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06 June 2022

Dear Victoria,

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

Scottish Renewables is the voice of Scotland's renewable energy industry. The sectors we represent deliver investment, jobs, social benefits and reduce the carbon emissions which cause climate change. Our 300 members work across all renewable energy technologies, in Scotland, the UK, Europe and around the world. In representing them, we aim to lead and inform the debate on how the growth of renewable energy can help sustainably heat and power Scotland's homes and businesses.

Scottish Renewables welcomes the opportunity to provide our view on the proposals outlined in this consultation. We have responded to your individual consultation questions further below, but the following introduction provide a summary of our view.

#### **Introduction**

The transition to net-zero will see a rapid increase in decentralised energy resources and the role of integrated local whole energy systems, encompassing electricity, transport and heat. Ofgem's call for input highlights that DNOs propose to build their DSO capabilities to enhance sub-national energy planning and electricity flexibility markets. But these capabilities will overlap with local authority energy plans, gas distribution company plans, and other local planning initiatives. Also, DNO/DSO plans may have a conflict of interest, not include whole energy system e.g., transport or heat initiatives, or take account of local economic and social factors.

We welcome the publication of Ofgem's call for input on the future of local energy institutions and governance. As the energy system transitions to net-zero, we agree with Ofgem that it is imperative that key energy system functions are performed by institutions with the appropriate capabilities and that there is clear accountability and coordination in the delivery of these functions.

The consultation seeks views on the effectiveness of institutional and governance arrangements at a local, or sub-national, level to support the delivery of net-zero at least cost. We agree with Ofgem's analysis that there are gaps in existing institutional accountabilities for sub-national net-zero delivery and there is insufficient coordination between the various actors across the national and sub-national energy system.

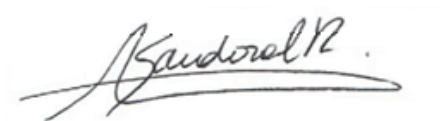
We support the reform of local energy institutions and governance. The net-zero ambition is driving the rapid expansion of distributed energy resources across all energy vectors, and local plans are needed to realise the benefits of coordination. We propose that the following key factors should be addressed if the coordination benefits from local energy planning and delivery are to be realised:

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- **Local input to plans and targets:** Sub-national 'whole system' energy plans to deliver net-zero must increasingly take account of local authority and stakeholder views, including those of distributed energy developers. Plans should be prepared locally wherever possible.
- **Building local capabilities:** For these plans to be prepared and delivered, the local or regional planning institutions must have the appropriate capabilities (and associated funding) to engage across the whole energy system and integrate with national plans.
- **Accountability and independence:** In advance of any legislative reform, sub-national and national institutions should be given expectations of their future role in seeking effective, and independent, coordination and delivery of net-zero aims.
- **A governance transition pathway:** These reforms cannot be delivered immediately. It will take time to build local capabilities and to change institutional responsibilities. A transition pathway is needed to a future where energy planning and delivery is increasingly locally-led.

Scottish Renewables would be keen to engage further with this agenda and would be happy to discuss our response in more detail.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Angeles Sandoval', with a long horizontal flourish underneath.

Angeles Sandoval  
**Policy Manager | Grid & Systems**  
Scottish Renewables

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

### **Consultation 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?*

We agree that these are the appropriate local energy system functions (energy system planning, market facilitation of renewable resources, and real time operation of local energy networks) that are needed to address the net-zero transition. We have provided our comments on each of these functions below:

### **Energy system planning**

We agree with Ofgem that energy system planning should take a forward look at the needs of the energy system and deciding what needs to be put in place to meet those needs. Energy system planning should be coordinated across the energy system both at a local level and nationally to inform the decisions on the most efficient long-term investments. This planning function should address the needs of the whole energy system, across power, transport and heat, and also extend behind the meter into customer premises.

While Ofgem's focus for this consultation is on electricity distribution network planning, this 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.

We consider that sub-national and local energy system planning is critical for the design and delivery of the future energy system, but this is a vast remit for which the planning scope or ambition is not well defined. Future plans must address the whole energy system, ranging across electricity, heat and transport and include the full consumption and production value chain including beyond the meter. To realise net-zero, this function must extend far beyond the proposed responsibilities, capabilities and remit of DNO/DSOs.

The Ofgem definition of local energy system planning does not appear to reflect the local energy planning landscape which must take account of many additional factors. These include local economic and social policy, and interaction with national policies, including those relating to energy, finance, planning, social and environmental policy. Energy and many other related policies are determined nationally and such changes can have significant interactions with local plans.

### **Market facilitation of flexible resources**

Ofgem propose this function as 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. It is proposed this could evolve over time to include peer-to-peer and wholesale energy market trading.

We welcome that effective delivery proposes 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.

We welcome the development of flexibility markets that allow distributed energy resources to access and compete in DSO-led flexibility markets, and also in national markets including wholesale and balancing. However, for these markets to be effective, Distributed Energy Resources (DER) will need simple, low cost access to deliver the desired benefits from these competing resources. We would suggest that there needs to be a high degree of market design standardisation nationally to deliver

these markets. In order to attract DER resources into these markets, it will be important for DNOs to provide price signals that attract investment in this capability.

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

Ofgem define this as managing electricity flows on the distribution network in real time, including through dispatching distributed energy assets either directly or via aggregators. Ofgem propose that DNOs must consider the potential for DER to both cause and alleviate network constraints.

Ofgem include GDNs and heat network operators in this function, where these parties safely manage their gas and heat networks. We welcome their inclusion but note that electricity, gas, and heat networks appear to have very limited interaction in their real time operation activities.

We agree that local operation can help maintain functionality of the system and ensure sufficient capacity is available on the electricity distribution network. Effective delivery means the system should benefit from reliable, transparent operation with efficient decision making. We suggest that its appropriate to prioritise the governance of real-time operation of electricity networks as this is likely to be the primary enabler of the energy transition.

## 2. Criteria for assessing institutional and governance arrangements

### Consultation question

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

We agree that it is important for these energy system functions to be delivered effectively, then the right institutions should own them, and the right governance arrangements should be in place to support them. Overall, we agree with the assessment criteria that Ofgem propose to gauge effective delivery of these functions at a sub-national level. We have added our specific comments on these below, together with suggestions for additional criteria.

- **Accountability:** We agree there needs to be clarity on the roles and responsibilities being performed by sub-national institutions, with recourse for non-delivery. But this accountability must both be for delivering against individual institutional responsibilities, and for coordinating with other accountable parties within the whole energy system. If not, then an ineffective silo approach to delivery may be perpetuated.
- **Credibility:** We agree these sub-national institutions should both be trusted and perceived to be credible in delivering their respective roles and responsibilities. In this regard, it will be important that these institutions are independent of conflicts of interest, and have credibility both locally, and across the whole energy system.
- **Competence:** We agree that sub-national institutions must have the necessary skills and competencies to deliver their roles and responsibilities effectively. There is a critical need for whole energy system capabilities to be developed at a local level, able to understand the key issues and participate in the broad and complex energy system issues.
- **Coordination:** We agree there must be 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. We agree that the effectiveness of coordination must be enabled by information exchange to support delivery of the energy system functions.
- **Simplicity:** We agree that institutional and governance arrangements are simple, such that stakeholders, such as market participants, can engage with a given set of arrangements.

We consider that two additional criteria should be added to this list. These are:

- **Independence:** in order to provide confidence and trust to market participants and local stakeholders, we consider that institutional independence from conflict of interest is critical. For example, a DSO may not seek flexibility or non-electricity network solutions if not in their owner's commercial interest.
- **Whole system perspectives:** as the decarbonisation of transport and heat proceeds alongside electricity decarbonisation, there is an increasing need for coordination and integration of plans and delivery of transition investments. It will be critical that local institutions are able to consider the future mix of energy sources and applications to enable decarbonisation at least cost.

Also, it is important to consider how all these criteria might apply over future time horizons. These assessment criteria might usefully include how these functions (especially for planning) may also be best joined up and addressed in the future rather than building on current institutional arrangements that were designed for a different energy system.

### 3. Suitability of current arrangements

#### Consultation question

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 note that Ofgem's 2019 DSO policy paper recognised the value in DNOs developing DSO capabilities and driving the transition in the short term but also set out an intention to review governance arrangements in future to ensure they were fit for purpose in the long term. We have provided comments on Ofgem's view of the current governance arrangements as follows:

**Energy system planning** - Ofgem comment that various actors currently carry out sub-national energy planning, including DNOs, GDNs and local authorities. We agree that some local or sub-national 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.

We agree that DNO/DSOs have a very relevant skillset for energy system planning but this is primarily electricity-focused and may have a potential conflict of interest towards electricity network-based solutions. We are concerned that DSO led approaches may lack consistency and accountability for delivery of optimum whole system solutions.

**Flexibility markets** - We recognise that DNO/DSOs have begun to facilitate local markets for flexibility, but the ESO also enables national flexibility and balancing markets. We agree that development of these markets should be coordinated at national and local levels and seek to avoid the different design and pace of DSO implementation. Unnecessary complexity and delays may be introduced, presenting a barrier to entry and sub-optimal markets.

**Real time operation of local energy networks** - We recognise that the ESO, DNOs and GDNs each undertake real-time energy system operational activities. Operational coordination in real time may become more significant in future as DER increase and participate more fully in energy markets.

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.

Overall, we agree with Ofgem's analysis of the current institutional framework and its suitability or otherwise to deliver net-zero at least cost. But the framework analysis mainly focuses on the energy system and institutions regulated by Ofgem. It does not reflect the need for coordination with other major local energy vectors. In particular, coordination with local transport decarbonisation planning appears to have been excluded.

#### Consultation question

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

We consider the biggest blocker to be a lack of accountability for developing and delivering local 'whole system' energy plans. There are too many bodies with overlapping responsibilities, but without shared objectives and accountability, and without the capabilities to plan and coordinate effectively. A siloed approach to accountabilities will restrict co-ordination.

This blockage may be exacerbated by incumbent energy utilities and energy providers that are developing and lobbying for energy plans around their preferred technology solutions and/or commercial self-interest.

### **Consultation question**

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

Yes, in part. 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. But the paper focuses mainly on benefits from organisational synergies across existing regulated companies. It does not appear to consider the other actors that could perform these roles.

We agree that these principles should allow boundaries to be redrawn for these roles and responsibilities so that they are targeted towards achieving a local cross vector approach to net-zero. Local actors are best placed to consider the cross-cutting opportunities and benefits across the energy vectors.

### **Consultation question**

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

The paper focuses on cost effective decarbonisation to net-zero. But there are other major local economic and social benefits that could be available. These include:

- Economic benefits – enhancing business investment, and protecting existing jobs and creating new ones through an effective energy transition plan
- Social benefits – by enabling lower cost energy supplies and cheaper network designs; improving air quality, reducing transport congestion, etc.,.

These benefits can be enabled by speeding up and simplifying access to energy networks, allowing distributed energy resources to access and trade resources in the energy system

### **Consultation question**

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?*

The Ofgem paper notes that separation of DSOs may be complex and difficult to realise and may disrupt the delivery of net-zero. However, DSO activities are still embryonic with funding not yet provided for RIIO-2. The 6 DNO groups are asking for a total of £900m in totex for the ED2 period, three times the equivalent expected spend in RIIO-ED1.

If granted, this expenditure is likely to fund a number of alternative technology, market and institutional arrangement designs. An uncoordinated approach runs the risk of building in legacy arrangements which may be unable to adapt to future needs, and potentially making it harder for future change to be implemented.





## 4. Framework model for enduring arrangements

### Consultation question

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?

Ofgem's four sample framework models for alternative institutional and governance arrangements are reproduced below.

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

Overall, we consider these to be broadly the right assumptions for this set of models. In particular, the analysis draws out how geographic scope and vector coverage of the institution(s) will be addressed, together with the ease of implementation. However, we would make the following comments on the alternative governance arrangements:

**Model 1 – internal separation of DNO/DSO roles.** Potential conflicts between network build and non-network solutions appear unlikely to be addressed by internal governance. We suggest there still needs to be independent assurance of decisions.

**Model 2 – independent distribution system operator (IDSO).** We suggest that the regional nature of the IDSO means that it must have a formal accountability to regional authorities for effective electricity and whole system regional coordination.

**Model 3 – regional system planner and operator.** We suggest that there should be formal accountability for the regional planner to integrate regional planning across energy vectors.

**Model 4 – interacting organisations.** While this model appears to best address the need for local/national coordination across all energy vectors, the base model appears to assume a high degree of informal coordination between interacting organisations, which may not be practical.

### Consultation question

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.



In order to deliver a locally-led whole system solution to achieve net zero with the greatest benefit, Models 3 and 4 appear to provide the best options. These could potentially take the form of integrated local energy plans with specified outcomes that are delivered by third parties. These are likely to be more challenging to implement in the short term, not just because new legislative obligations may be required, but because the capability for local integrated energy planning is not yet available.

While models 3 and 4 could require new institutions or governance arrangements to be formed, they may be most appropriate to hold the capabilities and accountability for energy system planning, with the activities for flexibility market and real time operation being delivered by third parties under appropriate oversight/contracts.

### **Consultation question**

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

A key implementation challenge would appear to be the capability gap, where new skills and capabilities are required by a wide range of institutions to address whole system energy system planning and delivery. The need to create local or regional organisation and/or governance is likely to take time to implement and they will face a rapidly changing energy landscape.

A further challenge will be setting a common policy direction, joining up the Central Government net-zero policies so that they can be delivered on a regional basis, and by giving mandates to local authorities and institutions to deliver this policy taking account of key local factors.

### **Consultation question**

*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)?*

In the near term, it might be possible for Ofgem (perhaps together with Central Government) to place an obligation on energy network companies to work with local authorities to prepare coordinated local whole energy system plans to deliver a cost-effective net-zero goal. This would require local authorities to be appropriately funded to participate in this process, and Ofgem and/or Central Government to introduce an appropriate approval/compliance framework.

### **Consultation question**

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

The digitalisation of the energy system should allow greater opportunities for distributed energy solutions and participation in energy markets, helping to deliver benefits. Using data to optimise existing energy infrastructure should also deliver benefits. We suggest that these developments should be enabled by the proposed governance reform arrangements.

## **5. Next steps**

### **Consultation question**

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

We welcome that Ofgem recognises that if consultation 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.

We consider that interactions with local government/devolved administrations to define the accountability, capabilities, and coordinating governance will be critical to enable them to develop local 'whole system' energy plans. In addition, interactions and agreement with UK Government Departments are needed to enable this local energy governance framework.

This governance reform is likely to take time to implement and potential benefits may be lost through delay. We suggest that Ofgem should urgently identify no-regrets actions to enable integrated local energy plans which can be pursued in advance of a major institutional or governance reform.

In addition, recognising that changes will take time to implement, we suggest that a longer-term pathway of institutional reform is developed, which increasingly seek to realise the benefits from local whole system coordination, with clear local and national accountabilities in this regard.