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Our ref *Your ref* *Date*
5 February 2020

Dear Alex

Consultation – Key enablers for DSO programme of work and the Long Term Development Statement

I am writing on behalf of Western Power Distribution (South Wales) plc, Western Power Distribution (South West) plc, Western Power Distribution (East Midlands) plc and Western Power Distribution (West Midlands) plc in response to the above consultation.

Please see attached responses to the questions raised in the consultation.

If you wish to discuss this further please contact Ben Godfrey, DSO Network Strategy Manager at bgodfrey@westernpower.co.uk

Yours sincerely

PAUL BRANSTON
Regulatory & Government Affairs Manager

Consultation – Key enablers for DSO programme of work and the Long Term Development Statement

Question 1: *We consider that improvement is required in the visibility of DG and LCTs connected to the distribution network. It addition to DG and LCT connections, can you identify areas for improvement in the current data that is shared in the LTDS?*

WPD has published the Generation Connection Register since 2018. This details the visibility of all DG connections notified to or connected through WPD, either in aggregate or individual form. Volumes of connected LCTs are described in our Distribution Future Energy Scenarios as baseline volumes and these reports are refreshed every six months. The Strategic Wider Works Register has also been created to provide more visibility of connected assets.
WPD would be happy to adopt other formats and publications if this enables swifter decarbonisation.

Question 2*: Can you identify areas for improvement in the presentation of network information in the current FoS?*

The existing presentation of network information is complete, but can require addition interpretation to distil into pertinent information used to inform. We would welcome stakeholder input on data formats which may instead directly inform.

Question 3: *The EDTF and others have identified the need to collate and share 11kV and lower voltage network data. Is there value in creating a sharing mechanism for 11kV and LV network data ahead of the expected roll out of network monitoring and telemetry in RIIO-ED2 and the limited data availability in RIIO-ED1?*

Smart metering will provide the most complete picture on LV network data and can inform an improved picture of 11kV network usage. WPD operates over 160,000 HV/LV substations and is moving towards a fully digital mapping of LV and 11kV assets. Up to date telemetry and asset data will be required to provide the greatest benefit, sharing mechanisms must reflect the current availability of this data.

Question 4*: Given the complexity of future distribution networks, static data alone may not satisfy user needs. Should the FoS be enhanced to mandate the development of a common network model to allow power system simulation that each licensee must make available for exchange to users and interested parties? If so, what do you consider to be an appropriate standard?*

Static data on distribution networks can provide deep insights into system capacity and potential, but operational mitigations, procedures and running arrangements will also affect the ability of a network to accommodate load. Network and System operators are well placed to provide direction on capacity accommodation or flexibility system requirements and these indications should be more valuable than static network data. WPD's CIM innovation project model should also be considered if there are limitations within the static data.

Question 5: *From a review of industry publications we consider that interoperable standards will underpin future DSO activities. Should the FoS mandate the adoption of a IEC 61970 CIM and IEC 61968 CIM for Distribution Management, such that data is collated and constructed in a manner similar to WPDs CIM innovation project model? Are these standards mature and what are the likely benefits and costs?*

WPD's CIM innovation project model proves the concept of this data as an innovation model. The additional costs of moving to a business as usual implementation should also be considered and the progress some system and network operators are moving towards this within current price control periods should be acknowledged.

Question 6: *Should the FoS also be retained in its current Microsoft Excel form? Is there value in this format?*

Microsoft Excel format is universally accessible and provides value, but as other standards or formats are adopted, its usefulness should be reviewed.

Question 7: *Ensuring network information remains accessible is a priority. At present there is no formal requirement for the production of heatmaps. In order to ensure future customer can access the required data, should the scope of the LTDS and FoS be extended to mandate the production of heatmaps?*

WPD has published heatmap data since 2015.

Question 8: *Would there be benefit to adopting common guidance or formats on information presentation within heatmaps, including the presentation of technical information and cost information? What are the barriers to its adoption?*

WPD has led and informed good practice for heatmap standardisation through Open Networks.

Question 9: *The core focus of the LTDS is to assist users to enter into arrangements with the licensee and evaluate the opportunities for doing so. Should the scope of the heatmaps include other network needs, such as flexibility requirements? What is the best mechanism to notify network users of opportunities to enter arrangements with the licensees?*

WPD provides detailed data on system requirements for flexibility through its flexibility map www.westernpower.co.uk/network-flexibility-map. This provides a 5 year window aligned to 4 industry aligned Future Energy Scenarios for each constraint managed zone. All the data is downloadable or visible through dynamically created graphs.

Question 10: *On what frequency should these maps be updated? Should they be updated as there are changes to the underlying data or periodically?*

WPD updates the signposting information every 6 months, aligned to our procurement cycle windows.

Question 11: *Is there a need for a common methodology or principles for estimating load growth? What potential role could the D-FES play in informing the load growth forecasts on the LTDS?*

WPD's DFES informs the demand, generation and storage growth for all four of its licence areas. WPD has aligned its own pricing, week 24, LTDS and flexibility work with these forecasts and these DFES scenarios also inform conventional business planning.

Question 12: *Are there any lessons that can be learned from other industry documents such as the ETYS and the NG FES?*

WPD's DFES is aligned to the NG FES and we have engaged with each other to better inform the scenario framework and regionalisation.

Question 13: *Do you agree that the LTDS should be enhanced to present the key assumptions for network requirements forecasting and the uptake in LCTs, or is this a role better served by the D-FES or other documents?*

WPD's DFES and LTDS are aligned, with the DFES providing much more detail than the LTDS in terms of disaggregation and LCT volume reporting.

Question 14: *Forecasting tools have been a focus of a number of innovation projects. Are there any mature tools or techniques that could be adopted to enhance the transparency or robustness of the load growth forecasts?*

WPD's DFES has been created as part of business as usual and has not been subject to innovation funding, however, has developed significant competency in forecasting and electrical analysis. The published outputs have provided tangible documentation and data to industry and stakeholders since 2016.

Question 15: *Do you agree that IDNOs should be issued with a direction to produce a LTDS?*

IDNOs should feed into the relevant processes, but this may be accomplished by feeding in relevant data to DNO processes, rather than establishing their own. Establishing data requirements through Open Network may be one way of rapidly achieving this.

Question 16: *What summary information should IDNOs publish? This is currently found in section one of the LTDS FoS, such as information relating to the design and operation of all voltage levels of the distribution network. Please explain your reasoning.*

Data held by IDNOs should be identical to that held by DNOs, so the requirements should be equivalent.

Question 17: *What information on network data should IDNOs publish? This is currently found in section two of the LTDS FoS. Please explain your reasoning.*

See answer to Q16

Question 18: *Do you agree with our proposal on how the LTDS delivery body should be convened and governed?*

Consideration should be given to how this process can be accelerated through the existing framework provided by Open Networks.

Question 19: *Would you like to nominate an individual to take part in the LTDS working group? Please set out reasons for their inclusion and any qualifying experience the nominated person has to function as a strong contributor to the group.*

No response.

Question 20: *What network monitoring parameters would you like to have access to? At what frequency?*

WPD reviews its monitoring capability in line with the requirements of the network and its customers, balancing the improved accuracy of actual recorded data against the

counterfactual cost of using assumed data. This balance is continually reviewed considering decreasing technology costs and the implications of DSO.

Question 21: *What would enhanced 33kV network monitoring enable that cannot be undertaken today?*

See Q20.

Question 22: *What would enhanced 11kV network monitoring enable that cannot be undertaken today?*

See Q20.

Question 23: *What would enhanced LV network monitoring enable that cannot be undertaken today?*

See Q20.

Question 24: *What constraints in data systems architecture do you perceive are limiting network monitoring and visibility?*

See Q20.

Question 25: *What operational data is most important to prioritise opening up first and why?*

See Q20.

Question 26: *How does a lack of access to this data impact the delivery of flexibility to the system?*

WPD provides detailed data on system requirements for flexibility through its flexibility map www.westernpower.co.uk/network-flexibility-map. This provides a 5 year window aligned to 4 industry aligned Future Energy Scenarios for each constraint managed zone. All the data is downloadable or visible through dynamically created graphs. Furthermore, WPD provides more accurate 3 year data on actual procurement needs through its Flexible Power brand www.flexiblepower.co.uk/our-schemes.

Question 27: *Are there any real or perceived conflicts of interest with DNOs owning and operating ANM platforms at scale? What additional protections could be required for ANM customers?*

WPD's ANM platforms merely curtail connections that have already received accelerated and low cost access to the network. Connections can avoid curtailment by paying for and/or waiting for upstream reinforcement. WPD's Flexibility dispatch systems are separate and aim to avoid constraints by increasing utilisation through market-led constraint management.

Question 28: *In order to preserve optionality over ANM scheme operations, what technical and commercial protections, such as technical ring-fencing, may be required?*

To date, WPD has had 736MW of ANM connections accepted, so existing uptake by generation customers is good and does not present a barrier. ANM technical and

commercial protections should be reviewed in light of the work completed under TCR/SCR to ensure the existing arrangements remain sufficient.

Question 29: *Please provide real world examples where lacking timely access to usable network data, or regulatory barriers, have limited your ability to provide a DSO function or support service. Please submit any relevant evidence and documentation of examples cited.*

No response

Question 30: *Are there any other issues related to enabling DSO that have not been considered that you think are important? Please provide details of your considerations. Visibility of the distribution network's ability to accommodate connections and services is important and should be a key output of the LTDS. Visibility of services proposed, contracted and dispatched within a distribution network area will be an important infeed to determine capacity and accommodation. This should include better visibility of ESO services at procurement and operational timescales.*