University of Sheffield – response to Ofgem 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?

A robust methodology is required for assigning any geographical network location to any topological network location. To do this, data is required that allows users to build their own geographical map of the distribution network so that any geographical location can be mapped to a topological location on the distribution network. For example, the location of a secondary supply point and it's hierarchical relationship to primary, bulk and grid supply points. Such a list would then enable analysts to model power flows across the electricity grid.

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

No response

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?

No response

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?

Yes. Distributed energy resources are strongly coupled to the topology of the distribution network. Depending on the use case, different simulations may require different rules of aggregation. In the future, we must enable live network modelling for efficient system operation. The gold standard we should be aiming for is a live list of locations with full hierarchical topology of the network up to GSP. For example, the location of a secondary supply point and it's hierarchical relationship to primary, bulk and grid supply points. Such a list would then enable analysts to model power flows across the electricity grid.

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?

No response

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

No, Excel is not a good tool to handle the volumes of data we should be striving to incorporate.

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?

No response

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?

No response

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?

No response

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

We should aim for the maps to present a live view of the data they represent.

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?

No response

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

No response

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?

No response

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?

No response

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

No response

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.

No response

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.

No response

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

No response

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?

No response

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

No response

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

No response

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

No response

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

No response

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

No response

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

No response

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?

No response

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

No response

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 any 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.

No response