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Dear Sir or Madam

Thank you for the opportunity to respond to the 'Position Paper on Distribution System Operation: our approach and regulatory principles'. Please find below E.ON's response.

Executive summary

In general, we agree with Ofgem that the strategic outcomes and workstreams proposed in this paper will thoroughly analyse and inform all potential policy positions regarding Distribution System Operation (DSOs).

We believe that the most fundamental question surrounding the role of a DSO is the degree to which it needs to have clear separation from all other parties. We believe that to support the nascent flexibility markets, DSOs are best suited to be independent from the Distribution Network Owner (DNO), much in the same way as the Electricity System Operator (ESO) has been made independent of the Transmission Operators (TOs). We believe the same logic used to justify the legal separation of the TO and the ESO should also apply to DNOs and DSOs. A DSO has a very different business model with a different asset base and risk profile to a DNO. We believe that this should extend to having a different price control for DSOs as well.

We believe the best long-term model for system operation of the electricity network is to have a single system operator who is responsible for balancing the network across all voltage levels (transmission down to LV). This will ensure a fully coordinated approach across voltage boundaries so that there are unlikely to be instances of actions being taken at transmission level which will have a knock on (and adverse) impact at distribution level. There is also clear responsibility and accountability for all balancing issues. We recommend that the ESO is best placed to be this single party due to its expertise in running balancing/flexibility markets. We do acknowledge though that local LV network knowledge is crucial and therefore a transition of LV network operations (including the people) from DNOs to the ESO would be required.

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We agree with Ofgem that there are risks and benefits of DNOs delivering services for the DSO due to its monopoly position of network owner and being the sole route to new connection. We look forward to Ofgem's decisions later this year regarding DNOs capability to modulate EV chargers as well as using network assets to deliver commercial services¹. We believe the deciding factor in these types of decision should be that the customer receives the full (and transparent) benefit of the flexibility they have provided and that the flexibility provided is valued in a clear and consistent manner that is made available to all (just as an open market would see the clearing price). DNOs should not see these sources of flexibility as 'free' or 'cheap'. This should also extend to the benefit to the wider customer. Individual customers must not be made to give up their flexibility without clear compensation, even if that means lower bills for the general customer.

Q1. Do you agree with our strategic outcomes?

At a high level, we agree that the four strategic outcomes (clear boundaries & effective conflict management, effective competition, neutral tendering with level playing field between traditional and alternative solutions and whole system outcomes) are a sensible framework to build up the role and responsibilities of the Distribution System Operator (DSO).

These strategic outcomes also need to be seen in the context of other regulatory frameworks, especially RIIO. A related strategic outcome therefore could be around effective regulation of the DSO. A clear question related to regulatory priorities for DSOs will be whether DSOs are best regulated under a separate price control or whether they can be sufficiently tackled under ED2 (Electricity Distribution) price control. Given the recent separation of ET (Electricity Transmission) and ESO (Electricity System Operation) price controls, we believe that this logic for separation (differences in business models, asset bases, risk profile, ability to control costs etc) should also be extended to the distribution level. The incentive scheme needed to ensure customers receive good value for money in terms of balancing the distribution system is quite different to that of ensuring network reliability and safety. Given the different financial weightings between the network management side of the business (DNO) and the network balancing side (DSO), it is feasible that that DSO priorities could get lost by a DNO looking to maximise their returns. The regulator needs to have a clear view of the DSO function within the DNO and levers with which to incentivise it to do the right thing. Legal separation is one route to deliver effective regulation for DSOs.

Another reason to introduce a separate DSO price control is that it embraces the optionality that Ofgem are keen to pursue. By requiring the DNO to separate out the DSO function allows that role to potentially be moved in terms of institutional change later once the role has matured. We believe that some of the DNOs are already looking to segment their business in this manner.

¹ Voltage control systems (such as CLASS) bidding into the frequency response market

Q2. Do you agree that our work programme will help to deliver the strategic outcomes?

To our mind, the key strategic outcome to deliver is understanding where boundaries between monopolies (such as the DNOs) and markets need to be set and how conflicts of interest can be mitigated. It is vital to understand where DNOs can participate and where their inherent advantage is too significant to allow new entrants a foothold.

The 'DNO and new contestable services' workstream as defined by the three characteristics (vertical integration, unique monopoly position and conflict between competitive role and neutral monopoly role) is a sensible starting point for analysis of policy positions.

The examples of DNOs being allowed to modulate electric vehicles (EVs) to resolve constraints and making use of network voltage control (as per Project CLASS) are good demonstrations of where this strategic outcome needs to bring clarity. A further example that is being considered by the Access and Forward Looking Charges SCR is DNOs' monopoly access to non-firm connection agreements that allow them to curtail customers (demand and generation) for financial recompense².

Our concern regarding this monopoly access is that there is no competing tender for customers to discover the true value of their flexibility. Customers would be at a disadvantage in gauging the value of their flexibility and hence risk selling it cheaply. This would allow DNOs to undercut all other potential flexibility providers and capture the market, reducing the case for investment in flexibility assets. For EV modulation, it also does not correctly reward customers for helping the network. Had the customer bid this demand reduction into one of the ESO markets (or a DNO flexibility procurement tender) then they could have set the price that they were willing to take this action.

Early iterations of non-firm connection agreements saw DNOs providing cheap and quicker connections, but with no reimbursement for customers with little to no recourse to renegotiate. This means that DNOs could potentially bid this flexibility into a market at £0/MW, killing the market for all other players with non-zero short run margin costs.

Careful consideration needs to be given as to how customers can be given a clear signal as to the value of their flexibility to the network (even if they are still constrained to negotiate with a single supplier). It is then down to the customer as to how they wish to balance 1.) gaining cheaper and earlier access and 2.) being reimbursed for providing flexibility.

Customers and not DNOs must dictate availability and the sale of flexibility from new connections, EV modulation etc. Due to their monopoly position,

² As well as cheaper and earlier connection to the distribution network

DNOs should only act as a route to market for customers selling their flexibility (much as aggregators act as a route to market for small generators).

We do recognise that allowing DNOs to offer non-firm connections into flexibility markets is likely to lower balancing costs for the rest of the customer base. However, Ofgem needs to ensure that the true cost of flexibility is made transparent through markets and is not hidden in individual connection agreements. Having the true cost of flexibility being embedded in early and cheap connections gives the DNO a monopoly position regarding knowing the true price of flexibility.

The 'Key Enablers for DSO functions' workstream needs to ensure that industry develops the enablers required to develop flexibility markets without locking these enablers into a particular party e.g. proprietary data format. We agree that license conditions should be reviewed to ensure that network data and forecasts are made accessible and understandable to non-specialist parties e.g. prosumers such that full use of this open data can be developed by all parties. We also support the installation of monitoring equipment across all substations, the cost of which can be factored into each DNO's RIIO totex mechanism. We agree with Ofgem that priority should be in making planning and forecasting data available to all through the Long Term Development Statement (LTDS) so that all parties' investment decisions can be better (and equally) informed. Network monitoring data (which supports better forecasting data) should also be a priority. We look forward to Ofgem's consultation on reviewing LTDSs.

The final workstream 'Development of coordinated flexibility markets' highlights issues that we believe point to a single system operator across all the voltage levels – consistency of processes and products with coordinated actions. Having several DSOs all trying to coordinate across each other and the ESO is liable to create complexity, confusion and possibly exacerbation of costs. We believe that flexibility can most quickly be realised by having a single party that all participants tender to, much as the ESO does for the transmission network. With a single party there should be no concerns regarding coordination. Flexibility platforms will all be in one place and allow customers to stack revenue very easily.

Q3. Do you have anything to add to the thinking and analysis that informs how we propose to deliver our programme of work?

One concern that we have is that BEIS/Ofgem's Smart System and Flexibility Plan highlighted much of the issues raised in this consultation back in July 2017. Over the intervening 24 months, it is not clear how much further we have come in our thinking or conclusions around the roles and responsibilities of DSOs. In order to deliver high levels of renewable generation needed for Net Zero in a financially efficient manner, it is vital that flexibility markets are up and running and mature during the 2020s. The evolution of these markets will take time and delaying decisions around who

will be responsible is threatening the very real benefits highlighted by the Imperial College flexibility report³.

³ Imperial College, 'An analysis of electricity system flexibility for GB' 2016