



The future of our electricity network:
communities consultation

Results and feedback

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Table of abbreviations

API	Application Programming Interface
BEIS	Department for Business, Energy and Industrial Strategy
DER	Distributed Energy Resource
DNO	Distribution Network Operator
DSO	Distribution System Operator
ESO	Electricity System Operator
kW	Kilowatts
MW	Megawatts
WPD	Western Power Distribution

Background

Western Power Distribution (WPD) carried out a consultation with community energy organisations and local energy stakeholders, in August and September 2018, on the future of our electricity network and the shift to a Distribution System Operator (DSO). This report summarises the consultation responses and feedback received and sets out the actions WPD will take as a result.

WPD will use the information gathered to refine the implementation of the DSO strategy, understand where the gaps are and shape future community engagement. The feedback will also contribute to the design and development of flexibility products and enable WPD to identify whether a tailored offering is necessary for communities to ensure they can access the market.

Our energy landscape is evolving at a rapid pace and communities will play an increasingly important role in this. Through our ongoing work with community groups we know that they have a huge contribution to make and that the more WPD can do as a network and system operator to raise understanding and increase participation, the better the outcomes will be for all of us.

Alison Sleightholm, Resources and External Affairs Director, Western Power Distribution

Methodology

WPD produced a [consultation paper](#) to support community energy organisations to develop knowledge about our changing energy system and encourage informed participation in the shift from Distribution Network Operator (DNO) to DSO and flexibility markets. This consultation paper was published alongside an online questionnaire, which was open to respondents for four weeks between 10/8/18 and 7/9/18, and invited feedback on what matters most to community energy groups and local energy stakeholders. Respondents who did not want to complete the questionnaire online were invited to respond via a phone interview or paper copy.

How WPD will use the feedback received

WPD will use the results of the consultation to:

- Inform WPD's ongoing engagement and capacity building support for community and local energy stakeholders going forward
- Inform future network planning
- Refine the implementation of the DSO transition strategy and ensure WPD's vision for DSO is aligned with the needs of customers and stakeholders

WPD is listening, and this consultation is just one of the ways we are inviting and supporting less well-resourced stakeholders to engage with us. WPD has also held workshops on DSO and flexibility for community and local energy stakeholders in each of our licence areas. By publishing the feedback and responses to this consultation, and the actions we will take as a result, we hope to encourage more community energy organisations and local energy stakeholders to join the ongoing conversation with us. We will continue listening to our customers to provide the best service we can.

WPD would like to thank everyone who responded to this consultation.



Picture 2. WPD Flexibility Markets for Beginners workshop, Birmingham, July 2018

Overview of responses and results

Number of responses

There were 49 responses to this consultation, 36 of these were complete and 13 were partially complete. This is a significant response from a sector that has to date found it difficult to engage in the complexity of the transition to DSO. The key to obtaining a strong response was providing a detailed supporting document with explanations and background information, active promotion of the consultation through Regen's networks and being open to talk respondents through any questions they had over the phone.

Most of the 13 respondents that started but didn't complete the document filled in personal details and stopped at question nine. These respondents said they didn't have time and the questionnaire was too long, some respondents felt they lacked the necessary knowledge and experience to answer the questions, especially those outside of WPD's licence area, who felt the consultation was not relevant to them.

Results

The responses to this consultation clearly demonstrate that communities and local energy stakeholders want to be involved in the DSO transition and flexibility, but that respondents are at an early stage and need more support to participate.

There are some consistent messages for WPD:

- **Engage early and involve communities in strategic decisions**, respondents showed a real desire to work collaboratively with WPD at the strategic stage to ensure the principles of local energy economies are aligned with the DSO transition
- **Decarbonisation is a priority for communities and local energy stakeholders**, who care about climate change and want to see a future electricity system that is low carbon
- **The views and feedback from local and community energy stakeholders should be more visible to the government and Ofgem**, communities want to be able to influence decision makers to enable a fairer and more democratic energy system
- **Access to WPD's technical expertise and knowledge**, to enable communities to participate, build their capacity and work more effectively together
- **Support communities to understand the business model for flexibility**, and support to understand and work with aggregators
- **The tools we have developed to signpost flexibility needs are well received**, we need to publicise these more and continue to review these to ensure they are as clear as possible
- **Use plain English**, avoid jargon and where possible explain and simplify messaging
- **Continue to focus on face-to-face interaction and enabling dialogue with WPD**, including training/workshops and capacity building support
- **More written communications, examples and videos to explain complex information**, such as the detail of the flexible power tendering process



Picture 3. WPD Flexibility Markets for Beginners event, Cardiff, July 2018

Consultation Section 1 Results:

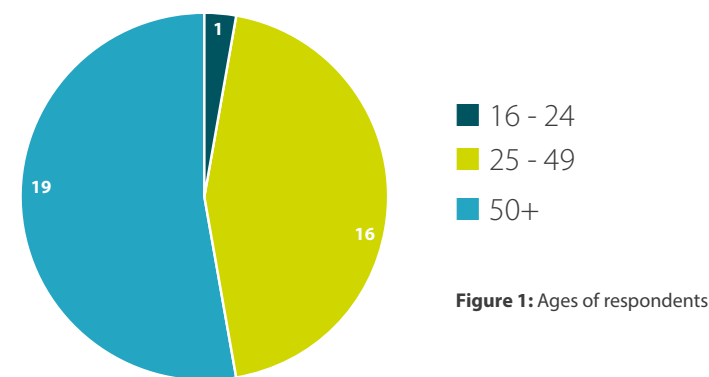
About the respondents

Questions 1 and 2

The first two questions asked respondents for their name and which organisation or community group they were representing. Over half of the participants were from community organisations, the rest were from companies, consultants and local energy stakeholders.

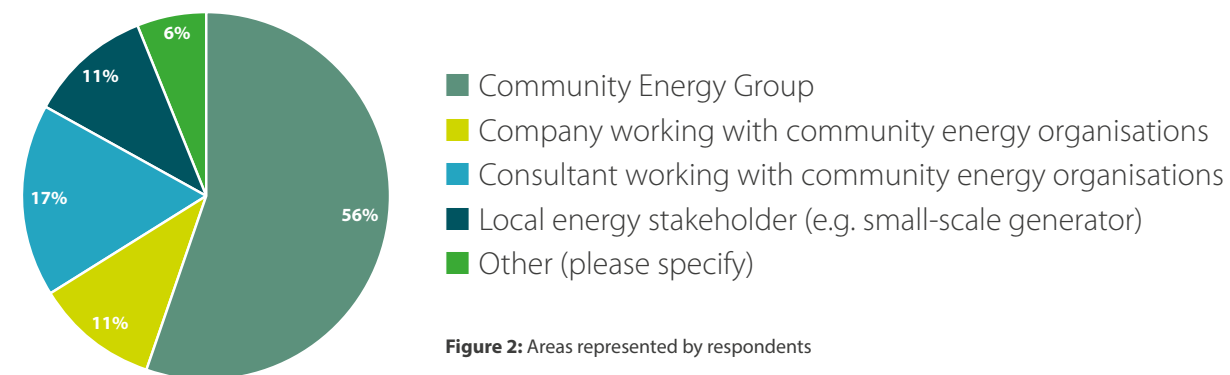
Question 3 – Age Range

Out of the 36 respondents who completed this question, 19 were 50 years old or over, 16 were between 25 and 49 years old, and one respondent was between 16-24.



Question 4 – Main area you represent

The majority of the 36 respondents to this question (20) represented community energy groups. There was also strong representation from consultants working with community energy groups.



Questions 5 to 8

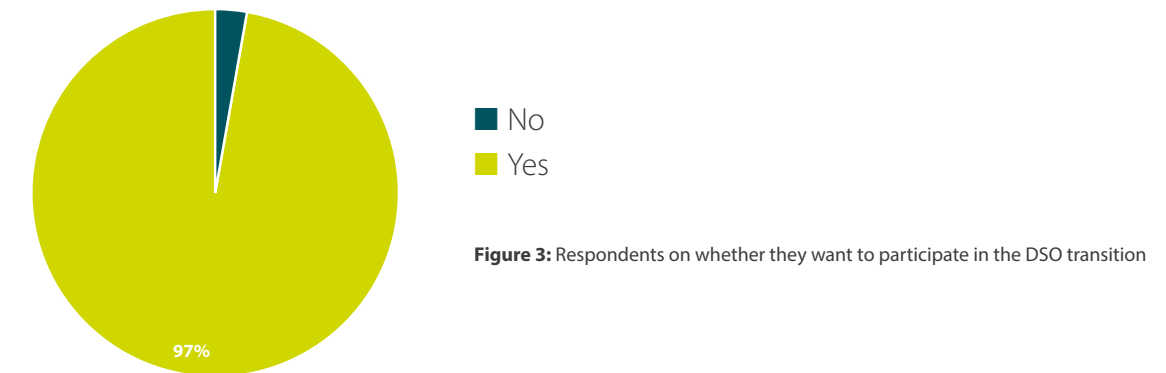
Questions 5 to 8 covered contact details and data protection questions on whether respondents would like to hear from WPD and Regen about the results of the consultation and future events which may be relevant to them.

Consultation Section 2 Results:

WPD's DSO principles

Question 9 – Do you want to participate in the transition to DSO?

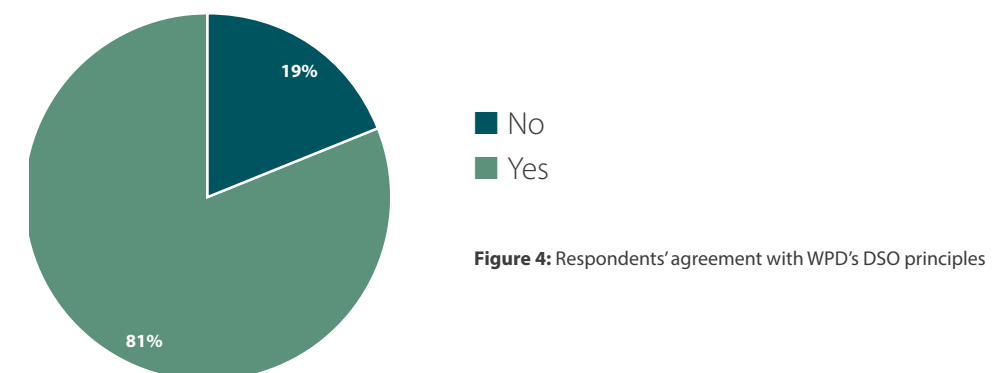
A majority of respondents, 35 out of 36, answered 'yes', they do want to participate in the transition to DSO. This feedback indicates that WPD has communicated effectively what the transition to DSO means and engaged local and community energy stakeholders to encourage them to participate.



Question 10 – How do you want to participate, and which areas are of most interest?

Local energy was a key area of interest for many of the 36 respondents to this question and is central to how they see their involvement in the DNO to DSO transition. Responses focused on local generation and supply, enabled by technology such as domestic batteries, electric vehicles and the flexibility services which this technology will enable them to provide to the local network. Communities and local energy stakeholders see value in the energy they use being generated and supplied locally, and understand the benefits this could provide to help balance supply and demand and reduce power flows on the electricity network.

Question 11 – Are these principles correct?



Consultation Section 3 Results:

▶ Flexibility services

In the consultation WPD set out 12 guiding principles for the DSO transition. There were 36 responses to this question, 29 agreeing with our principles, suggesting that they cover a wide range of issues important to community groups and local energy stakeholders. Of the seven respondents who disagreed with these principles, responses centred on climate change and decarbonisation, specifically the role of DSOs in the UK achieving an 80% reduction in emissions by 2050. Broader environmental and social benefits are also cited by respondents, but there is a clear theme of WPD having a duty in achieving a zero-carbon future.

Question 12 – Is there anything missing?

The 28 responses to this question largely followed the themes raised in Question 11. Again, there was a focus on the need to promote low carbon generation, as well as locally-generated energy. The needs of future consumers were also mentioned, especially in relation to climate change. Sharing benefits from the transition to DSO was another important principle for WPD to include as well as open data.

Question 13 – Do you have enough information about alternative connection solutions?

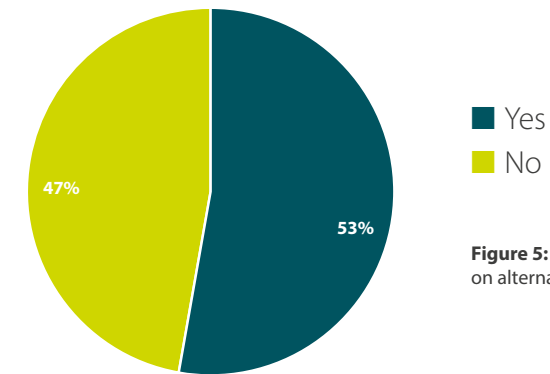


Figure 5: Respondents' answers on whether they have enough information on alternative connections

There were 34 responses to this question, with 18 respondents saying that they have enough information about alternative connection solutions and 16 feeling that they did not.

Question 14 – If not, what information do you need?

There were 19 responses to this question. Many respondents felt that they needed more clarity and explanation of these alternative connection solutions, particularly for communities with limited technical understanding. Case studies and real-life examples would also be helpful.

Question 15 – Are you considering, or have you applied for, an alternative connection?

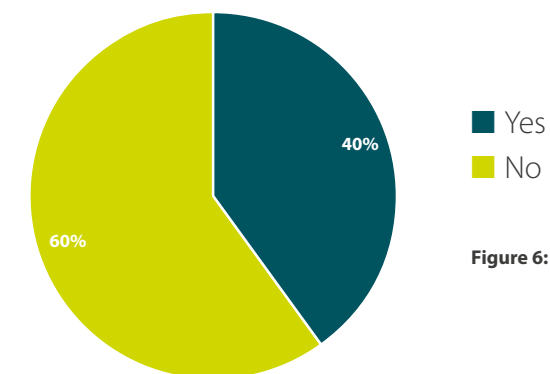


Figure 6: Respondents who have applied for an alternative connection

There were 35 responses to this question, with 14 having applied for an alternative connection or considering it, and 21 not. Of the 14 respondents interested in an alternative connection, many said that it could be of use where export was limited or needed to be managed, while some felt they need more guidance.

Question 16 – What could WPD do to make the process of applying for an alternative connection easier for you?

There were 24 responses to this question, with respondents asking for more dialogue with WPD, clear definitions and explanations, and more widely available alternative connections.

Question 17 – Did you know the Network Capacity and Flexibility map tools were available?

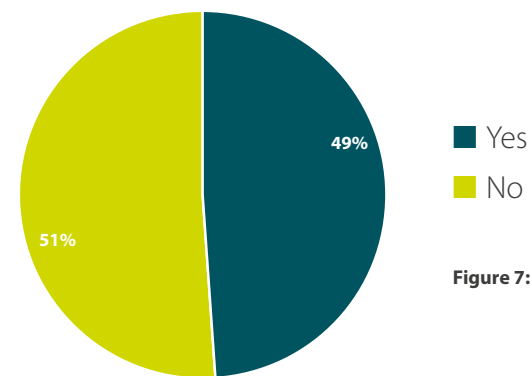


Figure 7: Did respondents know about the Network Capacity and Flexibility map tools?

Of the 35 respondents to this question, 18 knew that the network capacity and flexibility map tools were available, 17 did not.

Question 18 – Have you used either of them?

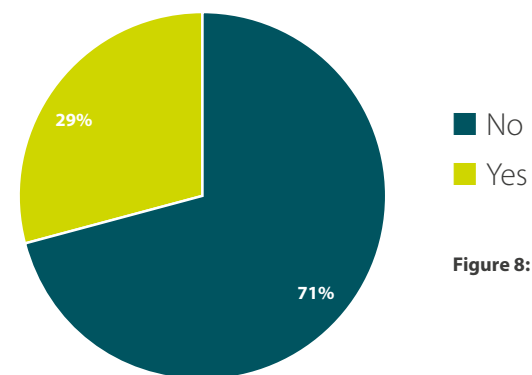


Figure 8: Have respondents used the Network Capacity and Flexibility map tools?

Only 10 of the 35 respondents to this question had used either of these tools. Of these 10 respondents, many were curious to find out about the network capacity and flexibility required in their local area when considering potential future projects, and largely found the tools useful for this, although more details on the types of flexibility required would be helpful.

Question 19 – Will you use them now?

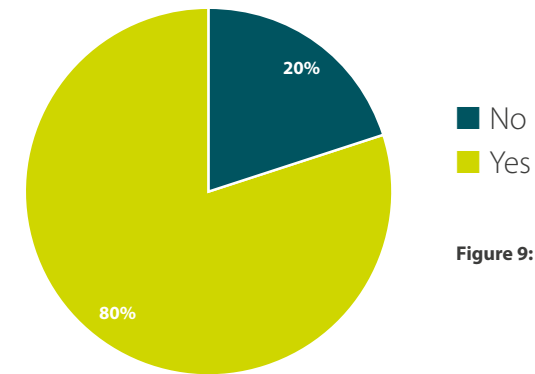


Figure 9: Will respondents use the Network Capacity and Flexibility map tools now?

Of the 35 respondents to this question, 28 said that they will use these tools now, seven said they wouldn't. It is encouraging to see that the consultation has had a positive effect on community energy knowledge of the tools available and that, once people are aware of these tools and what they can be used for, they are much more inclined to use them.

Question 20 – Do you have any feedback on these online tools?

There were 29 responses to this question, with feedback suggesting that whilst the Network Capacity and Flexibility map tools are useful, they could give more accurate information for local cases, and should only supplement discussions rather than replace them. A similar tool showing all DNOs was also suggested, as well as an Application Programming Interface (API) so that the tool can be used on multiple platforms.

Question 21 – Are you interested in providing flexibility services to help balance the network?

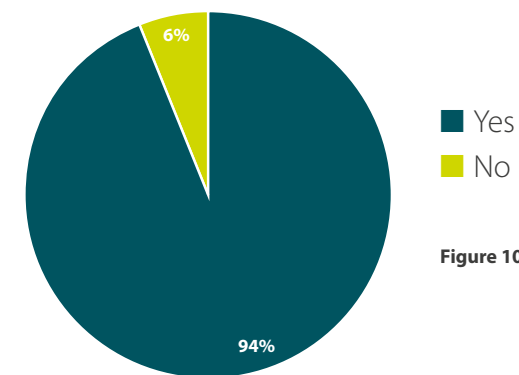


Figure 10: Respondents' interest in providing flexibility services to help balance the network

Out of 36 respondents to this question, 34 said 'yes', they are interested in providing flexibility services to help balance the network. There is clearly strong interest in providing flexibility services from this stakeholder group.

Question 22 – How much controllable demand/generation/storage do you or your organisation manage or have access to? Please state kW and/or kWh per annum.

The 34 responses to this question showed the wide range of energy assets managed by respondents. Some organisations do not currently manage any assets, others are in the planning and application stage. Most commonly, organisations have 100-500 kW of installed capacity, which they have varying degrees of control over. The greatest generation capacity stated was over 30 MW. Ownership of storage assets is still limited but developing.

Question 23 – Do you or your organisation have any electricity storage? Please state the storage power rating (MW/ kW) and capacity (MWh/kWh)?

There were 32 respondents to this question of which nine have some electricity storage, often the domestic scale storage of their members and local residents. Many others are planning to develop storage soon. Of those that currently have storage assets, their capacity ranged from 400 kW to 5 MW. The interest in storage assets among local and community energy stakeholders is a notable finding of this consultation.

Question 24 – How should WPD facilitate neutral markets that will enable a level playing field for community and local energy stakeholders to participate?

The 32 responses to this question focused mainly on the need for WPD to be more inclusive of small-scale generation, through community aggregation and local supply business models, along with increased face-to-face engagement with communities, additional support, and to recognise that communities need more lead time than commercial organisations. The German model, where their DNO equivalents give community organisations priority over private companies in accessing the grid, is also cited as something for WPD to consider.

Question 25 – Is there anything that would stop you being able to provide flexible power to WPD?

There were 33 responses to this question, following similar themes to question 24. The main concern is that it may not be financially viable for small-scale community organisations, as the lack of a business case and guaranteed income for local flexibility means they cannot invest in required technologies such as battery storage. There were also concerns about the lack of technical knowledge that communities have access to and the length of flexibility services contracts being unsuitable as they would require more long-term certainty to raise local investment.

Question 26 – What can WPD do to help remove barriers that might prevent you participating in flexibility markets?

There were 32 responses to this question, which followed themes similar to the previous question. Respondents want clear information on emerging areas such as flexibility markets, and continued opportunities for face-to-face engagement such as the workshops that Regen has run on behalf of WPD. Respondents also suggested WPD facilitate discussions between commercial energy suppliers and communities to develop suitable tariffs and arrangements for domestic flexibility.

Question 27 – Would you like to be able to provide services to both the national Electricity System Operator as well as the local Distribution System Operator?

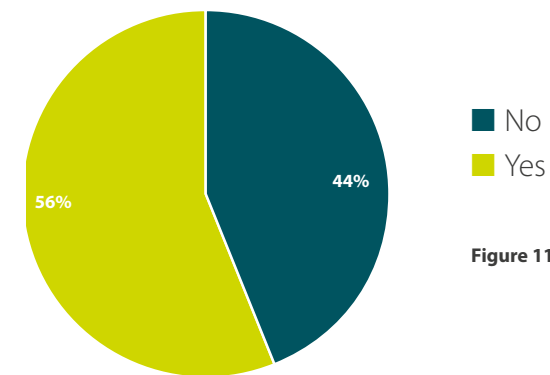


Figure 11: Do respondents want to provide flexibility services to the ESO and DSO?

A majority, 20 of the 36 respondents to this question, said they would like to provide services to both the Electricity System Operator (ESO) and the DSO. The results back up the need for the DSO to coordinate with the ESO in procuring flexibility services. It is notable that a significant minority of these stakeholders expect that flexible power from community and domestic-level flexibility providers will be provided through DSOs.

Question 28 – What do you need to make this easy for you, and are there any barriers that would prevent you stacking services?

From the 25 responses to this question, it is clear that community groups need more information to help them understand how they could stack services from Distributed Energy Resource (DER) assets and earn revenue by providing services to the DSO, ESO and potentially other market actors. Feedback suggests that stacking services is quite a leap from where communities currently are with providing flexibility services. The concept of stacking services is either too complex for community organisations or is something they have not yet considered.

Question 29 – Is there a different way we could describe these services to make it easier for communities to engage?

The 32 responses to this question on how clear the tendering process for flexible power is were hugely varied, eight people said no, or the description is clear, and three didn't know. Two wanted more plain English, and others suggested more networking, support to engage, diagrams, animations, videos, training and dialogue with communities. Two people suggested getting an energy communications specialist or social scientist to look at clearer presentation.

Question 30 – Is this table clear?

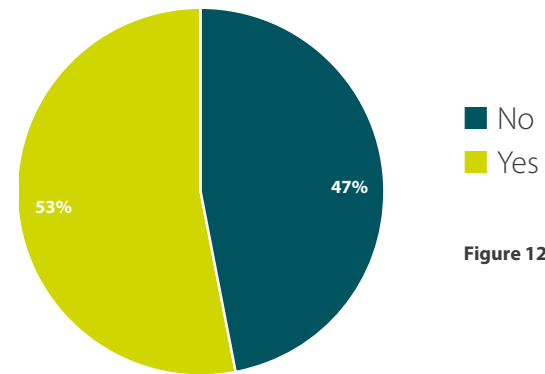


Figure 12: Respondents' views on whether the Flexible Power table is clear

Nearly half the respondents thought the example table of requirement windows for flexible power set out in the consultation was not as clear as it could be. Six respondents said more explanation and examples are needed, while seven said the terms like 'arming' are not defined and WPD should use plain English for a community audience. Three suggested using explanatory videos, and a few suggested a smarter user interface.

Question 31 – Is there anything missing?

There were 34 responses to this question, 17 thought nothing was missing, five people said clear definitions and explanations of the terms was needed, others said plain English, a key, pricing, capacity requirements, and signposting were missing.

Question 32 – Is there a different way we could present this to make it more useful?

There were 23 responses to this question, three people said it was clear, five suggested the use of plain English, three suggested charts, questionnaires and tools for communities to input their data and identify what the best options are for them. Overall the responses to how we present the tendering process for flexible power vary. Whilst many people do find it clear, there is feedback that there could be less technical jargon and there is a need for more supporting material to explain terms used.

Question 33 – Is this map clear?

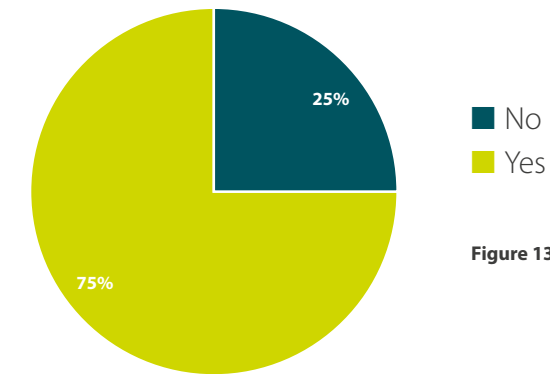


Figure 13: Respondents' views on whether the Flexible Power map is clear

The consultation presented an example map showing the boundaries of an area WPD are procuring flexibility services in. A majority of respondents, 27 out of 36, thought the map was clear. The nine who said it wasn't mentioned the key, suggested a layer to show the network, and noted confusion over the boundary and whether some villages on the border are in or out of the constraint area.

Question 34 – Is there anything missing from the map?

Most respondents, 22 out of 33, said nothing was missing. The remainder suggested a key, interactive interface (scroll/zoom), substation locations and details of connectivity options/connection points.

Question 35 – Is this diagram clear?

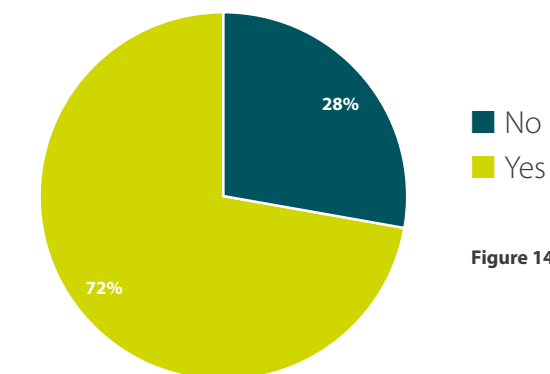


Figure 14: Responses on whether the Flexible Power diagram is clear

An example graph was provided in the consultation showing when, how often and how much flexible power is required. Most people, 26 out of 36, thought this diagram was clear. The people who felt it wasn't clear suggested better visual representation and differentiation of each month, as well as simple explanations.

Question 36 – Is there anything missing?

Most respondents, 23 out of 32, said there was nothing missing. Nine people commented on things they wanted to be included such as explanations, or support to understand what it means.

Question 37 – Is there a different way we could present this to make it more useful?

There were 23 responses to this question, eight people said that they couldn't think of a way to present it more effectively, two were not sure, 13 felt that there were better ways of presenting the information. Some commented that signposting, clarity, simplification, individual months in contrasting colours and narrative could make it more useful.

Question 38 – How long would you need a contract to be for you to participate in flexibility markets?

Out of the 32 responses a five-year contract was the most popular option, seven people said five years, three said between two and five years, and five people said two years. Three people wanted a year minimum and another three people said they wanted a 10-year contract, two said 20 years or as long as possible. Three people were not sure or asked questions about the terms of the contract.

Question 39 – To enable greater participation WPD has not set a minimum entry threshold but anticipate around 100 kW of flexibility and upwards being a viable amount. Do you have a view on entry thresholds?

Responses to this question indicate that no minimum threshold for flexibility services is the correct approach, 12 out of 36 respondents said this was a fair approach, five commented that the lower the threshold the better, and eight respondents said communities will need to aggregate because their projects tend to be smaller. Five people didn't have a view on thresholds. Some people misinterpreted the question as WPD setting a threshold of 100kW and six participants said around 50kW would be a better threshold for communities.

Question 40 – Is this table clear?

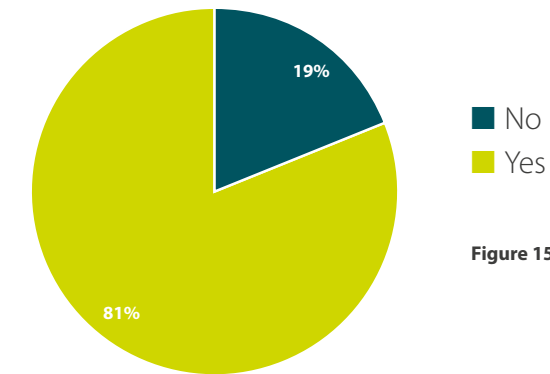


Figure 15: Responses on how clear the Flexible Power payment rate table is

A table of payment rates for flexibility was provided in the consultation. Most respondents said this was clear.

Question 41 – Is there anything missing?

Just under half, 15 of the 33 respondents said 'no', there is nothing missing. There were 18 comments suggesting additional information to make the table clearer and more user friendly, including explaining the terms 'arming', 'availability' and 'utilisation' as well as the different payment rates and examples.

Question 42 – Is there a different way we could present this to make it more useful?

Ten out of 33 responses suggested using plain English to simplify and add clarity. Other suggestions included more explanation, narrative, flow charts and graphs, a better dashboard, and examples to make it clearer and more user-friendly. Two people pointed out that the conversations with communities to make them aware and explain are as important as the table.

Question 43 – There are no penalties if someone does not deliver the amount of flexibility they said they would. Instead it's a sliding scale of reduced payment or no payment. Do you have a view about this approach?

A majority of respondents, 18 out of 32, felt this was fair and agreed that this is a good and reasonable approach. Some raised concerns about unintended consequences and if there would be an appeal process for extraordinary events, as well as some more nuanced responses below. Only one respondent said it wouldn't work.

Summary

Question 44 – Flexible power contracts will require minute-by-minute metering. Will you be able to provide that if you decide to participate, or do you have another solution?

Around half, 17 of the 35 respondents, said they could provide minute-by-minute metering data for some or all their sites, with the right funding and technical support. Many of the respondents listed barriers including communication signals being unreliable, cost, technical expertise, and hardware limitations. There was a lot of confusion about smart meters and why they are not sufficient. Seven participants said they didn't know or N/A. Four participants said they would not be able to provide this data.

Question 45 – How would you like WPD to engage with you in future?

There were 36 responses on future engagement. A majority of participants (17) wanted more workshop events and training, to continue having constructive face-to-face conversations with WPD, including with the dedicated communities representative on the innovation team, senior staff and local network planners. Email newsletters and updates were also popular with 14 responses, four people wanted WPD to continue with current engagement and three specifically wanted this to be delivered through Regen. Two respondents wanted WPD to lobby BEIS and Ofgem, two wanted more information on the WPD website, and two wanted to communicate through WPD's dedicated communities representative. Online consultations, guides, videos, and supporting a community learning network were all requested once.

Question 46 – Is there anything else you want to talk to WPD about?

There were 15 responses to this question mainly focussed on the need for more communication, open dialogue and partnership working involving communities and local authorities. Respondents wanted more face-to-face events delivered in a community friendly manner and more opportunities to talk to WPD about long-term strategic planning including new housing and innovation ideas. Some responses requested more proactive and holistic engagement and support to collectively identify new opportunities around renewables, energy efficiency, and local supply to help build greater network resilience. There was also a request for more data sharing and more projects like Open LV that involve communities.

It is clear from the number and quality of responses to this consultation that communities and local energy stakeholders want to be involved in our changing energy system and more specifically in the DSO transition and emerging flexibility markets. The scale of interest is striking but most respondents are at an early stage. Evidence provided in this consultation highlights the ongoing challenges for communities who lack time, resource and expertise to engage. Therefore, communities need additional support to level the playing field and ensure they are not disadvantaged when competing in open markets with commercial and industrial stakeholders.

Following on from this consultation, WPD will continue working with community energy groups and other local energy stakeholders to ensure they can participate in the DSO transition. Early engagement is key to this, so that DSO principles can be aligned with core principles of community energy, allowing closer collaboration between community energy groups and WPD. This is especially the case for decarbonisation, a key driver of local energy, and a priority that could be higher on the DSO agenda. Communities and stakeholders who responded to this consultation are asking for decarbonisation to be at the heart of the transition to DSO.

Communities and local energy stakeholders have limited capacity to engage and influence regulation and policy themselves; they have also highlighted the power imbalance where large organisations with considerable resources and long histories of working in the energy sector have the ability to use their positions of power to influence regulation and policy more effectively. WPD has considerable power and influence at the centre of the UK's energy system, and respondents to this consultation want WPD to use this to enable a fairer and more democratic energy system. By publishing the evidence from this consultation, it is hoped that WPD can use their influence, and act as an intermediary to help level the playing field for communities and local energy stakeholders.

WPD also has a key role in ensuring that the benefits of the DNO transition are shared amongst its customers and that community and local energy stakeholders are not disadvantaged when looking to enter emerging markets. To do this, WPD will continue to provide clear information on the network, new services being procured such as flexibility, alternative connection solutions and revenue stacking opportunities. This includes continuing our community work to build knowledge and capacity of these stakeholders to participate, and having a dedicated point of contact for communities.

Table of actions

WPD will continue and further develop its community energy work programme to ensure that communities are kept informed about the changes in the industry and are able to take advantage of new opportunities.

WPD understand that communities are not well aware of the ways they can influence regulation and government policy. Therefore, WPD will ensure through their community energy work and stakeholder engagement that communities are informed about how they can pass their views to Ofgem.

WPD will inform Ofgem that communities are not well aware of the ways they can have their say on regulation and policy issues and will make recommendations to Ofgem on what can be done to improve the way communities engage with Ofgem and the government.

WPD will ensure that the information and tools available to community energy groups are easily accessible by improving the WPD website. WPD will do that by involving communities in the process through dedicated stakeholder engagement workshops.

WPD will ensure that community energy groups have the opportunity to participate in WPD's annual stakeholder roadshows so that communities can provide their input on the areas that WPD should focus on as a business.

In the areas where WPD is buying flexibility services, WPD will run workshops to provide information to community and local energy stakeholders about the services needed, and the process that needs to be followed by people who want to deliver those services.

WPD will make data on flexibility service requirements freely available on the WPD website so that everyone can understand what service is required and where.

WPD has committed to support the flexibility products agreed in the Open Networks project and will continue educating community energy groups to ensure that these products are understandable by all.

WPD will continue to set no minimum entry threshold when procuring flexibility services and ensure that we are inclusive of smaller scale players. The customers wishing to go through an aggregator will still be able to do so.

WPD will make the Flexible Power diagram more interactive, incorporating the feedback received.

WPD will be reviewing the Terms and Conditions of the flexibility contracts at the end of every procurement cycle, responding to the feedback received.

WPD is working through the Energy Networks Association Open Networks project to develop effective coordination with the ESO to ensure that we are not sending conflicting signals to providers of flexibility. We will follow a market-led approach in our procurement of flexibility services.

In the cases where minute-by-minute metering is not part of an existing connection, WPD will offer its own product which will include the required metering to ensure that customers are paid for the services they deliver.



Once again WPD would like to thank everyone who participated in this process. This consultation is part of WPD's ongoing engagement work with community and local energy stakeholders and the results will be used to develop and improve future plans and processes. If you have any questions, please contact us on:

Email: wpdnetworkstrategy@westernpower.co.uk

Post: Network Strategy Team, Western Power Distribution, Feeder Road, Bristol, BS2 0TB

This consultation and report has been developed in partnership with Regen.