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Sent by email to: [flexibility@ofgem.gov.uk](mailto:flexibility@ofgem.gov.uk)

Dear Victoria,

## **Call for Input: Future of local energy institutions and governance**

Thank you for the opportunity to respond to the above Call for Input. This is a non-confidential response on behalf of the Centrica Group.

We welcome this review into the effectiveness of institutional and governance arrangements. We agree there is a risk that the existing arrangements will not facilitate the effective and efficient delivery of Net Zero, for the reasons listed in the Call for Input.<sup>1</sup> We highlight:

- **The provision of connections is also a relevant energy system function given the synergies with network planning, market facilitation and real-time operation.**
- **Only some of the sample framework models will facilitate Ofgem's vision of effective delivery in the context of the transition to Net Zero.**
- **In the interim, the existing arrangements for electricity distribution can be improved to better mitigate conflicts of interest.**

## **The provision of connections is also a relevant energy system function given the synergies with energy system planning, market facilitation and real-time operation:**

The provision of connections should be treated as a relevant energy system function given the synergies and interdependencies with energy system planning, market facilitation and real time operation. Connections, and the resultant network use, directly and indirectly influence how networks are planned, developed and operated. For example, DNOs cited the expected increase in uptake of low-carbon technologies<sup>2</sup> as a primary driver of load-related network investment during the RIIO-ED2 price control. Other DNOs, such as SPEN, have proposed to use distributed energy resources to support supply to customers while faults are being repaired. The synergies between connections and the energy system functions identified in the Call for Input should be embedded in the future arrangements.

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<sup>1</sup> Page 4.

<sup>2</sup> E.g. heat pumps and electric vehicles.

**Only some of the sample framework models will facilitate Ofgem’s vision of effective delivery in the context of the transition to Net Zero:**

Some of the sample framework models presented in the Call for Input will not facilitate Ofgem’s vision of effective delivery in relation to the energy system functions considered relevant. The changes associated with Model 1 (*Internal separation of DSO roles within DNOs*) and Model 2 (*Independent Distribution System Operator(s)*) are limited to the electricity distribution sector. This means that neither model can effectively facilitate energy system planning that is coordinated across the energy system. Additionally, neither model can effectively facilitate energy system planning that informs and can be informed by wider energy planning activities.

Model 3 (*Regional system planner and operator(s)*) and Model 4 (*Interacting organisations*) were assessed against additional criteria we consider important for the effective delivery of Net Zero, such as the extent to which the proposed frameworks inherently mitigate conflicts of interest and ahead of investment or operational decisions being made. Also, we placed greater weight on cross-function synergies between energy system functions given their interdependence. Our assessment shows that Model 3 appears to be more appropriate when compared to the status quo and to Model 4. At this stage, our preference for Model 3 is provisional pending the publication of a cost-benefit analysis. Our assessment is presented in the attached appendix.

Model 3 can be improved by allocating the market facilitation role to the Future System Operator (FSO) as per Model 4, so that flexibility markets can be developed in a similar way with similar rules. There may also be a greater role the FSO can play in the enduring arrangements given the advantages identified in the Call for Input.<sup>3</sup>

**In the interim, the existing arrangements for electricity distribution can be improved to better mitigate conflicts of interest:**

Additional measures can be implemented in the interim until the enduring arrangements are being designed and implemented. The DNOs have proposed different approaches to delivering the energy system functions in RIIO-ED2. UKPN’s proposal appears to be the most ambitious in the context of mitigating conflicts of interest between delivering energy system function and its asset management and ownership activities.<sup>4</sup> UKPN’s proposal is similar to Model 2 but without the associated legislative, licence and code changes.

We are unaware of any barrier that should prevent wider adoption of aspects of UKPN’s proposal and, as such, aspects of UKPN’s proposal could be implemented across the electricity distribution sector in the short term. Priority should be placed on the sector-side implementation of those aspects of UKPN’s (and other DNOs’) proposals that seek to mitigate conflicts of interest, such as:

- a process that allows investment decisions, including when the DSO chooses a DSO service, to be challenged;
- transparency of the ‘merit’ order for flexibility and active network management for managing constraints; and

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<sup>3</sup> For example, see paragraph 3.17.

<sup>4</sup> The proposal includes legal separation of the Distribution System Operation (DSO) function and an operational agreement that governs the relationship between the DNO and DSO functions.

- an assurance function responsible for auditing compliance and facilitating an independent audit of investment decision-making processes.

We recommend that measures that are implemented in the interim are standardised so as to avoid unnecessarily creating operational inefficiencies for market participants and stakeholders.

We provide answers to the questions the Call for Input in the attached appendix. We hope you find these comments helpful. Please contact me if you have any questions.

Yours sincerely,

Gregory Edwards  
Network Regulation Manager  
**Centrica Regulatory Affairs & Policy**

## Appendix: Responses to questions

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### **1. Are the three energy system functions we outline (energy system planning, market facilitation of flexible resources and real time operation of local energy networks) the ones we should be focusing on to address the energy system changes we outline?**

We agree focus should be placed on the relevant energy system functions - system planning, market facilitation and real time operation – to address the energy system changes outlined in the Call for Input. Focus should also be placed on the provision of connections given the synergies and interdependencies with system planning, market facilitation and real time operation.

The provision of connections directly and indirectly affects how networks are planned, developed and operated. For example, the DNOs have proposed to increase load-related expenditure on their secondary networks by 202% for RIIO-ED2 relative to RIIO-ED1.<sup>5</sup> SPEN's proposed 431% increase is the largest. SPEN explained that:

- reinforcement of its low voltage networks to accommodate low carbon technologies (e.g. heat pumps and electric vehicles) and other distributed energy resources (DER) is a core driver of its load-related investment plan during RIIO-ED2;<sup>6</sup> and
- increased levels of connections activities will be triggered as a result of the outcome of the Access and Forward-Looking Charges Significant Code Review;<sup>7</sup>

SPEN also highlighted the ways in which DER can then influence how its networks will be operated e.g. providing flexibility services to manage constraints and to support supply to customers while faults are being repaired<sup>8</sup>. These factors illustrate that the synergies between connections and the relevant energy system functions should be embedded in future arrangements.

### **2. Do you agree with the criteria we have set out for assessing the effectiveness of institutional and governance arrangements?**

We agree with the criteria that have been set out. We have identified additional criteria that should be used for assessing the effectiveness of institutional and governance arrangements. These are:

- conflict-of-interest mitigation delivered by framework mechanisms;
- standardisation;
- whole-system and cross-vector delivery; and
- maximisation of functional synergies.

Each additional criterion is summarised below.

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<sup>5</sup> "RIIO-2 Challenge Group Independent Report to Ofgem on Electricity Distribution Business Plans"; page 17: <https://www.ofgem.gov.uk/publications/riio-2-challenge-group-independent-report-ofgem-electricity-distribution-business-plans>.

<sup>6</sup> SEP's RIIO-ED2 Business Plan for 2023 – 2028; page 12.

<sup>7</sup> SEP's RIIO-ED2 Business Plan for 2023 – 2028; page 82.

<sup>8</sup> SEP's RIIO-ED2 Business Plan for 2023 – 2028; page 69.

*Conflict-of-interest mitigation delivered by framework mechanisms:*

Existing arrangements do not sufficiently mitigate conflicts of interest or the impacts of those conflicts because:

- mitigating conflicts of interest relies exclusively on company behaviour – companies doing the ‘right’ thing - when the relevant decisions are being made;
- the perception of the existence of conflicts of interests could influence market participants to act in ways that do not maximise overall system efficiency; and
- it may not be possible to reverse the relevant decisions ex-post that are deemed to manifest a conflict of interest, thereby potentially resulting in consumer value being lost.

We believe the enduring arrangements should be designed to avoid the need to inherently rely exclusively on company behaviour to mitigate conflicts of interest and to reduce the perception of the existence of such conflicts. In addition, the enduring arrangements should be designed so that mitigation occurs ahead of or during the decision-making process rather than after the event. At this stage, independent ownership of the entities responsible for delivering the relevant energy system functions satisfies these requirements

*Standardisation:*

The DNOs have taken different approaches in some respects to implementing the DSO functions. For example, most DNOs currently use the Flexible Power platform to procure flexibility but, in RIIO-ED2, most intend to develop individual proprietary systems. Another example is the differing requirements placed on distributed generation when control and visibility equipment is required as part of the connection agreement (e.g. high-cost fibre optic cables). The differences in approaches could be problematic because they may lead to operational inefficiencies for network users and stakeholders that operate across multiple regional areas. The enduring arrangements should seek to minimise differences in regional requirements and processes.

*Whole-system and cross-vector delivery:*

In the Call for Input, Ofgem states:

*Strategic planning and effective coordination across the energy system can deliver significant consumer savings by making the most of available resources and technologies.<sup>9</sup>*

We agree strategic planning and effective coordination can deliver consumer value. It is therefore necessary that the extent to which future institutional and governance arrangements can facilitate whole-system and cross-vector delivery is considered.

*Maximisation of functional synergies:*

In the Call for Input, Ofgem identifies synergies within or across the relevant energy system functions. In the first instance, we prefer the design of the enduring arrangements to maximise across-function synergies. Maximising cross-function synergies may reduce implementation risk as there would be fewer interfaces to be designed.

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<sup>9</sup> Call for Input paragraph 1.3.  
Page 5 of 10

**3. Do you agree with our assessment of how far the current institutional arrangements are, or are not, well suited to deliver the three key energy system functions?**

We agree with the assessment.

**5. Do you agree with the opportunities of change we outline and the potential benefits they may create?**

We agree with the opportunities of change outlined and the potential benefits they may create.

**6. Are there additional opportunities for change and benefits that we have not set out?**

There are opportunities for change additional to those identified in the Call for Input. They are:

*Strengthening of the Coordinated Adjustment Mechanism in the network price controls:*

The Coordinated Adjustment Mechanism (CAM) is included in the RII0-2 network price controls to allow allowances and outputs to be re-allocated to another network company if a whole system solution is identified. However, there are two main weaknesses:

- participation in the delivery of a whole system solution is voluntary i.e. a network company to which allowances and outputs could be re-allocated can choose to not accept the re-allocation; and
- Ofgem did not give itself the power to trigger the mechanism or direct delivery, which would be a 'backstop' to ensure the whole system solution is delivered even if a network company initially chooses not to participate.

The mechanism should be strengthened so that Ofgem has the power to trigger the mechanism or direct delivery.

*Strengthening of the Whole Electricity System licence condition:*

The Whole Electricity System licence condition also does not place an obligation on a relevant network company to deliver a whole system solution which will not negatively affect its network and is in the interest of the efficient and economical operation of the total system. Instead, the relevant network companies are required only to "...use all reasonable endeavours to implement the identified opportunity...".<sup>10</sup> The licence condition should be strengthened to require delivery.

*Development of whole system licence conditions for the other network sectors:*

A licence condition that is equivalent to the Whole Electricity System licence condition should be introduced for gas network companies in the first instance.<sup>11</sup> In addition, a whole system licence condition that is agnostic to network sector should be explored.

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<sup>10</sup> "Whole Electricity System Guidance – Standard licence condition D17/7A: Licence obligations to ensure coordination and cooperation in planning and operating the whole electricity system"; page 8: [https://www.ofgem.gov.uk/sites/default/files/docs/2021/04/whole\\_electricity\\_system\\_licence\\_condition\\_-\\_guidance\\_0.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2021/04/whole_electricity_system_licence_condition_-_guidance_0.pdf).

<sup>11</sup> This would accommodate other network infrastructure such as hydrogen and carbon capture and storage.

**8. For each model, we have set out the key assumptions which need to be true for the model to offer the right solution. Which of these assumptions do you agree with?**

We agree with the key assumptions.

**9. Out of the framework models we have developed which, if any, offer the most advantages compared to the status quo? If you believe there is another, better model please propose it.**

Model 3 (*Regional system planner and operator(s)*) appears to be more appropriate compared to the status quo and to the other sample frameworks included in the Call for Input. We assessed the sample frameworks against two groups of criteria:

1. The extent to which Ofgem's vision of effective delivery can be facilitated: Models 3 and 4 improve coordination across network sectors and energy vectors. Models 1 and 2 do not improve coordination and, so, were no longer considered.
2. Additional criteria defined by Centrica: Models 3 and 4 better mitigate conflicts of interest and improve coordination. Model 3 promotes synergies across the relevant energy system functions whereas model 4 does not.

Our assessment is included below. Model 3 can be improved by allocating the market facilitation role to the FSO as per Model 4, so that local, regional and national markets for flexibility could be developed in a similar way with similar rules.

*The extent to which Ofgem's vision of effective delivery can be facilitated:*

In the Call for Input, Ofgem defines its vision of effective delivery in relation to each of the three energy system functions considered relevant, the key elements of which are shown in Table 1. The suitability of each sample framework was tested according to the extent to which it could facilitate the key elements being delivered.

*Table 1: Ofgem's vision of effective delivery in the context of the transition to Net Zero*

	Key elements
Energy system planning	<ul style="list-style-type: none"><li>• coordinated across the energy system both at a local level and nationally</li><li>• informs and is informed by wider energy planning activities (such as transport, gas, heat, hydrogen and CCUS)</li><li>• coordinated between transmission and distribution</li></ul>
Market facilitation of flexible resources	<ul style="list-style-type: none"><li>• embedding simple, fair and transparent rules and processes for procuring flexibility services</li><li>• provision of accurate, user friendly and comprehensive market information</li></ul>
Real time operation of local energy networks	<ul style="list-style-type: none"><li>• managing planned and unexpected technical issues on the network</li><li>• conflicts between market instructions or consumer choices need to be surfaced and dealt with and primacy rules must be in place</li></ul>

All of the models can inherently facilitate effective delivery in relation to the market facilitation and real time operation functions. Models 1 and 2 do not improve energy system planning because the changes are focussed entirely on the electricity distribution sector – these models do not

materially improve coordination across network sectors, energy vectors or at the local and national levels. We conclude Models 1 or 2 should not be given further consideration and the enduring governance arrangements could be based on Models 3 or 4.

*Table 2: Assessment of the sample frameworks against Ofgem's vision of effective delivery in the context of the transition to Net Zero*

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
Energy system planning	<ul style="list-style-type: none"> <li>• Does not facilitate Ofgem's view of effective delivery</li> <li>• No material increase in coordination across network sectors and energy vectors</li> </ul>	<ul style="list-style-type: none"> <li>• Does not facilitate Ofgem's view of effective delivery</li> <li>• No material increase in coordination across network sectors and energy vectors</li> </ul>	<ul style="list-style-type: none"> <li>• Ofgem's view of effective delivery can be facilitated</li> </ul>	<ul style="list-style-type: none"> <li>• Ofgem's view of effective delivery can be facilitated</li> </ul>
Market facilitation of flexible resources	<ul style="list-style-type: none"> <li>• All models can facilitate Ofgem's view of effective delivery</li> </ul>			
Real time operation of local energy networks	<ul style="list-style-type: none"> <li>• All models can facilitate Ofgem's view of effective delivery</li> </ul>			

*Additional criteria defined by Centrica:*

The suitability of each sample framework was also tested against the criteria we identified in our response to Question 2. Models 3 and 4 better mitigate conflicts of interest because the independent ownership of the DSO function should largely eliminate inbuilt technical and risk bias towards asset solutions and removes the incentive to optimise financial returns at the group level. Models 3 and 4 also improve whole-system and cross-vector delivery because the institutional and governance changes extend beyond just the electricity distribution sector. However, neither of these models inherently results in standardisation across regions. A differentiating factor between Models 3 and 4 is that model 3 promotes synergies across energy system functions (which is preferable at this stage) whereas Model 4 promotes synergies within functions, as shown in Table 3. As a result, we conclude the enduring arrangements should be based on Model 3.

For comparison, Models 1 and 2 promote synergies across energy system functions. However, both models do not improve whole-system and cross-vector delivery because the institutional and governance changes are focussed exclusively the electricity distribution sector and do not inherently result in standardisation across regions. Model 2 better mitigates conflicts of interest because the independent ownership of the DSO function whereas Model 1 does not because of the common DNO/DSO ownership.



Table 3: Assessment of the sample frameworks against additional criteria defined by Centrica

	Model 1	Model 2	Model 3	Model 4
Mitigation delivered by framework mechanisms	•Weaker mitigation because of common DNO/DSO ownership	•Better mitigation because of separate DNO/DSO ownership and ex-ante mitigation	•Better mitigation because of separate DNO/DSO ownership and ex-ante mitigation	•Better mitigation because of separate DNO/DSO ownership and ex-ante mitigation
Standardisation	<ul style="list-style-type: none"> <li>•No model inherently results in standardisation across regions</li> <li>•Standardisation would have to be mandated</li> </ul>			
Whole-system and cross-vector delivery	•No material improvement in coordination because changes apply only to electricity distribution	•No material improvement in coordination because changes apply only to electricity distribution	•Improvement because coordination across network systems and vectors is increased	•Improvement because coordination across network systems and vectors is increased
Maximisation of functional synergies	•Across functions	•Across functions	•Across functions	•Within functions

## 10. What do you consider to be the biggest implementation challenges we should focus on mitigating?

A key issue that must be focussed on is overall ownership of and accountability for the design and implementation of the current arrangements. We recognise that regulatory and/or legislative routes to implementation will depend on the final form of the framework model and are not known at this stage. It is therefore necessary that Ofgem and the Government work closely together, to avoid unnecessary delays in progress.

## 11. Taking into account the varying degrees of separation of DSO roles from DNOs under framework model 1, do you consider there are additional measures we should consider implementing, in particular in the short term (e.g. changes in accountability etc)?

Additional measures can be implemented in the interim until the enduring arrangements are being designed and implemented.

The DNOs have proposed different ways of delivering the energy system functions in RIIO-ED2. Most proposals appear to rely primarily on company behaviour to mitigate conflicts of interest. These proposals are more closely aligned with Model 1 (see Figure 1). UKPN's proposal is the most ambitious in this regard: UKPN proposed to legally separate its DSO function and to develop a DNO-DSO operational agreement that governs the relationship between the two entities. UKPN's proposal is more closely aligned with Model 2 (*Independent Distribution System Operator(s)*). Model 2 is based on those features we consider desirable for mitigating conflicts of interest, as discussed in our response to Question 3.

Figure 1- Conflict-of-interest measures in various models

		Mitigation delivered primarily by:	
		company behaviour	framework mechanisms
Timing:	Ex-ante	<ul style="list-style-type: none"> <li>• RIIO-ED1 price control arrangements</li> </ul>	<ul style="list-style-type: none"> <li>• model 2</li> <li>• model 3</li> <li>• model 4</li> <li>• UKPN's RIIO-ED2 proposals</li> </ul>
	Ex-post	<ul style="list-style-type: none"> <li>• RIIO-ED2 proposals for all DNOs excluding UKPN</li> </ul>	<ul style="list-style-type: none"> <li>• Model 1</li> </ul>

We are not aware of UKPN's proposals being dependent on legislative, licence or code changes. As such, features of UKPN's proposal could be implemented across the sector in the short-term. Other specific measure that could be implemented in the short-term include:

- clear rules that govern the DNO-DSO interface that embed market neutrality;
- a process that allows investment decisions, including when the DSO chooses a DSO service, to be challenged;
- transparency of the 'merit' order for flexibility and active network management for managing constraints; and
- an assurance function responsible for auditing compliance and facilitating an independent audit of investment decision-making processes.

## 12. Are there other key changes taking place in the energy sector which we have not identified and should take account of?

We have not identified any other relevant key changes.

## 13. What do you consider to be the most important interactions which should drive our project timelines?

At this stage, we believe the enduring arrangements should be based on Model 3 but with the market facilitation role being allocated to the FSO as per Model 4. As such, the interactions with the implementation of the FSO, including the future allocation of roles, needs to be considered.