
17TH OCTOBER 2019

Consultation on Ofgem's position paper on Distribution System Operation

ABB response

Introduction

ABB welcomes Ofgem's consultation and is pleased to submit the following response. Our submission seeks to answer the questions to which we can offer substantial insight, therefore it does not answer every question.

About ABB

ABB is a pioneering technology leader in electrification products, robotics and power grids serving customers in utilities, industry, transport and infrastructure globally. We innovate and produce technologies from electric vehicle chargers, to power grids and digital solutions which both enhance energy efficiency and user experience. ABB provides products, systems and service solutions that not only enhance our customers' businesses, but also lessen their environmental impacts, through improved energy efficiency and increased industrial productivity. We operate in 22 sites across the UK, from Aberdeen to Andover, where products are manufactured, sold, serviced or engineered.

Consultation response

1. Do you agree with our strategic outcomes?

Yes. The strategic outcomes are the right ones and are, in our view, relatively uncontroversial. If we are to have an energy system capable of supporting decarbonisation and a successful energy transition, Ofgem's goal of remodelling the DNOs around the concept of flexibility is an important one.

2. Do you agree that our work programme will help to deliver the strategic outcomes?

We agree with the core thrust of the work programme; however, we believe that Ofgem's understandable aim to maintain optionality should be balanced with a real need to move quickly, particularly around the issue of data.

Data: Ofgem rightly identifies data as the key enabler for DSO functions. Investment in DNO IT/OT and data systems has been historically low, is long overdue and urgently needed if as DSOs they are to be able to deliver the enabling functionality as described. However, the amount of investment required could be significant so more could be done to incentivise DNOs to act now in advance of RIIO-ED2. This is a least regret action

Furthermore, Ofgem could be more prescriptive about the kinds of improvements to data systems that are needed. DNOs often do not have their own internal data systems sufficiently integrated. For example, there might be a geographic information system, an asset management system, a real time system, and many 'offline' spreadsheets each with incompatible and fragmented data sets that take significant cost and time to manage. Before we reach a stage where this data can be used by 3rd parties to inform consumers' choices about EV charging, for example, the priority must be to incentivise DNOs to rationalise their own data systems *internally*, so they can be sharable with and understood by other third parties. A first step could be an audit of DNO data systems. ABB believes that these are actions that could be taken as soon as possible to better inform the likely future RIIO-ED2 work programme

Roadmaps: Ofgem rightly talks about the need to steer the adoption of key enablers for DSO functions and encourage the DNOs to put roadmaps in place to plan and guide the delivery of required DSO functionality. We believe these should be shared with original equipment manufacturers (OEMs) like ABB. This would enable us to contribute our expertise to inform the production of the roadmaps in terms of future costs of technology and would allow us to be better prepared.

Long Term Development Statement (LTDS): We welcome Ofgem's aim of revamping the LTDS. At present, we believe the LTDS is too vague to and does not provide supply chain participants with enough data to inform their planning. In addition to more detail, the LTDS would benefit from having in-built mechanisms to incentivise progress and measure which outputs have actually been delivered. This would have the additional benefit of again giving the supply chain more information to aid forward planning.

3. Do you have anything to add to the thinking and analysis that informs how we propose to deliver our programme of work?

Digitalisation of the grid edge: A priority must be the widespread digitalisation of the DNOs grid edge. As new energy technologies are deployed in businesses and homes (solar, storage, EVs and electric heating) digitalisation of the DNOs' grid edge is essential to give visibility of loading and capacity to potential flexibility providers in real time. There is currently very little information available for potential flexibility providers on, for example, the DNO-operated low voltage networks. However, there are questions over how this digitalisation will be funded. The existence of flexibility markets does not necessarily guarantee their viability for DNOs and it is not yet clear that DNOs can maintain profits by choosing flexibility over traditional substation solutions and safely investing in digital grid edge technologies. This uncertainty may put off prospective external investors.

Asset integration and management: We believe the DSO discussion should encompass 'Enhanced Asset Performance Management' in addition to flexibility as a means of avoiding network reinforcement for future load growth. Although Condition Based Risk Management had been widely adopted over recent years and has delivered many industry benefits, it is unclear (if not unknown) how assets may perform under the different loading and usage patterns we can expect to see under the future energy system transition.

Guiding Mind: We suggest adopting the Future Power Systems Architecture project's widely welcomed recommendation that there be a centralised body that has to 'Ensure that there is an implementation framework for delivery of the required functionality, with particular responsibility for end-to-end operability, taking account of other developments in energy sector reform.' This body would coordinate the agreement and policing of standards for functionality to ensure integration is possible, which we believe is in tune with Ofgem's 'whole system's approach.

Integration between DNOs: Whilst we welcome Ofgem's emphasis on vertical integration, ABB believes that more horizontal integration between DNOs would also have merit where DNOs are geographically adjacent and share interconnectors. As well as potential economic benefits, more coordination and communication between DNO networks would have positive effects on energy balancing and whole system resilience.

Institutional reforms and KPIs: The position paper states in paragraph 1.18 that Ofgem believes it is too early to implement institutional reform. ABB believes the paper would benefit from clarification on what criteria Ofgem would apply to determine whether a DNO was adequately performing DSO functions and whether intervention was needed. We believe the paper should include clarification on the KPIs that DNOs will be measured against and how their success in transitioning to DSOs will be measured.

Recognising the economic value of decarbonisation: Given that one of the key goals is decarbonisation of the energy system, we see very little reference to decarbonisation in the workings of the programme. Having a mechanism for valuing the decarbonisation impact of investments, or changes in operation, will be essential in evaluating many of the future investment choices that will have to be made.