’re in the process of buying two solar farms in South Devon. We’re interested in innovations around real-time data monitoring.” **Community energy group**
- “I’m interested in anything to do with WPD’s operations on the customer side and how the Business Plan will affect prices.” **Business customer**
- “I work for a power systems consultancy and support WPD on the engineering side. I want to understand how the Innovation Strategy is changing for ED2 and how we can support WPD on projects.” **Energy consultant**
- “I work for an environmental charity in Bristol and one of our projects is supporting a community energy initiative. I’m here to gain a greater understanding of what WPD is doing in terms of innovation during ED2.” **Environmental group**
- “As a representative from an academic group, I’m interested in how WPD’s innovation strategies can benefit our students with future employment opportunities and with the community engagement opportunities surrounding that, which would help to bed in any strategies.” **Energy consultant**
- “I’m interested in innovation market operations and infrastructure projects. I also want to find out how we can partner and collaborate with WPD on innovation and assist with education around innovation so that we can help drive the industry forward.” **Academic institution**
- “I work for a WPD supplier and I’m interested in how our exciting innovation strategies could align with WPD during ED2.” **Energy consultant**
- “I’m the technical director for a club of very large users of energy. A lot of our members are supplied by yourselves, with companies such as Severn Trent Water. We’re interested in a number of issues with yourselves and innovation covers most of those, particularly things like demand-side response.” **Consumer body**
- “I’ve worked with WPD for about eight or nine years on innovation projects, particularly



around the low-voltage side and how we both monitor through our grid key system. I'm very keen to see the linkage across to BAU. There's too much innovation that hasn't seen the light of day in BAU in my opinion." **Storage and renewables provider / installer**

- "I'm a parish councillor and the chairman of the environment committee. We, along with many others, have declared a climate emergency, but we haven't really had a chance to do anything about it. I'm really interested to understand how WPD can work with parish and district councils to help us to start doing something to put something back into the grid." **Parish / community council**

1. Do you agree with our overall ED2 aims and is there anything missing?

- "There are good examples set by Microsoft and Shopify regarding accredited carbon negative solution certificates. Could WPD look at that kind of model to promote with its stakeholders and customer base?" **Storage and renewables provider / installer**
- "It's rather internally focused. Carbon-neutral fuels, for example, could be an external focus. Also, you will be reliant on changing people's behaviour and nudging them, but there isn't much about consumers." **Community energy group**
- "I have an issue with the term 'affordable'. We've been doing works and we use the word 'equitable'. What someone thinks is affordable can vary quite vastly, and it's more about having an equitable future energy network. Someone might have broader shoulders and can afford more." **Local authority**
- "The Government's approach to cars is to change the way the car works, rather than changing the way jobs work so that we don't have to travel. The word 'transforming' doesn't give you enough innovation." **Trade association**
- "The devil is in the detail. We have a ticking clock in terms of climate change. People



need to see that you are on the same journey, so you could mention government plans and timelines, for example.” **Energy consultant**

- “You seem to be doing everything yourself. I know that you’re a leader and are trying to spearhead efforts, but isn’t there a benefit to sharing the load with other DNOs and bodies in the industry?” **Business customer**
- “Broadly, these are very good aims for the innovation team, but for me, there is a piece missing. A good cost balance is in there, but to be optimal, some pathways should include innovative ways of working with other organisations like local authorities. You want to be able to incorporate a number of actors and unlock investment.” **Energy consultant**
- “I think it’s quality of service to customers that might be missing. Yes, we want to be affordable and achieve Net Zero, but we also want to improve the service we provide consumers and that means reducing the time of outages and things like that.” **Storage and renewables provider / installer**
- “In transforming the network we’ve come up against issues when we’ve been planning to install a community solar farm, for example, and there isn’t enough capacity to receive the output. You also keep talking about BAU innovation, but with all those things to make sure that new renewables can connect to your network, are you not thinking about radical innovation as well?” **Academic institution**





Are there any specific points you would want referenced underneath the three main headings?

- “I think the words in the first box should be ‘accessible’, ‘vulnerable’ and ‘resilient’. Those are the planks on which you want to base the work that you’ve been doing previously. From my point of view, that means utilising innovation to be able to find solutions that will decentralise that energy network rather than compound a nationalised system.” **Local authority**
- “I think a huge part of the mission going forward is to engage with communities and to involve people like the parish councils in innovating in the community. What I’m seeing here is the missing of the marketing piece which is looking at how you go out to more groups and engaging with them and including them in innovation. There’s innovation locally that isn’t going to be done in this model.” **Parish / community council**
- “Putting a date next to when you’re going to achieve Net Zero could be quite key to understanding the level of your ambition. Taking it to 2030 is a completely different ask from 2050.” **Local authority**
- “In terms of transforming the network, for me, that’s a process rather than an outcome. What are you trying to achieve? That would be a better aim. Regarding Net Zero, I fully support that, but alongside that there needs to be something about climate resilience and adaptation. You need to make sure that what you do either has no impact or a positive impact on the environment and make sure it’s not forgotten.” **Local authority**
- “It’s a two-parties game for the DNO to lead but get that engagement from users of the network. I’d like to see ED2 largely focussed on input from customers. They might not like all changes proposed and they may feel like it’s encroaching on rights and abilities to do what they want whenever, but it’s striking a balance; it’s part education, part cultural and behavioural. It’s not going to be black boxes and widgets that are going to deliver the final solution.” **Energy consultant**
- “There is also the health emergency. There’s not a lot you can do directly, but one impact is your ability to respond to people working from home more. For example, in our area we are already seeing more buying houses in the countryside as they can work from home now, so there’s no need for them to live in the city.” **Local authority**



What about a whole systems approach?

- “A whole systems approach is a good idea, but people have different ideas of what one is. In my view, making electricity affordable is important, but it should not go so far the other way that it prevents the industry from being competitive. At present, I feel that the focus is too much on affordability and I feel that the small savings for each household could go towards innovation efforts instead.” **Academic institution**
- “I agree that more collaboration with other DNOs would be great.” **Academic institution**
- “‘Continue transforming our network’ – it’s more than that, it’s transforming the energy system. It’s about having a more holistic viewpoint on energy. You need to enable other networks to transform too.” **Local authority**
- “Supporting the economy generally, that’s just as important as supporting existing customers.” **Business customer**

ED2 Innovation Strategy Overview



ED2 Strategic focus

As we expect a large number of LCTs to connect to our network during ED2, the need for innovation within our business will be greater than ever before.

Our work will not stop at delivering innovation projects

- We will focus on encouraging BAU innovation.
- We will expand our innovation team by 50% with resource dedicated to delivering BAU innovation and rolling out innovation.
- We will invest £4m per year on BAU innovation that will provide cost efficiencies throughout our business.
- We want to be celebrating and encouraging BAU innovation and for this reason we will be creating internal performance metrics that will enable us to drive that.

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2. Is the scale of ambition and change sufficient to drive BAU innovation?

- “I think that it’s a good start, but in comparison to WPD’s turnover, the £4 million per year spent on BAU innovation is very small.” **Energy consultant**
- “For me, it is more important to know how the £4 million innovation fund is spent: is there a specific area of innovation or will it be far more open?” **Energy consultant**
- “I’ve just been on the RIIO-ED2 engagement groups with gas and electricity transmission. They’re targeting the various managers of their departments and saying it’s their budget that has to pay for innovation. In other words, if new ideas come up, they have to drive it, and not some innovation team sat apart from it. I think that’s quite a sensible approach that perhaps WPD would adopt in taking ownership of the various sections within WPD.” **Consumer body**
- “I think it’s very difficult to judge. It would be interesting to hear the difference between the different processes.” **Environmental group**
- “When it comes to tendering, we lose because even though we come out with great solutions, we are too expensive. And so sadly, DNOs are now becoming driven by finding the lowest-cost solution. As a developer, we can get trapped.” **Developer**

Do you think the upscaling of resource is enough to address the challenges of ED2?

- “The innovation team is important, but I think it should be distilled to all parties in WPD. The day-to-day people that deal with new connections and developments, they should fully understand opportunities where innovation might be needed. In other words, the customer-facing people.” **Business customer**
- “Potentially not, as the low-carbon technologies and the effects on the network’s



loads are some of the bigger issues faced by DNOs. It won't be something just faced by WPD, so it would be useful to talk to other DNOs and work together with them.”

Energy consultant

- “I thought that this workshop would be innovation at a wider business level, but the scope here seems too narrow. I would like to see the whole Innovation Strategy for across the entire organisation and what you're doing with other bodies to drive forward innovation. In addition, £4 million is a paltry spend.” **Business customer**
- “I like the celebrating and encouraging BAU innovation, but I would like to see more about what is being done on that front. Spell it out a bit more please.” **Business customer**
- “I like that this stuff is being done, but with the huge challenges that we're facing, perhaps a new approach is needed so that innovation is integrated throughout all operations, rather than standing alone as a separate department.” **Environmental group**
- “One thing that's good about WPD is how well it has used partner networks and knowledge within the industry in the past, so is there any way BAU could be hooked up with that? If you are going to change internal innovation, you want to develop a partner approach to innovation too.” **Energy consultant**
- “Innovation needs to be incorporated into the culture of the organisation, which starts with the top team and execs. If they behave innovatively, then others will emulate that. It's about giving people permission to innovate.” **Energy consultant**
- “The top team need to show the employees that all ideas will be taken seriously.” **Local authority**



Thinking about the radical changes taking place in the energy system:

a) Do you think expanding the innovation team by 50% will deliver sufficient resource to deliver on BAU innovation?

- “I find it difficult to comment. I don’t know what a 50% increase means in terms of heads, and I don’t know anything about the £4 million in terms of a percentage increase.” **Business customer**
- “50% is really pointless; it should be what’s necessary, and that could be more or less.” **Trade association**
- “It would be useful to have the quantitative figure as well as the percentage for both these aims. 50% could be a team of 8 becoming a team of 12. It should be a rule for every metric.” **Energy consultant**
- “Focusing on BAU innovation is the right thing to do, but 12 people doing that does seem like David versus Goliath. Telling hundreds or thousands of people to innovate when they’ve been taught to follow procedures is a tough ask. It depends on how those 12 people are going to be used in terms of getting an entire behaviour change.” **Energy consultant**
- “You need to set the context. Are you talking Ofgem-funded innovation projects or innovation projects with a partner that are maybe financed by the developer themselves? In terms of the number of people, it’s how they’re deployed. It depends on the region; some have more going on in terms of wind, for example, but it will change over time. The number of people you need should be demand led.” **Local authority**



b) Do you think £4 million is about right to drive BAU innovation (note: £4 million is half of WPD's current Network Innovation Allowance annual budget?)

- “£4 million a year investment sounds like a low figure from a university perspective. Normally such a project would be 1 to 2 million per project. £4 million might not be sufficient to cover ED2, especially in a fast-changing landscape with increasing digitalisation, for example.” **Academic institution**
- “What is £4 million in your context, is it a drop in the ocean? I’d imagine it isn’t that big.” **Trade association**
- “£4 million in BAU innovation doesn’t seem like an enormous amount. I have no idea what percentage of the budget that may be, but for the largest distribution network company in the country, it seems like a relatively small amount. It wouldn’t be difficult to justify a much larger investment if you had a shopping list of tangible things, be that battery storage, distributed battery storage, connections or geothermal.” **Community energy group**

3. Is there anything more we should do in ED2 to encourage, monitor and deliver BAU innovation and innovation roll-out?

- “Something that made the most difference at E.ON was having a board member responsible for innovation. The most important thing is to ensure that bonuses and targets for senior management incorporate an innovation measure, for example, on the innovation project their department is involved with, and on how well they support other departments. In an innovative world, departments stop becoming silos and work collaboratively.” **Energy consultant**
- “I think it comes down to identifying the threats and opportunities that face the business



to both shape investment against the particular divisions and gauge the potential mitigation magnitude that you need for a particular risk and how that impacts on the organisation operationally and financially. Something about how this is constructed against a portfolio of risks and opportunities would be quite a useful way of seeing into this.” **Energy consultant**

- “I think it’s a wider industry problem in terms of innovation and embedding it into BAU. Across the DNOs, as soon as the projects come to an end, everybody says, well that’s nice, puts a report on the website, then that’s it. Trying to embed it in the day-to-day processes is a bit more complicated. I think it’s moving in the right direction, but I don’t think Ofgem have really got a handle on it.” **Local authority**
- “Ofgem certainly have a role to play. Their priorities and focus are particularly around reliability; the degree to which they focus on other elements compared with innovation and looking forward, for a number of years, hasn’t been there. It’s getting better but we’ve still got a bit of a way to go.” **Local authority**

What other activities should we consider beyond additional resourcing and performance metrics?

- “In moving things forward, we want to allow people to bring forward more net zero carbon solutions more locally, so that they don’t cause a problem for the existing network. That’s where you need to get to in this, because it just looks like a throwaway comment – the metric will be 4 million quid, but it doesn’t mean anything for the local distribution. Everybody needs to part of this solution, not just one organisation.” **Local authority**
- “Maybe some approach where there is continuous engagement with stakeholder groups that are particularly concerned about innovation, because it would steer the course of the innovation ship a little bit.” **Energy consultant**



- “There’s a focus on BAU innovation, I think there needs to be something about ‘business not as usual’. It’s easy to exclude things that could have the biggest impact, albeit with a low probability. A bit of horizon-scanning activity going on to pick up the early signals of something would be good, if only to tell the stakeholder, ‘Actually, we’ve got our eye on this’.” **Energy consultant**

Coordinating innovation delivery and innovation roll-out / BAU innovation will be key. What should be done to achieve this coordination in the best way possible?

- “As much as there’s a self-funded mechanism for delivering projects, there’s a large number of funding streams that you can tap into with collaborative partners, and as far as I can see, in terms of delivering those innovation projects, there’s no reference there. I’ve found it quite challenging to engage with the innovation team at WPD. It’s difficult to get WPD to sit at the table.” **Local authority**
- “We would like to see DNOs engage more with the developers, the consultants, and enable new developments to be offered connections. Often it’s through your connection offer team, who in many cases don’t even know this [innovation team] exists.” **Business customer**

What have you done within your own business to translate innovation projects into BAU? What lessons did you learn?

- “We’re working on a project which has multiple landowners. What we don’t get in the process is an opportunity to look at mitigating some of your use of energy, and I wondered whether WPD had a role, utilising the net zero approach but also their



engagement, to look at innovation and say to people, you could do this, and you wouldn't need to use as much power. More proactive engagement could actually help both sides.” **Local authority**

- “I have to say, this approach is a very engineering mindset. It's very input led, whereas in my experience, innovation comes from a small critical mass of innovative people that don't always fit in, so what some organisations have done is create an innovation cell of out-there people who dare to say brave things. I think one of the aims could be to transform the network to be an agile network.” **Local authority**

What best practice have you seen?

- “There are lots of best practice stories, usually from different industries. Most examples of innovation in grids and generally the energy industry come from start-ups and small companies. The Innovator's Dilemma is a great book which says that where you have finite investment, a dollar invested in BAU is always going to make more return than a dollar invested in innovation. The whole board should read that book.” **Energy consultant**
- “Some boards have a non-executive director with a background in innovation that attends the board and says the uncomfortable things that others can't.” **Energy consultant**
- “The Ministry of Defence has come up with four attributes of agility, which are responsiveness, robustness, flexibility and resilience, and I think it's worth looking at those.” **Local authority**



Workshop Two

Innovation Strategy – Delivering with our stakeholders

Summary

Yiango Mavrocostanti explained that WPD's values of decarbonisation, excellence and value for money would continue to shape the company's projects with a view to driving benefits for customers. In ED2, WPD plans to explore areas such as e-mobility, power electric technologies, energy market development and low-carbon heat, funded through the Network Innovation Allowance and Strategic Innovation Fund. Yiango also explained that through its Calls for Ideas, WPD will continue to actively search for the best ideas and collaborators. To that end, it plans to develop an innovation 'ideas portal' for its website and dedicate time and resource from members of its innovation team to shape promising ideas into projects and make the process accessible to stakeholders lacking experience in this area. WPD has been sharing lessons learned from innovation projects through international platforms such as the International Conference on Electricity Distribution and plans to step up its efforts in this area to make the lessons learned from its work more widely known and applicable.

WPD'S INNOVATION STRATEGY

Stakeholders questioned whether the areas of focus were subject to prioritisation and whether there are quotas for the number of projects per area. Broadly, it was felt that WPD needs to demonstrate how the different areas interlink. For example, vulnerability is

often linked to digital exclusion and therefore should not be considered in isolation. Creating a 'rich picture' would enable the company to identify gaps in its strategy and assess potential risks and opportunities. In addition, stakeholders called for a challenge group within WPD capable of scrutinising the priority areas chosen or rejected. When asked whether anything was missing, attendees suggested network reliability as a potential new area of focus, given the increasing reliance on electricity in all areas of life. Cyber security was also mentioned as a potential new area, although it was felt that this could arguably sit as a subheading under network reliability. Another suggestion was for WPD to introduce an area covering connections to reflect the changing nature of the connections process in ED2 and the resulting need to present customers with innovative ways of connecting to the network. Stakeholders also felt that the transition to DSO should be reflected more clearly, especially as innovation will not happen in silos once network data becomes open, and that WPD must play a part in wider societal change; a reality which, arguably, is not adequately reflected by any of the existing focus areas. As one stakeholder put it, WPD needs to leverage its position as having "the biggest voice and the greatest audience". Attendees therefore called for a whole systems approach across



all the DNOs, with one feeling that this would avoid white elephants and stranded assets and another suggesting that this approach could be used to promote the role of DNOs to customers more widely with a view to encouraging behaviour change around energy consumption.

GENERATING IDEAS AND PARTNERSHIP WORKING

Stakeholders felt that WPD needs processes in place to tap into the good ideas originating from within the organisation and stressed that innovation must be embedded in every department. That said, stakeholders recognised that partnership working is vital given that most innovation will likely happen outside of WPD. Suggested partners included Local Enterprise Partnerships, local councils, start-ups and organisations such as the Energy Innovation Centre. Stakeholders suggested specific initiatives, including partnering with universities to encourage students to solve innovation challenges and participating in open forums with developers in a more transparent process, whereby developers can benefit from advice and guidance from WPD and can subsequently move forward with the confidence to invest in their own innovation projects. In this respect, it was felt that WPD needs to move away from innovation projects sponsored by Ofgem to a process which encourages third-party input. One caveat, however, was that WPD should not commit to partnerships too early, with attendees stressing the need to involve as large a pool of stakeholders as possible in the initial stages.

In general, stakeholders felt that WPD should be much more open and collaborative in its approach to innovation, including by publishing and promoting a list of

innovation challenges facing organisations and asking stakeholders for their help in solving them. In adopting this approach, the company would need to select appropriate communication channels and be very clear on what it wants to achieve so that projects are closely aligned with WPD's innovation requirements. The point was made that while WPD undoubtedly facilitates invaluable expertise sharing among its pool of technical stakeholders, the 'usual suspects' tend to participate in WPD's workshops, suggesting that some stakeholder groups are not being reached or engaged. As a result, WPD is currently lacking the wider picture of people's requirements and an understanding of what 'good innovation' looks like from a market point of view, rather than a purely technical perspective. Ideally, it was felt that WPD could enhance its messaging process to attract all types of stakeholder and take a leadership or facilitatory role in this problem-solving process.

IDEAS PORTAL

When asked to comment on WPD's ideas portal, stakeholders felt that it would be useful for some but not others. The point was made that refining ideas through round-table discussions is a valuable part of the ideas process and should not be neglected, with some stakeholders recalling that discussions with WPD at such events had enabled them to hone their plans and ultimately make a better business case for their ideas. However, it was recognised that stakeholders should be able to put forward ideas at any time, as timescales for different projects in different industries rarely align, so the ideas portal would be useful in the interim.

It was suggested that the portal should be open to all initially, with a focus on general



ideas and a structured process in place for moving ideas on to development phases. This was felt to be important because the stakeholders with the best ideas may not always possess a high level of relevant technical knowledge, meaning that WPD must democratise the process to avoid blocking innovation. Another suggestion was for a hybrid approach in which WPD runs forums that are open to anyone in addition to scheduled forums that require pre-registration, as a way of gathering ideas for the portal. One stakeholder envisaged the portal as a portfolio of projects which investors could review, select and invest in. It was felt that WPD needs to find a way of promoting the portal so that key innovators, such as those from prestigious universities, can see the value in contributing to it.

internationally’ entailed promotion or collaboration. There was consensus that it is important to focus on global trends happening beyond the UK, and that WPD should explore both successful and less successful examples of innovation to truly get a feel for industry best practice and the potential pitfalls of innovation projects. The suggestion was made that WPD could home in on DNOs facing similar issues in different countries. As for WPD’s ambition to ‘establish the trends on how the energy system changes internationally’, it was commented that WPD needs to recognise the balance between collaborating internationally and focusing on its own internal priorities. Again, the point was made that WPD cannot achieve this objective in isolation, and that it would only be effective with joined-up thinking.

LEADING INNOVATION INTERNATIONALLY

Attendees called for greater detail in this area, in particular, on whether ‘leading

Stakeholder Feedback

ED2 Innovation Strategy Overview

The areas we will explore and why

- Decarbonisation
- Communities and Consumer Vulnerability
- Energy Efficiency
- Behavioural Analysis and Probabilistic Planning
- Energy Market Development
- Power Electronic Technologies
- E-mobility
- Digitalisation
- Low Carbon Heat

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1. Are we covering the right areas in ED2 and if not, what is missing?

- “I’m not sure where DSO evolution fits in. That’s hugely important and should be right at the front.” **Business customer**
- “I got depressed by the presentation. It reminded me of our school system where we remove creativity from kids. Things like having calls on specific themes and meeting those requirements. The process seems to be clunky and squeezing out creativity. The desire to get your presence and interest in innovation known was the only glimmer of hope.” **Trade association**
- “As reference points they’re OK, but I think there’s some value to be had if you can relate these points to what we call a ‘rich picture’ – in other words, how they relate to one another and interact. We could look at how existing innovation projects relate to that rich picture, thereby possibly identifying gaps and opportunities or threats that need to be addressed.” **Energy consultant**
- “Are the areas in this list being prioritised? If so, what’s the order?” **Energy consultant**
- “Does WPD see itself playing a part in the wider social and economic transformation within a geographical area, and where does that fit into this innovation list? It needs to work with partners. That doesn’t really come under communities, because different modes of governance and institutional models are needed to bring about transformation in ways that are socially optimal.” **Energy consultant**
- “We talked about the consumption profiles, but what about the connection? I know WPD have worked on different types of connections, but I think that needs further development, especially with electric vehicles and heat pumps. I think there need to be new ways or new types of connections being offered which aren’t currently being made available.” **Business customer**
- “I think it comes down to reliability and it’s under that sort of heading, but a specific area, which is cyber security. I think there’s a major threat and not just to WPD. We want to share all data with third parties and so on, but we also need to keep that data secure. There should be innovation in cyber security as a specific area.” **Storage and renewables provider / installer**



- “Encompassing that is a challenge, and one of the key issues is regulation. On there, should it be that you can become that front and voice for developers and individuals who want to challenge part of the regulation? It’s a huge challenge for community energy. You have the biggest voice and the greatest audience.” **Business customer**
- “If you’re thinking about how to avoid creating white elephants or stranded assets, these are the sorts of things where you need to be quite canny about how you bring things together. As you move forward into this DSO stage, you need a collegiate approach with other utility companies, to provide that whole picture. When we’re changing hearts and minds, these sorts of things where you fill in the gaps will be quite important.” **Local authority**
- “I would just add in reliability. We’re so dependent on electricity in every aspect of our lives, whether it’s digital transactions or otherwise, we need our electricity and reliability needs to be in there.” **Business customer**
- “You’re talking about BAU innovation, does that stifle things too? Shouldn’t it just be innovation? So, engage with as many people as possible and don’t put restrictions on it.” **Trade association**
- “The game we’re trying to do as a DSO requires maximum flexibility, which means as much diversity as possible. So, if new developers are building a wall round their network, that diversity is more difficult to share. The solution is virtual private wires, where there’s one public network but people can have private arrangements and society is getting the benefit of diversity. There’s an overarching topic which may be embedded, but it needs a bold vision.” **Energy consultant**



2. What more can we do to generate great ideas and identify the best people to collaborate with?

- “There is opportunity to sponsor more university projects and to collaborate with other providers to discuss how other networks are working.” **Energy consultant**
- “Rather than coming from WPD itself, having open forums would be great.” **Developer**
- “It may be that you haven’t got a pot to deal with an innovation project, but you can say to the developer, we’ll have to innovate, you’ll have to pump your own money in, and we’ll come in as a partner maybe and put some of our own money in. With some projects, the developers have the money to fund the innovation. Limiting yourself to doing innovation projects funded by the Ofgem allowance is not the right approach.”
Local authority
- “Is there scope for moving beyond the call for ideas and engaging with the Energy Innovation Centre on innovation projects when looking to generate ideas? It could be a good filter for innovation projects that span all utility industries.” **Energy consultant**
- “Great innovation ideas coming from internal staff is why innovation should be embedded within every department, so that everyone is always thinking about making innovation BAU.” **Environmental group**
- “It would be good for WPD to publish a list of problems that other stakeholders are facing, and others can find a way to solve them.” **Environmental group**
- “I like the idea of WPD acting as a conduit to bring people from different sectors together to brainstorm various solutions to different problems. The process can be really motivating, as you are working with people that you don’t normally work with.”
Energy consultant
- “I think one of the challenges here is engagement. Maybe the mediums through which we engage stakeholders are not the right ones because they’re just not getting the visibility of the other community parties that could participate. Maybe a result of going out through industry media is that we keep getting the same usual suspects of suppliers and investors and battery owners involved as well.” **Energy consultant**



Do you support WPD's proposal to set up an ideas portal? How do you think this should work?

- “I’ve been involved in innovation processes that predominantly involved multiple stakeholders sitting round a table and discussing a particular project and developing ideas in that way. This process doesn’t lend itself to that kind of solution, and quite often for me, that has been the most valuable time. If this is the only route that’s going to be there, WPD are not going to be sat round the table.” **Local authority**
- “If you’re asking for ideas, intellectual property immediately comes to mind. It’s very easy to give ideas away and all of a sudden you realise you’ve just given away the family silver. I think there’s something here to do with commerciality as well as stakeholder engagement. This is not pure academic research; this is research with pound note consequences.” **Energy consultant**
- “You almost need some signposting, so that people have got those forums that come up with the general ideas and then the ones that have an innovation benefit can be signposted to something that has more of a structured approach that will take it to the next stage.” **Local authority**
- “We need to be mindful that those people coming forward may not have the same sort of technical knowledge, but we’re trying to open it up and democratise it because in the future, what happens behind the meter is something that’s happening for areas. We’ve seen that in the banking sector, we’ve seen that in the mobile technology and entertainment sectors, so people are expecting those kinds of opportunities and we need to catch up with those expectations.” **Local authority**
- “A hybrid system between one that’s open to anyone who wants to participate and a forum like this where people actually engage and commit to attend would be a much better way forward. I don’t think we should be saying no to ideas from the public, even those who are not technically minded, because they might be able to relay a problem.” **Storage and renewables provider / installer**
- “Having that resource to help groups that don’t know the process is definitely crucial. Making a business case can be difficult, so having someone there to help you think



that through is very important. When we were planning a project, we had support from someone from WPD who made us rethink our idea and that was really helpful. Having the ability to put forward ideas at any time is really good for us too, as our project cycles don't necessarily follow your cycles." **Environmental group**

- "It would be good to have portfolio management, for example, selecting a portfolio of projects to invest in." **Local authority**

How should WPD promote its 'Call for Ideas'?

- "We also take part in the national call for innovation, and the Energy Networks Association will have a collaboration portal, which we all as DNOs review. So, we all end up doing the same things, some more successfully. Ideas don't always translate because our networks are different, but sharing always helps." **Utility**
- "That sounds like a good idea. Personally, I like contact, and building the relationship there, because you end up knowing what's going to run. So, a mix of both, really. So, you're open to those ideas, and it sounds as though you are." **Academic institution**
- "WPD has the list of stakeholders from this event. A good start would be contacting them." **Energy consultant**

Have you participated before – what worked well, what didn't work well?

- "We've been through a few Calls for Ideas. The process is straightforward, but it takes a long time to get through to the end and there isn't a great deal of transparency about any delays. That makes it hard for us to plan." **Energy consultant**



3. Do you agree that we should seek to lead innovation internationally?

- “Is it promotion of what is going on, or is it collaboration internationally? Because we have to create everything anew, and so I wonder if there’s some focus or goal to collaborate abroad.” **Developer**
- “Digital grids, micro-grids, there’s so much going on that we believe we can learn from. And so that provides another layer of network security. I don’t see that included in this.” **Developer**
- “And where the big topics exist globally, including micro-grids, can be a threat to DNOs. And that independence is where the industry is going. So not only focusing on the UK, but what’s happening abroad.” **Developer**
- “I’m neutral on this one. You could do, but it’s not critical.” **Local authority**
- “I’m not sure. You always tend to have a conflict between promoting yourself internationally and effectively rolling out the innovation within your organisation. You can’t lose sight of the latter.” **Energy consultant**
- “It could be useful if you took charge on both the positive and the negative experiences, so that best practices could be improved across the board.” **Energy consultant**
- “There are other DSOs that are facing similar issues in different countries. Are there any partnership opportunities for learning?” **Energy consultant**



WPD's ambition is to 'establish the trends on how the energy system changes internationally'. Do you think this is a good use of customer money?

- “I do some work internationally in terms of utilities across the world, what we do in the UK is well ahead of everyone else. There is certainly stuff to take, but we do need to get our own house in order first.” **Business customer**
- “You need joined-up thinking to be convincing on that front.” **Energy consultant**



Appendix 1

Attendees

52 attendees from 46 organisations attended the workshop. The organisations are shown below.

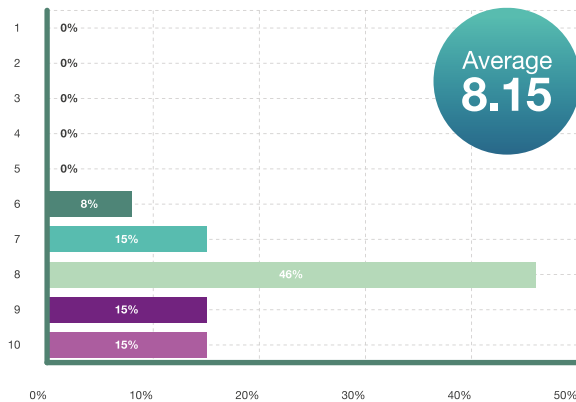
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Carmarthenshire Energy	NMITE
Genex	North Devon Council
Centre for Sustainable Energy	Prysmian Group
Chacewater Community Energy Group	PSC Consulting
Cherwell District Council	PyroGenesys Ltd
Community Energy Plus	Siemens
Cornwall Council	Smart Grid Consultancy Ltd
Coventry City Council	SmartKlub
Cranfield University	SMS Energy Services Ltd
Electricity North West	Solar PV Partners Ltd
Energy Systems Catapult	Solihull Council
Everoze	Somerset County Council
Federation of Small Businesses	The Open University
Fundamentals Ltd	The Schumacher Institute
Harborough District Council	University of Birmingham
Hitachi Europe Ltd	University of Warwick
Hoare Lea	Wattify Limited
IVHM Centre	Wolverton Community Energy
Joint Radio Company	Yealm Community Energy Ltd
Kirklington Parish Council	
Lincolnshire County Council	
Long Ashton Parish Council	
Lucy Electric	
Major Energy Users' Council	
Newent Town Council	



Appendix 2 Workshop feedback

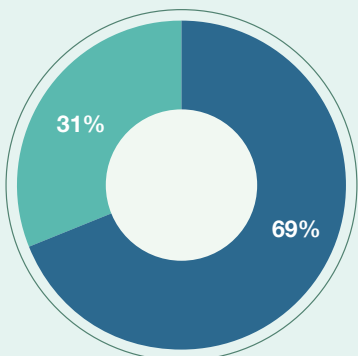
After the workshop, stakeholders were asked to complete a short feedback form. The feedback was as follows:

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



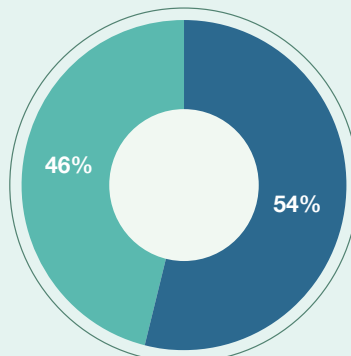
“ Interaction was very good. ”

Overall, did you find this workshop to be:



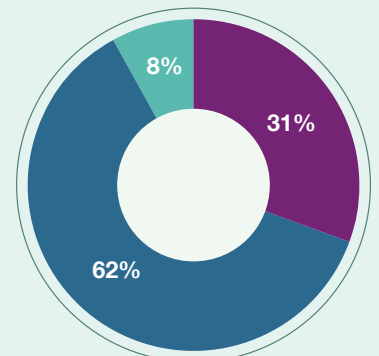
Very interesting
Interesting
Neutral
Not that interesting
Not interesting at all

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



Strongly agree
Agree
Neutral
Disagree
Strongly disagree

Did we cover the right topics for you on the day?

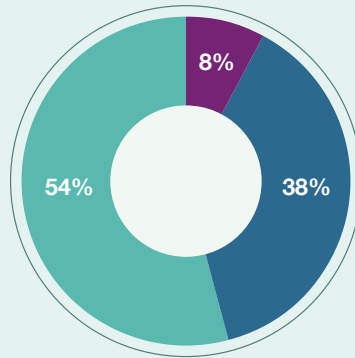


Strongly agree
Agree
Neutral
Disagree
Strongly disagree



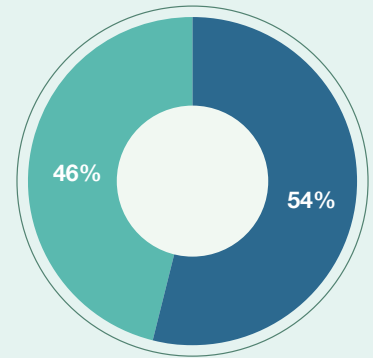
“Right level of info and ambition to be worthwhile.”

What did you think of the way the workshop was chaired by your facilitator?



Very good
Good
Neutral
Poor
Very poor

How well do you think the online format worked?



Very well
Well
Neutral
Not well
Not well at all

Comments

- “WPD decided clear questions in advance for breakouts, helped to focus and give input.”
- “Keeping to time (always hard) and strong inclusion chairing in the breakouts.”
- “Fast paced, friendly environment.”
- “Interaction was very good.”



Any other comments?

- “Interesting how, within a very short time, the breakout group developed a sense of common purpose and respect. The value of the self-selecting nature of attending should be captured by perhaps enabling an eco-system of energy systems innovation stakeholders.”
- “Innovation is a tough topic for a regulated corporate, so good luck!”



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