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Dear Louise

National Grid ESO response to the Ofgem position paper on Distribution System Operation

Thank you for the opportunity to provide feedback on your proposed approach to Distribution System Operation (DSO) policy development. National Grid Electricity System Operator (NGESO) became a legally separate entity on 1 April 2019. As the ESO we use our unique perspective and independent position to facilitate market-based solutions which deliver value for consumers. The ESO strongly believes that in the changing energy landscape such solutions need to take a whole system view to maximise consumer value.

We consider DSO to be a fundamental part of whole system development and therefore recognise the need for ESO engagement within this evolving area. National Grid ESO is committed to work with Distribution Network Operators (DNOs) and other parties to facilitate the transition to DSO. We are actively working with a broad stakeholder base to facilitate the provision of balancing services from smaller distribution connected parties. Through this work, which includes initiatives such as Power Responsive and widening access to the Balancing Mechanism, we are well placed to bring unique insights into the development of DSO.

We welcome the publication of your position paper on Distribution System Operation and believe that it will be helpful in providing guidance to the industry on how the Regulator sees the efficient development of more active distribution networks and the commercial mechanisms that will support efficient outcomes for the consumer. Our high-level thoughts are listed below and in the attached annex we have provided responses to the questions asked in your position paper.

- We agree with the proposed focus on actions ahead of RIIO-ED2 whilst recognising the impact of DSO on ED2 business plans. As part of the ENA Open Networks project we are actively engaged in this development and supportive of its recent increased focus on delivery of DSO.
- We agree with an approach that sees broader consideration of the new roles and responsibilities in the changing energy landscape, particularly where this facilitates the development of new market-based solutions.
- We agree with the need for an agile approach to DSO. We believe that through a co-ordinated approach that considers whole electricity system outcomes we can support the delivery of least regrets solutions that create consumer value. This is consistent with the current thinking of the Open Networks project and the approach taken in our draft RIIO-2 business plan.
- We are supportive of the four proposed strategic outcomes, welcoming the whole electricity system focus and the importance of effective, transparent competition between all industry parties. We believe that these objectives are consistent with our RIIO-2 ambition.

Should you require any further information or would like clarity on any of the points outlined in this response then please contact Andy Wainwright in the first instance at andy.wainwright@nationalgrideso.com.

Yours sincerely,

Craig Dyke
Acting Head of Networks

Annex – National Grid ESO response to Ofgem questions

The Ofgem position paper on Distribution System Operation (DSO) invites responses to three specific questions. In this annex we provide our initial thoughts in response to these questions.

Question 1 - Do you agree with our strategic outcomes?

We broadly agree with your strategic outcomes and have the following comments;

- In the position paper the terms ‘whole electricity system’ and ‘whole system’ appear to be used interchangeably. For example, in your overview of section 2 you describe one of the four proposed strategic outcomes as ‘strongly embedded whole system outcomes’ whilst on p.14 paragraph 2.7 is introduced as ‘strongly embedded whole electricity system outcomes’. It may be helpful to define terms in this area to provide clarity. Indeed, in our work on whole electricity system, stakeholders have told us that they value clarity over terminology and scope. As a result we define ‘whole electricity system’ as covering electricity transmission and distribution, including all parties involved in delivering for consumers. We support an initial whole electricity system focus for DSO but recognise this will increasingly broaden to a whole system view as cross vector considerations mature (as suggested in paragraph 2.7 of the position paper).
- We agree that the proposed outcomes will help drive the development of co-ordinated flexibility markets but would question whether they are sufficiently broad to guide the development of the wide range of DSO functions shown in Fig. 2. For example, it may be appropriate to have an outcome that promotes efficient operation of distribution networks on a whole electricity system basis, which would ensure any market-based mechanisms are based on an optimal starting point.

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

We support the three suggested workstreams and agree that these are highly interlinked. We recognise these as focus areas raised with stakeholders in our forums and in many cases relate either to transformational activities we are undertaking as 2019-21 Forward Plan deliverables, or proposing to undertake in RIIO-2. We provide further thoughts on the three workstreams below;

- *DNO and new contestable services.* We believe that this is an emerging area that warrants further development and clarity. From an ESO perspective we have identified two potential streams, and believe further could occur in the future. These are;
 - *Roles of DNOs in the provision of balancing services.* National Grid ESO procures balancing services from third parties to support our efficient management of the transmission system. Stakeholders have told us that they want greater clarity of the role of DNOs in such contestable services and we support Ofgem’s work in this area to provide such clarity.
 - *Roles of DNOs in the provision of services for longer term transmission system needs.* Our work to expand the NOA is considering distribution network and non-network solutions for transmission system needs. We are aware of the complex interactions in this area and continue to work with stakeholders to ensure a transparent process that creates a level playing field for all solution types.
- *Key enablers for DSO functions.* We support the need for timely development of the listed enablers and are already working with others to progress many of these. This includes work with the ENA Open Networks project as well as our own initiatives such as the ESO data explorer. Additionally, in our draft RIIO-2 business plan submission we have set out an ambitious programme that will, from April 2021, support the industry’s transition to DSO. This includes the development of consistent and co-ordinated flexibility markets, the greater need to share planning and operational data and models, and reformation, on a whole electricity system basis, of technical codes and frameworks. We believe this programme aligns well with the intent of this workstream. In addition, we support the conclusions of the Energy Data Task Force and agree with a philosophy that ‘data relating to common assets is presumed open’. We believe that this approach should extend beyond regulated entities to all parties involved in DSO.

- *Development of co-ordinated flexibility markets.* Stakeholders have told us that they value consistent and co-ordinated markets for flexibility services. We have already done much work, through our System Needs and Product Strategy (SNaPS), to ensure consistency and co-ordination across services for transmission system needs. We are now working with others through the ENA Open Networks project to take this ethos forward between services for transmission and distribution needs. We recognise the importance of consistent services for distribution needs in helping to achieve this. Through appropriate standardisation of DSO services we can ensure efficient co-ordination not only in terms of procurement timescales and availability windows, but also work more closely on meeting locational system needs. In the longer term, our RIIO-2 Business Plan proposes to ensure interoperability between the ESO single market platform and flexibility market platforms at the distribution level.

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

We have provided further thoughts in two areas to build on thinking and analysis described in Ofgem's position paper.

1. Thoughts on DSO functions

We read with interest your functional breakdown of DSO (Fig.2 in your paper) seeing it as a helpful guide to understanding the breadth of DSO activities. As the Electricity System Operator we can see how many of these functions have equivalence to transmission system operation. This allows us to provide further insight.

Whilst we recognise that the diagram does not seek to be definitive, we do feel it is important not to over compartmentalise DSO functions at this time. In our experience a number of the listed functions (e.g. forecasting demand and generation and DER, data management and sharing) cut across timescales. It could therefore hamper development of DSO activities in these areas if stakeholders believed they were only applicable to 'long term' or 'real time' timescales. We would therefore advocate further consideration of those functions which cut across two or more of the listed areas.

2. ESO activities that support DSO milestones

National Grid ESO, as highlighted in our 2019/21 Forward Plan¹ and draft RIIO-2 business plan², is committed to working with others to drive the whole energy system transition and the associated evolution of DSO. We note that in Fig. 3 of your position paper you describe a number of milestones between now and 2023 that will help facilitate DSO. We believe that this is a helpful guide to the work that Ofgem believes needs to be taken between now and the start of RIIO-ED2.

To support this work, we provide further detail below of how the ESO is supporting the timely delivery of these milestones including whether these are activities already defined in our 2019/21 Forward Plan or collaborative work we are actively involved in through Open Networks. We believe, through consideration of the proposed DSO workstreams, that further ESO activities may be of benefit, for example making more use of Power Responsive to facilitate stakeholder discussion on flexibility market co-ordination. We intend to develop these thoughts further as part of our 2020/21 Forward Plan development, and will engage with stakeholders through this process early in 2020.

We note that RIIO-2 for National Grid ESO commences in April 2021 which provides an excellent opportunity for the ESO to support the DSO transition to RIIO-ED2 in April 2023. Our October draft business plan submission contains many activities that will support the transition to DSO and the Ofgem proposed workstreams particularly in relation to developing key enablers for DSO functions and the development of co-ordinated markets.

Whilst our RIIO-2 business plan proposals primarily focus on ESO markets and systems, interoperability with other markets and platforms is central to our proposals, including those at the distribution level. We recognise the need for common standards, data models and interoperable systems and will make them central in how we design our markets and their interaction with other markets. Our RIIO-2 proposals provide more context on how we will work with DNOs

¹ <https://www.nationalgrideso.com/about-us/business-planning-riio/forward-plans-2021>

² <https://www.nationalgrideso.com/about-us/business-planning-riio/riio-2-draft-business-plan>

and others to ensure that common standards, including interoperable systems, a common data model and shared minimum specifications are central to the design and delivery of our proposed ESO single market platform.

a) ESO activities that support the 'DNOs and contestable services' workstream

Year	Ofgem proposed DSO milestone	ESO activity to support
2019	DNOs to develop and demonstrate mitigation to real or perceived conflicts of interest	<i>Open Networks</i> ; Work with ENA Open Networks workstream 3 to deliver conflicts of interest log. Commitment to highlight risks to Ofgem as and when they occur.
2020	Stakeholders to provide input into discussion around DNO involvement in contestable services	Provide ESO insights and support submission of stakeholder views

b) ESO activities that support the 'key enablers for DSO functions' workstream

Year	Ofgem proposed DSO milestone	ESO activity to support
2019	DNOs should set out clear roadmaps for data transparency	<i>Open Networks</i> ; Work with ENA Open Networks workstream 1B to facilitate clear roadmaps for data transparency. <i>RIO-2 Business Plan</i> ; We have set out the timeline for ESO data transparency.
2020	Ensure network planning and forecasting data is open (accounting for relevant regulations) and available in an interoperable format, including the updated LTDS requirements. Industry to raise and complete relevant modification to codes for example on week 24 DNO-ESO data exchange grid code modification	<i>2019/21 ESO Forward Plan</i> ; Deliver ESO data explorer and commence work on data portal to support the availability of data that will facilitate DSO. <i>2019/21 ESO Forward Plan</i> ; Publish additional forecasts of wind and PV to facilitate efficient development of DSO and make our energy forecasts more accessible. <i>2019/21 ESO Forward Plan</i> ; Work with DNOs to improve the data exchange in planning timescales. Considering use of the Common Information Model (CIM). <i>Open Networks</i> ; Support industry in raising appropriate Grid Codes modifications to facilitate DSO and administer change process where applicable.

c) b) ESO activities that support the 'development of co-ordinated markets' workstream

Year	Ofgem proposed DSO milestone	ESO activity to support
2019	DNOs should provide clarity on how ANM and flex procurement interact, and provide transparent information about needs, tenders and procured flexibility	<i>Open Networks</i> ; Work with ENA Open Networks workstream 1A to facilitate these requirements. <i>2019/21 ESO Forward Plan</i> ; Develop understanding and design by doing through work on specific DSO projects including Regional Development Programmes.
2020	DNOs should demonstrate convergence in procurement processes, and have developed and made transparent effective CBA processes for evaluating flexibility. We expect flexibility procurement as an alternative to meeting network needs to be embedded in business as usual.	<i>Open Networks</i> ; Work with ENA Open Networks workstream 1A to facilitate these requirements. <i>Innovation</i> ; Review learnings from Power Potential NIC project with UKPN <i>2019/21 Forward Plan</i> ; Through our work on extending the NOA and associated pathfinder projects we anticipate opening a variety of transmission system needs to non-traditional providers.