



## **REA response to Ofgem Call for Input: Future of local energy institutions and governance**

The Association for Renewable Energy & Clean Technology (REA) is pleased to submit this response to the above consultation. The REA represents renewable electricity, heat and transport, as well as Electric Vehicle charging infrastructure, Energy Storage and Circular Economy companies. Members encompass a wide variety of organisations, including generators, project developers, fuel and power suppliers, investors, equipment producers and service providers. Members range in size from major multinationals to sole traders. There are around 550 corporate members of the REA, making it the largest renewable energy and clean technology trade association in the UK.

### **Energy system changes to deliver the energy transition**

Ofgem propose that there are three local energy system functions (system planning, market facilitation of renewable resources, and real time operation of local energy networks) that are needed to address the net zero transition. Their views are summarised below.

#### **a) Energy system planning**

Energy system planning is the process of taking a forward look at the needs of the energy system and deciding what needs to be put in place to meet those needs. There is a need for coordinated energy system planning to inform the decisions on the most efficient long-term investments. Planning should be coordinated across the energy system both at a local level and nationally. Electricity network planning should both inform and is informed by wider energy planning activities (such as transport, gas, heat, hydrogen and CCUS), and network planning should be coordinated between transmission and distribution.

#### **b) Market facilitation of flexible resources**

This is the facilitation of markets used in distribution network management to procure flexibility services to alleviate constraints and support restoration of electricity on the distribution networks. This could evolve over time to include peer-to-peer and wholesale energy market trading. Effective delivery includes the provision of accurate, user friendly and comprehensive market information, that allows a diverse range of flexibility providers to respond to accurate market signals of system needs and drive the most efficient solution for the energy system, unbiased by commercial interests.

#### **c) Real time operation of local energy networks**

At distribution level, this means managing electricity flows on the distribution network in real time, including through dispatching distributed energy assets either directly or via aggregators. In carrying out network operation, DNOs must consider the potential for distributed energy resources' (DER) to both cause and alleviate network constraints.

Similarly, GDNs and heat network operators safely manage their gas and heat networks, respectively. Local operation can help maintain functionality of the system and ensure sufficient capacity is available on the distribution network. Effective delivery means the system will benefit from reliable, transparent operation with efficient decision making.

### Ofgem question

- 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?*

### Proposed response

The REA agrees that these are good high-level areas to focus on, but the functions ought to be better defined, particularly ‘energy system planning’. This is a very broad term, and it is unclear what this means in relation to key issues such as capacity constraints and enabling localised energy generation to be connected to the grid.

Our primary concern is that while it is appropriate for Ofgem to focus on these areas, this must be done in coordination with similar workstreams carried out by other bodies. We would, for example, encourage Ofgem to align the priority areas of this review with the Review of Electricity Market Arrangements (REMA) announced by BEIS in the British Energy Security Strategy. The functions for this review currently does not account for two areas covered by REMA, namely low carbon investment and wholesale market reform. We believe that the review should be more closely aligned to REMA’s focus areas.

### Criteria for assessing institutional and governance arrangements

In order to be confident these energy system functions will be delivered effectively, Ofgem proposes that the right institutions should own them, and the right governance arrangements should be in place to support them. They set out below the criteria that we consider need to be met for effective delivery of functions at a sub-national level.

- **Accountability:** There needs to be clarity on the roles and responsibilities being performed by institutions, with recourse for non-delivery.
- **Credibility:** Institutions are both trusted and perceived to be credible in delivering their respective roles and responsibilities.
- **Competence:** Institutions have the necessary skills and competencies to deliver their roles and responsibilities effectively.
- **Coordination:** There is effective coordination between institutions (not just at a sub-national level, but also with institutions at the national level), supported by robust engagement with stakeholders. A key consideration for the effectiveness of coordination will be the extent to which information exchange is enabled or hindered to support delivery of the energy system functions.
- **Simplicity:** Institutional and governance arrangements are simple, such that stakeholders, such as market participants, can engage with a given set of arrangements.

### **Ofgem question**

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

### **Proposed response**

Broadly, these seem to be appropriate criteria, though we do believe they require more detail, and propose that two new criteria are added.

On accountability, there will need to be clear indication of who institutions are accountable to, whether this be industry stakeholders, BEIS or another body. The plans will also need to outline who has the ability to judge 'non-delivery'.

With regards to competence, this needs to include ensuring bodies are appropriately resourced to deliver their KPIs. In the past, there has been concern that both Ofgem and DNOs have lacked sufficient human resources to fulfil their responsibilities, leading to long delays when considering distribution level connection applications. This issue is only likely to become more acute as applications for connections of decentralised low carbon generation increase, while also requiring further levels of distribution level reinforcement. A system should be in place for bodies to flag where they do not have necessary resources, particularly as DNOs need to be better resourced for the localised energy transition.

In relation to coordination, a wide range of stakeholders should inform any decision to create or reform institutions. All consultative exercises must be representative of the whole market, ensuring inclusion of smaller players from industry. Here, Ofgem should utilise trade associations in order to ensure that they receive input from the broadest range of stakeholders possible and not only larger, better-resourced companies. It may be appropriate to consider the establishment of a representative stakeholder advisory forums with potential for funded paid positions to help resource constrained smaller companies to take part.

We believe that two further criteria should be included to assess arrangements. First, that any new institutional or governance arrangements must be aligned with the development of the Future System Operator (FSO) and any arrangements that will be introduced alongside it. This relates to our primary concern on the need to broadly align workstreams at the national and local levels. Second, Ofgem should ensure that value for money is a consideration throughout proposals. Institutions must spend appropriately as costs are likely to be borne by consumers at some stage.

### **Suitability of current arrangements**

Ofgem's 2019 DSO policy paper recognised the value in DNOs developing DSO capabilities and driving the transition in the short term, but set out their intention to review governance arrangements in future to ensure they were fit for purpose in the

long term. They also set out that they did not consider that DSO would need to be performed by a single operator in future but could be performed by a range of parties. DNO RIIO-ED2 business plans submitted in 2021 were required to set out how they would deliver DSO energy planning, market facilitation and real-time operation. DNOs have increasingly engaged with local authorities and other industry actors as a result. Ofgem's view of the current governance arrangements are summarised as follows:

- **Energy system planning** – various actors currently carry out sub-national energy planning, including DNOs, GDNs and local authorities. Some local authorities have shown strong ambition but funding and technical skills constraints have made this challenging, and unable to impact local policy decisions as a result. DNOs have this skillset but have a potential conflict of interest towards electricity network-based solutions. Current approaches lack consistency and accountability for delivery of optimum whole system solutions.
- **Flexibility markets** – DNOs have begun to facilitate local markets for flexibility but the ESO does this at a national level. Ofgem consider that these should be coordinated at national and local levels. They raise a concern that these coordinated markets may be hindered by the different design and pace of DSO implementation. Unnecessary complexity may be introduced, presenting a barrier to entry and sub-optimal markets.
- **Real time operation of local energy networks** – the ESO, DNOs and GDNs each undertake real-time energy system operational activities. Operational coordination in real time may become more significant in future.

Each of these functions are closely related and could potentially be bought into one organisation to realise planning operational synergies. But there is a risk that change will take significant time and have a significant transition cost.

### Ofgem questions and proposed responses

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 broadly agree but would emphasise the need to coordinate reform concerned with plans to reform these areas within the Review of Electricity Market Arrangements to ensure that policy is coordinated.

4. *Overall, what do you consider the biggest blocker to the realisation of effective energy system planning and operation at sub-national level?*

Ultimately the largest barrier to effective system planning and operation at the sub-national level continues to be significant and localised grid capacity constraints that are causing long delays for grid connections. An ineffective queue management system is also holding up the release of capacity, as some developers sit of connection agreements without progressing projects.

These aspects appear to be a symptom of a lack of accountability in relation to developing and delivering local energy system planning. There is not a suitably authoritative independent strategic body that is responsible to design energy system planning. It is possible that in the future this gap will be addressed by the Future System Operator and Ofgem as the Strategic Body. At present, separate DNOs establish their own priorities and objectives through separate business models, albeit with reference to cross sector approaches established by the ENA. While this approach drives competition, more needs to be done to ensure greater direction and standardisation across the DNOs, so that there are clear lines of accountability with overlapping responsibilities resolved and a body responsible for ensuring that shared objectives are truly delivered.

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

Yes, we broadly agree. The paper proposes the opportunities of change are to secure clear accountability for energy system transition to net zero at a sub-national level and ensure that roles and responsibilities are assigned to the actors who are best placed to perform them.

Consideration of these opportunities for change should also be considered in relation to the decisions recently made by Ofgem on Energy Code Reform and where responsibilities and powers now lie.

In addition we do, believe that opportunities for change should be aligned with the development of REMA, the establishment of the FSO and the implementation of the Design and Delivery of Energy Code Reforms, as announced earlier this year. Otherwise, we risk further complication in terms of which actors are responsible to perform which roles.

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

We welcome the focus of the paper on cost effective decarbonisation and the delivery of net zero. We do, however, believe that greater focus should be placed on the benefits of the delivery of decentralised energy systems, and the benefits associated with energy systems in which consumers have power to shape the system itself. This includes opportunities for greater demand and consumption data aggregation allowing for the development of more sophisticated smart tariffs for the benefit of consumers and flexibility on the grid.

These benefits will be most easily realised by coordinated reform across the whole system.

7. *We set out a number of risks associated with change. Do you agree with these risks and the potential costs they create? Are there additional risks of change and costs that have not been set out?*

While the proposed changes are positive, it does need to be recognised that any changes to governance arrangements or localised regulatory arrangements needs to consider impacts to existing investments and business models ,especially if revenue streams or previously granted grid connection arrangements are in any way impacted. Ofgem should provide assurance on how projects being developed under existing arrangements will either be protected or grandfathered and must ensure transparency about any possible impact to flexibility revenue streams that may be caused by proposed governance arrangements.

Second, while the paper does recognise that separation of DSOs may be complex and disrupt the delivery of net zero, it should highlight that DSOs have already set out their ambitions and priorities through the ED-2 Business Plan process. Given these are expected to be accepted and for RIIO-2 to provide funding for their implementation, the delivery of the proposals here will now need to be sensitive to the DSO workstreams already being commenced and should ideally serve to accelerate localised investments in grid systems.





### **Framework model for enduring arrangements**

Ofgem has produced four sample framework models for alternative institutional and governance arrangements. Each framework model focuses on an institution, or a set of institutions, to deliver the energy system functions they have identified, and includes the relationship between other relevant institutions. Table 1 below provides a summary of the four framework models Ofgem have developed including:

- Potential roles and responsibilities of the institution(s),
- Potential key features including geographic scale, vector coverage and ownership status of the institution(s),
- Key assumptions made in developing the framework model; and
- Ease of implementation of the framework model, which reflects the degree to which the option is in Ofgem's control to implement.

## Ofgem Call for Input: Future of local energy institutions and governance – REA response

Table 1: Summary of potential framework model options

	<b>Internal separation of DSO* roles within DNOs*</b> 	<b>Independent Distribution System Operator(s) (IDSO)</b> 	<b>Regional System Planner and Operator(s)</b> 	<b>Interacting organisations</b> 
<b>Roles</b>	DNOs continue to perform all DSO roles	New independent institutions take on some of or all DSO roles	New regional institutions take on some of or all DSO roles as well as wider cross vector planning roles	Roles are dispersed to create the clusters with the strongest functional synergies and existing core competencies
<b>Features</b>	Geographical scale: DNO Vector coverage: Electricity Ownership: Private	Geographical scale: Regional Vector coverage: Electricity Ownership: Public or private	Geographical scale: Regional Vector coverage: Energy system planning across electricity, gas and potentially other vectors eg heat Ownership: Public or private	Geographical scale: National, regional and/or DNO Vector coverage: Energy system planning across electricity, gas and potentially other vectors eg heat Ownership: Public and/or private
<b>Key assumptions</b>	<ul style="list-style-type: none"> <li>Three DSO roles are inextricably linked and must be performed by one electricity body</li> <li>Potential conflicts mitigated by internal governance measures</li> <li>Coordination takes place between institutions</li> </ul>	<ul style="list-style-type: none"> <li>Some or all DSO roles are inextricably linked and must be performed by one electricity body</li> <li>Independence of DSO from DNO is necessary to mitigate potential conflicts of interest</li> <li>Coordination takes place between institutions</li> </ul>	<ul style="list-style-type: none"> <li>DSO roles need to be carried out by a separate body to manage potential conflicts of interest</li> <li>There is a case for integrating planning across energy vectors at a sub-national level</li> </ul>	<ul style="list-style-type: none"> <li>Roles are most effectively delivered when within-function synergies are maximised, and assigned to the institution(s) with the competencies to deliver them.</li> </ul>
<b>Ease of implementation</b>	High to medium – Ofgem is able to deliver changes, in coordination with DNOs	Medium – requires primary legislation	Low – would require primary legislation and significant changes to electricity and gas networks, and roles of local government	High to low due to possible sub-variants. A 'base' model could assign roles without establishing new institutions, and would be fairly simple for Ofgem to implement. Alternatively, the creation of new bodies would require primary legislation

### Ofgem questions and proposed responses

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?*

For the most part we agree with the assumptions presented by internal separation of DSO role within the DNO, especially given that this has been the suggested directional of travels for some DNOs for some time. However, we recognise that that the analysis provided on the different models within this call for evidence is not particularly detailed and the assumptions could do with significantly more testing before any one model is actually committed to.

To do this, it would be worthwhile Ofgem reviewing previously considered modelled approaches, such as the 'Open Networks Future Worlds' produced by the ENA and Baringa. [1]

[1] <https://www.energynetworks.org/industry-hub/resource-library/open-networks-2018-ws3-14969-ena-futureworlds-aw06-int.pdf>

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.*

We believe further modelling is really required before determining which provides the most advantages to the status quo.

This analysis should form a key part of the governments REMA discussions and should also consider how any suggested model aligns with the development of REMA and Futuer arrangements for how the FSO and future code governance arrangements work.

- *What do you consider to be the biggest implementation challenges we should focus on mitigating?*

Further member input required.

*10. 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)?*

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

There is a need to recognise the link between power, heat, and transport systems. As we transition to a decarbonised system, there will be significant shifts in demand and consumer behaviour at the local level caused by the electrification of heat and transport. Institutional arrangements for energy system planning ought to take account of this.

The digitalisation of the energy system should also allow greater opportunities for distributed energy solutions and participation in energy markets, helping to deliver benefits. It is important that these developments are not constrained by centrally planned IT systems. Localised plans should allow for the aggregation of anonymised demand and supply data, providing the basis for flexible energy services to be delivered.

## **Next steps**

Ofgem propose to compile evidence on this subject during the first half of 2022 and commence stakeholder workshops in June 2022 (Stakeholders were asked to register by 10<sup>th</sup> May). They will then review the evidence and aim to reach conclusions in early 2023. If these conclusions require changes that are outside Ofgem's remit to implement then they will work with other Government Departments, devolved administrations and others to implement them.

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



## **Proposed response**

We believe that project timelines should be determined with awareness of the work of other bodies, namely the Future System Operator and BEIS, with regards to the Review of Electricity Market Arrangements. Ofgem must interact with these bodies, as well as local government and devolved institutions, to ensure local system integration into whole system energy plans.

A full-scale mapping of all current grid related workstreams across Ofgem, BEIS, National Grid ESO and the ENA is required to understand how these proposals fit with the large number of other changes expected to affect both localised and national level power grids in the coming years. Timelines for implementation need to correspond so as to avoid unintended consequences and keep all stakeholders engaged with the change process.