

Fiona Campbell
DSO Governance Team
Ofgem
10 South Colonnade
Canary Wharf
London
E14 4PU

By email to: flexibility@ofgem.gov.uk

Date

10 May 2023

Stephanie Anderson

0141 614 1581

Dear Fiona,

Future of local energy institutions and governance

This response is from SP Energy Networks (SPEN). We own the electricity distribution networks in the Central Belt and South of Scotland (SP Distribution plc) and North Wales, Merseyside, Cheshire and North Shropshire (SP Manweb plc). We also own the electricity transmission network in Central and South Scotland (SP Transmission plc).

We welcome Ofgem's follow-up consultation on the regulation of distribution system operation and evolution of the flexibility markets. The main points of our response are outlined below and our responses to the consultation questions are provided in Annex 1.

1. We support the premise of local and national arrangements for network planning needing to work together to optimise the system as a whole. There is a need for a market-neutral, cross-vector in the GB system, who can identify, assess and co-ordinate how demand for energy is likely to develop at a regional-level. In principle, we are supportive of a Regional System Planner role, however, we believe Ofgem must set out how the roles and responsibilities of the RSP function will be introduced, ensuring that existing network operator roles are not duplicated. This should include consideration of which licence requirements would be affected by, or would transfer to the proposed RSP function. In addition, a robust Impact Assessment should be carried out to ensure that any new roles are justifiable.
2. SPEN does not agree with Ofgem's designation of the Future System Operator (FSO) as its lead option to take on the proposed Regional System Planner (RSP) and market facilitation roles. Despite the FSO being designated as the Future System Operator, it does not currently exist, as the necessary legislation has not yet been enacted. However, in any case, the FSO in its current form do not have the necessary expertise in operating, maintaining, designing and constructing distribution networks. The FSO, if established through legislation, would be required to implement a significant recruitment drive in order to obtain the relevant expertise. In addition, the FSO would not be able to plan the

network with the required granularity, as demand is highly locationally-specific across thousands of locations beyond Grid Supply Points. The RSP will have to draw on cross-sectoral analysis of demand as well as be integrated with local and regional authority planning, therefore, local knowledge is vital to the success of any RSP.

3. Questions remain over how the FSO will be organised and incentivised. The addition of another responsibility to an organisation that is yet to be legally constituted, and the expectation that as RSP it would be able to set up regional centres, is premature and not based on a proven track record. Working on the assumption that the electricity system operator regulatory and incentive framework may apply to the FSO, we also share Ofgem's view that the impartiality of the FSO being a market buyer and central market facilitator is a credible risk.
4. Other industry bodies such as Elexon, Electralink and Xoserve, with more recent experience than the FSO of industry-wide system transformation and who possess skillsets and capabilities to undertake market facilitation of flexibility have seemingly been overlooked. We encourage Ofgem to present any comparative analysis of organisations it has undertaken or to seek expressions of interest to provide transparency over the pool of likely candidates.
5. We agree that DNOs should remain accountable for real time operation of the distribution network and support Ofgem's decision not to create legally separate or independent distribution system operators. Keeping real time operations within DNOs ensures there is clear accountability for network reliability and safety. The creation of new independent institutions takes on some of or all electricity distribution system operation (DSO) roles would have entailed disproportionate costs and disruption. DNOs have a proven track record, technical ability, local knowledge, the resources and strategies to function as DSOs.

At SPEN we produce our Network Development Plan¹ which involves carrying out an extensive and reiterative modelling exercise. In addition, we have created our own our Engineering Net Zero model. This is a SPEN developed model which assesses network impact and optimises solutions. Our model has assessed more than 250,000 assets carrying out 175,000 iterations per asset against each scenario. Across GB there are around 1,000 transmission substations and around 600,000 at distribution. This highlights the extensive nature of our network development and planning activities. A significant granularity of detail is required to effectively plan a distribution network.

6. The Authority has a statutory duty under the Utilities Act 2000 section 5A to carry out an impact assessment (IA) if the policy proposals are "important" which

¹ [*Network Development Plan - SP Energy Networks*](#)

includes if a proposal will have a significant impact on persons engaged in the distribution of electricity. The absence of an IA is also at odds with the approach in the Better Regulation Framework Interim Guidance which notes that an IA is a tool used to inform policy decision-making and should be undertaken at the pre-consultation stage. Completing an IA ensures good practice in developing policy based on robust evidence. The absence of a completed IA in this consultation undermines the case for change and Ofgem's assertion that it has developed reform options that represent the best balance of costs and benefits. We would ask that Ofgem completes an IA and further consults on the outcomes of that IA before it makes any final decisions in this area.

If you have any comments or queries on any aspect of this response, please do not hesitate to contact James Inbaraj or I (jinbaraj@spenergynetworks.co.uk).

Yours sincerely,



Stephanie Anderson
Head of Regulation & Policy

Annex 1

FUTURE OF LOCAL ENERGY INSTITUTIONS AND GOVERNANCE

SPEN RESPONSE

Q1 Do you agree with our proposal to introduce Regional System Planners as described, who would be accountable for regional energy system planning activities? If not, why not?

We support the premise of local and national arrangements for network planning needing to work together to optimise the system as a whole. However, the concept of regional system planning as described in the consultation is vague and unclear. The nature of any future RSPs' operations are poorly defined.

The necessary legislation doesn't yet exist to allow the FSO to be enacted. However, on the basis we anticipate the legislation will be enacted within the next year, we would highlight that the FSO will be required to acquire significant new expertise in operating, maintaining, designing and constructing distribution networks. This will take a number of years to resolve, if not decades. Furthermore, there would be a material conflict of interest for an organisation with financial incentives to reduce constraint costs being given extensive influence over network planning.

We elaborate below on the ambiguity of the concept and set out in our response to Q4 why we do not regard the FSO as a suitable party to undertake this role.

Vague and unclear concept of regional system planning

Figure 1 below is a notional operating model between intra-region DNOs, the RSP and various local actors based on the consultation (this figure has been created by SPEN). We use it to highlight areas where the concept of the RSP is ill-defined. The numbers in the Figure 1 correspond to the points below.

1. RSP's activity

There is limited detail in the consultation about the activities that RSPs should undertake, apart from the following high-level descriptions:

- Develop and own the critical planning assumptions.
- Coordinate, facilitate and ensure effective participation between local actors.
- Develop and own a regional whole system strategic plan derived from and informing sub-plans made by local actors.

- Provide independent technical analysis and advice to support decision making primarily within price control setting.

Critical planning assumptions and regional whole system strategic plans are proposed outputs from the RSP. Precisely what the RSP will do, the contents of its regional whole system strategic plan or the inputs it will require to generate these planning assumptions have not been explained in the consultation.

There is no information available on how the RSP's operations, whatever those might be, will interact with network development planning being undertaken by DNOs. Clarity on the RSP's proposed operations is necessary to understand the transformation activity, risk of stranded investments, costs, benefits and implementation challenges that the industry will be exposed to.

At SPEN we produce our Network Development Plan² which involves carrying out an extensive and reiterative modelling exercise. We first test the flexibility market for every network capacity shortfall we have identified out to 2028. We then combine inputs from our stakeholder-endorsed Distribution Future Energy Scenarios (DFES) forecasts. Furthermore, we have robustly tested each scenario by using our Engineering Net Zero model. This is a SPEN developed model which assesses network impact and optimises solutions. Our model has assessed more than 250,000 assets carrying out 175,000 iterations per asset against each scenario. Across GB there are around 1,000 transmission substations and around 600,000 at distribution. This highlights the extensive nature of our network planning activities. It also highlights the granularity of detail required to effectively plan a distribution network.

We identify where, when, and how we need to intervene to provide the capacity that our customers need, having fairly considered flexibility, energy efficiency, smart, innovative, and reinforcement solutions. It is a rigorous, robust and carefully timetabled iterative process.

The consultation offers no assurance that sufficient consideration has been given by Ofgem to how the introduction of an RSP might disrupt this process, the risks associated with its implementation and why institutional change is a better pathway than utilising the framework of regulatory and licence obligations to improve network coordination and planning. This is a key reason why we consider it is essential that Ofgem undertake an IA to test the proposals once they have been more clearly defined.

2. Duplication

We disagree with Ofgem's view that that the risk of duplication is mitigated because there is a clear distinction in the proposals between the focus of planning activity undertaken by existing actors and the RSPs. Paragraph 3.9 of the consultation notes the distinction as being that existing actors will plan their own assets while RSPs would

² [Network Development Plan - SP Energy Networks](#)

focus on their coordination and coherence (ensuring common starting points, facilitating dialogue and creating the regional whole system strategic plan).

As outlined above, electricity network planning involves engineering, power systems analysis and optimisation. In order for the RSP to assimilate and analyse data that would allow it to coordinate network development (presumably with other energy vectors) and achieve coherence (presumably between regional and national plans), it would necessarily require duplicate skillsets, systems and analytical tools that DNOs possess.

There will also be duplication in stakeholder engagement and information requests given DNOs and RSPs will require the same inputs for the production of network development plans and regional whole system strategic plans. For example, DNOs and RSPs would need to engage with local authorities on local area energy plans.

There is no consideration in the consultation of the inefficiencies borne out of the layers of duplication mentioned above. We encourage Ofgem to reassess its view that there will be limited duplication and to properly account for it in an impact assessment.

3. Bureaucracy

We anticipate, given the proposal to make RSPs regulated entities, that these bodies would carry licence obligations to ensure regional whole system plans are efficient, economic and coordinated. Placing that accountability with RSPs will inevitably give rise to additional layers of bureaucracy placed on DNOs and other local actors. There is no exploration of this risk in the consultation.

In addition, the proposed responsibility on RSPs to ‘facilitate dialogue’, enforces rigidity on the timetabling of discussions and makes the RSP a bottleneck in the process of information gathering. The requirement on RSPs to have dialogues with multiple energy vectors makes the risk of the entity becoming a bottleneck more acute.

With respect to decision-making, we would have to assume that the FSO will need to corral regional plans with national ones to ensure coherence between local and national plans before RSPs are able to confirm planning assumptions that intra-region DNOs need to be consistent with. This is likely to lengthen the process of establishing an electricity network plan and seemingly introduces unproductive time in network development planning as DNOs await confirmation of critical planning assumptions.

4. Systems and data

The centralisation of regional planning will potentially drive a requirement on DNOs to transform proprietary systems and data management infrastructure in order to interface with RSPs. We note that Ofgem’s Data Best Practice Guidance and Digitalisation Strategy and Action Plan sets out intentions to introduce a data catalogue to improve the visibility of data assets and to further open data. Open data will not support new players without a detailed knowledge of the assets themselves and the networks in which they operate.

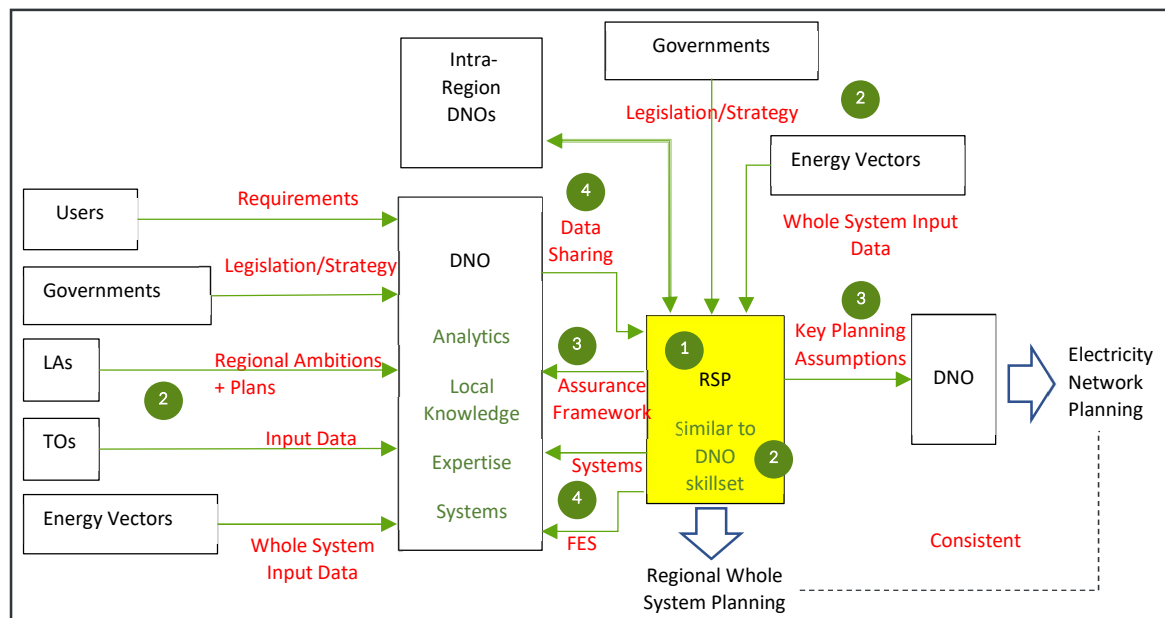
Any central planning entity must modify its systems and data management to be compatible with each DNO. The onus and cost of ensuring interoperability with the

RSP is likely to fall on local actors. If new changes are implemented that impact DNOs, the relevant IT funding will be required to be provided through the regulatory price controls.

We anticipate that the implementation of RSPs would trigger another subset of industry-wide transformation activity alongside others already in flight or proposed (Mandatory Half-Hourly Settlement, smart metering implementation programme and centralised market facilitation of flexibility). Sector-wide IT transformation, as seen with Project Nexus, requires time, complex coordination and assurance.

It would be reasonable to assume that systems and data transformation programmes undertaken to introduce RSPs could face other complications such as the scarcity of IT expertise.

Figure 1 – Notional regional system planner operating model (SPEN developed figure)



Q2. What are your views on the detailed design choice considerations described?

Design considerations covered in the consultation require the RSP to:

- Be independent
- To possess a remit which enables it to look across the energy system and be accountable for it
- To be a focal point between a group of interacting organisations
- To be able to generate outputs that will be used to justify system/network need in the Distribution price control process

We don't believe these considerations are sufficient. Aspects related to the points we have raised in Q1 should require the RSP to have:

- A track record in the delivery of large-scale IT and digital transformation programmes.
- Resourcing strategy and talent pool that can be scaled up quickly. The responsibility to establish regional centres that are able to interface sustainably, effectively and at pace with DNOs requires access to power systems engineers and the ability to scale up quickly.
- Credible distribution network knowledge base. This consideration is necessary to ensure that entities with credible distribution network design skills are given authority to determine critical planning assumptions.

A further design consideration should be the retention of Ofgem's existing duties. We believe it is important that this role is not encroached upon. We believe that reliance on the FSO to provide technical analysis and advice to support price control decision making could weaken Ofgem's command of network regulation. Ofgem's ability to challenge information presented to it by the FSO is likely to diminish considering the vast amount of planning data the FSO would have as national and regional strategic planner.

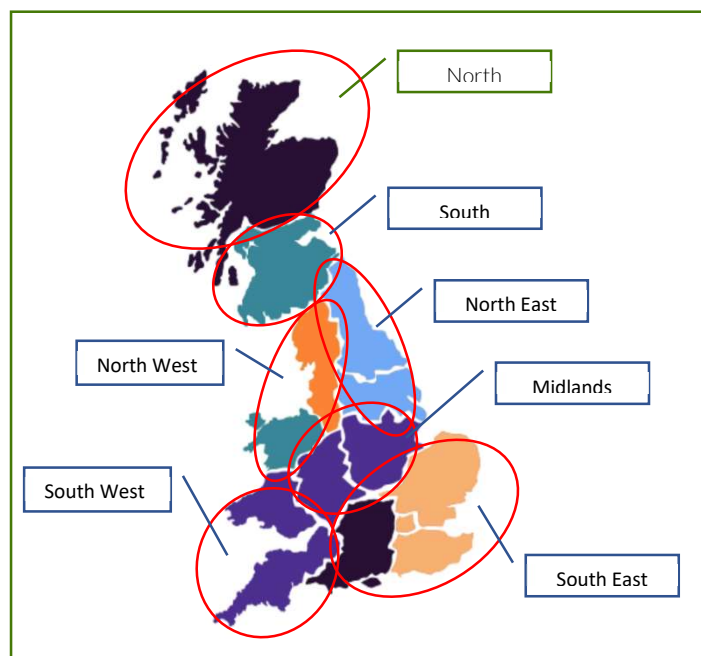
Q3. Do you have views on the appropriate regional boundaries for the RSPs?

Regional boundaries based broadly on the ESO's seven (black start) restoration zones seems a reasonable starting point. Figure 2 below illustrates these zones overlaid on DNO ownership boundaries.

However, seven RSPs would be cumbersome, disruptive, inefficient and expensive. A possible combination of zones that minimises DNO groups interfacing with different RSPs could be:

1. Scotland,
2. South East,
3. South West and
4. Central (Midlands, North West, North East combined)

However, the concept of such boundaries carries additional burden on DNO groups like ours that would have to interact with different RSPs as well as devolved and national governments.

Figure 2 – Restoration zones overlaid on DNO boundaries**Q4. Do you agree that the FSO has the characteristics to deliver the RSPs role? If not, what alternative entities would be suitable?**

We do not agree.

Currently, the ESO is required to plan, develop and operate the National Electricity Transmission System in accordance with the System Security and Quality of Supply Standard and its licence. Its analytical capabilities are focussed at the transmission level where system studies and ability of the Electricity National Control Centre to operate the national grid do not require visibility of power flows beyond grid supply points. It is logical for the ESO to have a degree of influence on network development at the transmission level.

We also note that the FSO's statutory functions set out in the current draft of the Energy Bill are limited to activities relating to the transmission system. Unless the legislation is amended as it passes through Parliament, it does not give effect to any expansion of the FSO to carry out strategic planning in relation to the development of the distribution system. It would introduce considerable delay and uncertainty as to when this policy could be implemented if further primary legislation is needed.

The FSO will be formed from the ESO and take on all the main existing roles and responsibilities of the ESO³. However, the ESO does not have sufficient experience of operating distribution networks and lacks familiarity with the characteristics of low voltage equipment and systems to influence distribution network development. Aspects of distribution networks that may be unfamiliar to the ESO include network

³ Future System Operator: government and Ofgem response to consultation (publishing.service.gov.uk)

configuration, power flows, protection and communication systems, restoration procedures and local planning requirements. These are gaps that undermine the FSO's ability to credibly and effectively influence strategic planning of the distribution network. The FSO is not yet a legal entity and exactly how the FSO will be organised and incentivised remains unclear. The addition of another responsibility to an organisation that is yet to be legally constituted and the expectation that as RSP it would be able to set up regional centres is premature, adds layers of uncertainty and assumes the FSO will be able to recruit distribution experts from scratch. Should the current ESO regulatory and incentive (ESORI) framework be applied to the FSO, we believe there would be a clear conflict of interest for an organisation with financial incentives to mitigate constraints being given extensive influence over network planning. In its current form, the ESORI would present a credible risk of systemic bias towards constraint management over other consumer priorities in how the FSO might drive coordination and cohesion between local and national network development.

Given Ofgem's proposal that RSPs provide independent technical analysis and advice to support decision making, primarily within price control setting, we do not believe the FSO has the requisite knowledge base and resources, and strongly oppose the FSO being positioned as the lead option.

Opting for the FSO as the lead option to be a single 'expert' actor for regional energy system planning implies the following sweeping assumptions we disagree with:

- *the FSO has access to resources to set up regional centres. Power systems expertise is scarce and we believe the FSO may have to rely on sub-contracting to meet resourcing requirements. This would be a step backwards in establishing the credibility of RSPs and improving information asymmetry. No consideration is given in the consultation to a resourcing strategy for RSPs.*
- *the FSO is able to fund and establish regional premises without much difficulty.*
- *risks of the RSP becoming a single-points of failure in planning assumptions or cascading errors in its modelling to local actors are tolerable.*

DNOs with DSO capabilities are already positioned by their licence conditions and RIIO-ED2 investment plans to undertake whole system regional planning. Table 1⁴ below outlines DSO roles and activities that will be undertaken as part of these plans and highlights in Role 1 the expectation that DNOs will be expected to plan and develop the distribution network taking account of whole system outcomes. Ofgem should, at this stage, allow for DNO and TO plans that are already in flight to deliver improved coordination and cohesion before considering any need for institutional change.

⁴ [DSO Incentive Governance Document Consultation \(3\).pdf](#)

Table 1 – DSO roles and activities

Role	Activity
Role 1: Planning and network development	1.1. Plan efficiently in the context of uncertainty, taking account of whole system outcomes, and promote planning data availability.
Role 2: Network operation	2.1. Promote operational network visibility and data availability
	2.2. Facilitate efficient dispatch of distribution flexibility services
Role 3: Market development	3.1. Provide accurate, user-friendly and comprehensive market information
	3.2. Embed simple, fair and transparent rules and processes for procuring distribution flexibility services

Q5 Do you agree with our proposal for a single, neutral expert entity to take on a central market facilitation role? If not, why not?

We support the principle of central market facilitation of flexibility but do not agree with the proposals as described.

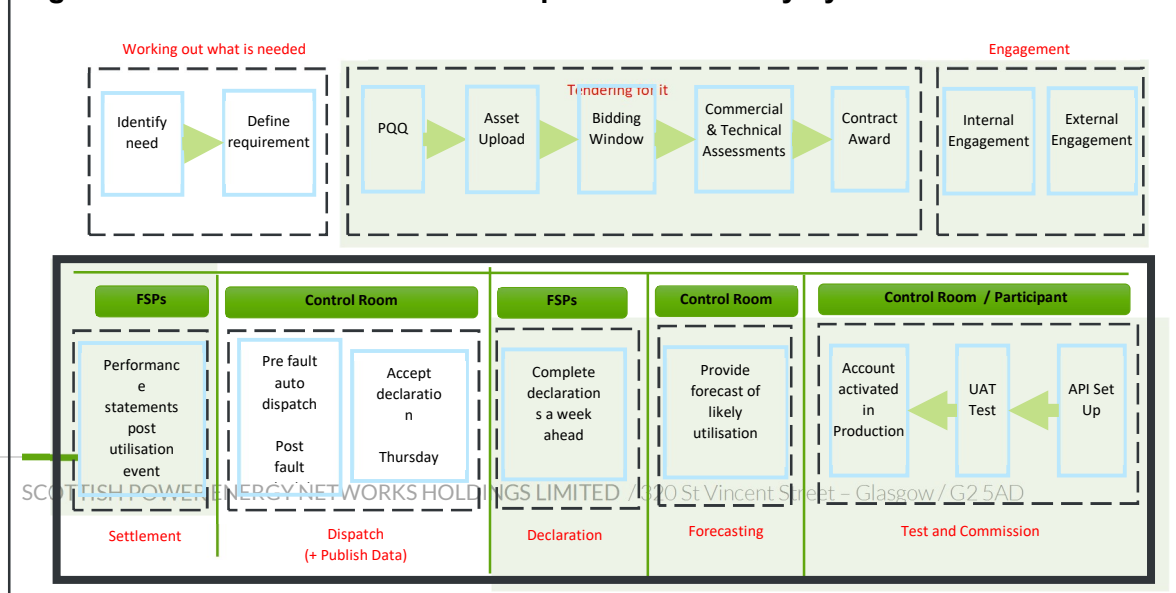
The proposals in the consultation lack detail and Ofgem's view that the FSO is the candidate that most aligns to characteristics required for the role is premature and unjustified.

Figure 3 below is an illustration of the systems and processes DNOs undertake to operate markets for flexibility and to dispatch service providers. The green shading in the diagram are aspects of DNO operations these proposals would centralise.

These are established processes underpinned by investments in systems, digitalisation and expertise. The transition from current arrangements to central market facilitation and the risks associated with stranded costs and dismantling these functions have not been explored in this consultation.

A clear roadmap and impact assessment working back from implementation of these proposals is needed in a follow-up consultation before Ofgem reaches any policy decisions.

Figure 3 – Market Facilitation and Dispatch of Flexibility by DNOs



Q6. Do you agree with the allocation of roles and responsibilities set out in Table 2? If not, why not?

No. The allocation in Table 2 should not be considered a blueprint at this stage.

Given the rudimentary nature of the current proposals, the allocation of roles and responsibilities should be considered indicative until Ofgem has had the opportunity to perform a wider assessment of the capabilities of actors beyond the FSO who may have the attributes to take on the market facilitator role or provide market enabling infrastructure and platforms.

Notwithstanding our view above, the proposed allocation of roles in Table 2 seems sensible. We note that testing and commissioning activities (see Figure 3) have not been listed in Table 2. We would advocate for these activities to sit with DNOs.

Q7. Are there other activities that are not listed in Table 2 that should be allocated to the market facilitator or other actors?

Commercial and technical assessments of Flexibility Service Providers should be included. These assessments are necessary to drive reliability of service provision and should be allocated to the Market Facilitator as it aligns closely with stakeholder engagement.

Q8 What are your views on our options for allocating the market facilitator role?

There are existing organisations such as Electralink, Elexon and Xoserve with market facilitation capabilities who are completely neutral but have not been mentioned in this consultation. No comparative analysis has been presented in the consultation to demonstrate why Ofgem considers the FSO to be the lead candidate.

Q9. Are there other options for allocating the market facilitator role you think we should consider? If so, what advantages do they offer relative to the options presented?

We believe Ofgem could delay allocation of the role until it has built industry agreement and consensus around standardisation of data, communication protocols and an evidence-based, low regrets pathway towards enhanced market facilitation of flexibility.

Ofgem should, if it pursues allocation of the role, invite expressions of interest to discover what the market has to offer and to gather intelligence on the spectrum of solutions that would meet the goals of centralised market facilitation of flexibility.

Q10. Do you agree that DNOs should retain responsibility for real time operations? If not, why not?

Yes. Keeping real time operations within DNOs ensures there is clear accountability for network reliability and safety. DNO control rooms take actions in real time and respond to unplanned outages in real time and should remain responsible for real time operations. DNOs have the power systems knowledge to operate the system in real

time, proven expertise and experience in maintaining network reliability and the ability to mitigate, respond and rectify safety risks on the network.

Q11. What is your view on our proposed approach to the undertaking of an impact assessment as outlined in Appendix 1?

In general, the approach Ofgem has taken of issuing these proposals and designating lead options before undertaking an impact assessment (IA) undermines the credibility of these proposals. Interim guidance in the Better Regulation Framework and as well as obligations on The Authority under the Utilities Act requires an IA to be part of policy development prior to the formulation of options.

Optimism bias appears demonstrably present in the proposed methodology as evidenced by statements such as those in A1.3 where Ofgem states that, “Following extensive engagement, our view of the proposed package of reform is that it would contribute to achieving significant benefits...”. We do not understand how Ofgem might reach such a view prior to a robust impact assessment being undertaken.

Identifying benefits

Ofgem needs to act objectively and transparently when it is allocating benefits to its proposals. Any Impact Assessment should take an objective view on the counterfactual position against any new arrangements.

Identifying costs

Transitional costs, as we have described in the notional operating model of Figure 1 and the dismantling of functions in Figure 3, will not be negligible. Cost efficiency for consumers would need to be considered as well given these proposals may lead to new overheads and network charges. We would expect this to result in increased costs to DNOs that would be required to be funded through the current price controls. However, an RFI to DNOs will only be useful if Ofgem is able to articulate in greater detail the end-state that it is seeking to achieve and a roadmap towards it. We are calling for a follow-up consultation that delivers this level of detail.

Q12. What is your view on the most appropriate measure of benefits against the counterfactual?

All the benefit generating outcomes listed in A1.13 – not ‘some’ as the consultation suggests – would take place under the counterfactual and these proposals. Ofgem should, in the first instance, determine if there are incremental benefits beyond the counterfactual and what these are before exploring how they should be measured.

We do not regard any qualitative assessment of potential benefits to be a sound basis for decision-making on policy interventions of this magnitude and call for them to be excluded from the IA.

Q13. How should we attribute these benefits between the governance changes in the proposed option, and other changes required to achieve the benefits? We particularly welcome analysis from bodies that have undertaken an assessment of benefits, specifically how those benefits might be attributed to different policy reforms that are required to achieve those benefits

We do not think attribution of benefits is possible on the basis of high level proposals. Ofgem should consult on more detailed proposals and operating models before attempting to attribute benefits.

Q14. What additional costs might arise from our governance proposals? We welcome views both on the activities that may arise and cause additional costs to be incurred, as well as the best way to estimate the size of the costs associated with those activities.

We have highlighted areas of additional costs (such as IT transformation, RSP resourcing and duplication) in our responses above. However, a follow-up consultation on operating models for these proposals would reveal a clearer spectrum of costs to implement these proposals. Once a clearer spectrum of costs has been provided, we would be happy to work with the Ofgem team to estimate the scale of such costs.

Q15. What additional costs may arise from sharing functions with several interacting organisations? We welcome views on set up cost, lost synergies, and implementation barriers.

As above.