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Regional Energy Strategic Plan (RESP) policy framework consultation¹

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Summary

Energy Systems Catapult welcomes the opportunity to respond to Ofgem's consultation on the RESP policy framework. The Catapult was set up to accelerate the transformation of the UK's energy system and ensure UK businesses and consumers capture the opportunities of clean growth. The Catapult is an independent, not-for-profit centre of excellence that bridges the gap between industry, Government, academia, and research. We take a whole systems view of the energy sector, including in policy design and implementation, helping us to identify and address innovation priorities and market barriers, to decarbonise the energy system at the lowest cost.

Our key points:

- We support the four guiding principles of being place-based, whole systems, vision-led, and proactive. Democratic accountability needs to be embedded within the RESP process. We propose a fifth principle on **inclusivity and equality** to ensure the RESPs support a just transition.
- It is critical that the RESP enables an **adaptive and agile planning approach**, which is needed for infrastructure planning under uncertainty.
- It should be recognised the **local areas are at different stages** of developing local energy plans. It is essential that areas which have not previously had the support to progress such plans are not left behind or without a voice on the Strategic Boards. Equally, those with more progressed plans should be supported to share lessons learned and good practice.
- Ofgem should **ensure that individual network companies are incentivised** to bring network plans to the RESP that have considered whole system solutions, so that the RESP can focus on identifying residual whole system optioneering, rather than being the only organisation with a responsibility for driving whole system outcomes. This would avoid duplicating effort where a full reconciliation of approaches would otherwise be needed.

We provide a response to the detailed consultation questions in the annex. We look forward to further discussing the RESP framework with you.

Sincerely,
Katrina Young

¹ <https://www.ofgem.gov.uk/consultation/regional-energy-strategic-plan-policy-framework-consultation>

Response to consultation questions

Vision and guiding principles

1. What are your views on the principles (in paragraph 2.8) to guide NESO's approach to developing the RESP methodology? Please provide your reasoning.

We strongly support the four guiding principles for NESO's approach to developing the RESP i.e. being place-based, whole system, vision-led and proactive. A place-based approach is important as each local area is unique, and the right decarbonisation strategy will depend on the geography, building types, energy infrastructure, energy demand, resources, urban growth plans and low carbon ambitions and investment plans of communities and stakeholders.

RESPs need to incorporate whole systems thinking and modelling to ensure that the complex interactions between electricity, gas, heat, transport and industry are understood and capitalised on. To transform the UK energy system to achieve Net Zero carbon emissions by 2050, it is crucial to understand the costs and benefits of different technologies, system designs and decarbonisation pathways. The plans can't be robust without being whole systems, and need to enable confident decision making.

Being vision-led is important to guide the RESP activities towards regional decarbonisation whilst aligning with local and national priorities. Being proactive needs to enable taking an adaptive and agile planning approach which is critical for infrastructure planning under uncertainty.

We would propose to add a fifth principle of inclusivity and equality. The success of RESPs will depend to an extent on how local communities and people support the major changes ahead in our energy system. The transition to a smart decarbonised energy system has the potential to exacerbate existing inequalities unless justice is embedded in the RESP methodology. Democratic accountability will be important to empower society on the journey.

Strategic direction setting – supply and demand

2. Do you agree that the RESP should include a long-term regional vision, alongside a series of short-term and long-term directive net zero pathways? Please provide your reasoning.

Yes, we agree with the proposals. The long-term regional vision is important to provide clarity of direction for the energy system. A single short-term regional pathway can provide the confidence needed for proactive investment, and aligns with the government's ambition to have a decarbonised power system by 2030. Multiple long-term pathways can help with an adaptive approach and show a range of potential scenarios based on different regional and national actions. These can be adapted at regular refreshes in response to real-life changes in key drivers of system changes.

We suggest NESO consider whether the short-term pathway should recognise network capacity constraints to reflect the realistic options available in the immediate future. This should not preclude innovative opportunities for managing grid capacity. Aligned with the network operator's Future Energy Scenarios, we suggest the long-term pathways ignore capacity constraints to give a range of potential options.

3. Do you agree there should be an annual data refresh with a full RESP update every three years? Please provide your reasoning.

We are broadly supportive of an annual data refresh and a full RESP update every three years. It is good to align with the timelines of other plans such as the CSNP, and it is worth considering what else it could/should be aligned with e.g. SSEP and price controls. We would recommend clarifying what can be expected in the annual data refresh versus a full update to increase transparency and awareness of when data inputs will be gathered each cycle.

Strategic direction setting – identifying system need

4. Do you agree the RESP should inform the identification of system need in the three areas proposed? Please provide your reasoning, referring to each area in turn.

We broadly agree that the RESP should inform the identification of system need in the three areas. Consistent assumptions are important for the reconciliation of plans at different spatial levels and to have confidence in whole system needs. These need to be consistent across RESPs where appropriate (i.e. where there would not be expected to have regional differences), such as the assumed coefficient of performance of heat pumps. They also need to be consistent across other plans, including LAEPs, the SSEP and CSNP. Ideally there would be one source database holding this for all levels of plans to draw on to reduce avoidable uncertainties in analysis. The confidence in these assumptions need to be transparently explained and justified.

Setting out the spatial context for capacity needs should be visualised using open source/industry standard geospatial tools for transparency and interoperability. We anticipate this to be less granular than spatial analysis undertaken by network companies, but it will provide the bigger picture. Regional inequalities within each RESP region need to be considered, including less affluent areas and vulnerable consumers. Higher income areas typically experience higher early adoption rates of low carbon technologies. If projected infrastructure investment assumptions in the spatial context are based on existing demand patterns increasing, then there's a risk that some areas become excluded in the short-term pathway and the plans exacerbate the technology inequality.

Energy Systems Catapult is leading the [Inclusive Smart Solutions](#) programme, funded through the Net Zero Innovation Portfolio, which aims to better understand the barriers faced by low income and vulnerable (LIV) consumers in the transition to a smart, flexible energy system, and develop innovative solutions to facilitate increased participation of LIV consumers in a smart energy system. When available, the learnings from this programme should be considered to support more inclusive demand growth projections.

The RESP can provide the oversight at the regional level to inform strategic network investment and take a role in identifying locations for strategic investments. This can identify opportunities across local authority boundaries and attempt reconciliation of national targets with local priorities and circumstances.

Technical coordination

5. Do you agree technical coordination should support the resolution of inconsistencies between the RESP and network company plans? Please provide your reasoning.

We agree that technical coordination should support the resolution of inconsistencies between the RESP and network company plans. Technical coordination is expected to look at the coordination and alignment of plans, identify the opportunities for integration within regions and across boundaries, and maximise optimisation. Conflicts across vectors are likely initially and negotiations will need to be supported by the RESP.

Ofgem should ensure that individual network companies are sufficiently incentivised through the price controls to bring network plans to the RESP that have considered whole system solutions, so that the RESP can focus on identifying residual whole system optioneering, rather than being the only organisation with a responsibility for driving whole system outcomes. This would avoid duplicating effort where a full reconciliation of approaches would otherwise be needed.

Our experience as technical advisor to the Welsh Government in support of their Local Area Energy Planning programme highlighted that there is a wide variety of technical and modelling approaches, resulting in various inconsistencies between LAEPs developed in different areas. So whilst technical coordination is important, we also recommend that clear and specific guidance is provided to network companies to standardise approaches, with the objective of managing the volume of inconsistencies that is expected to result without such an approach. This has a clear link with item 7 - Inputs to the RESP.

6. What are your views on the three building blocks which come together to form the RESP in line with our vision? Are there any key components missing?

Not answered

Inputs to the RESP

7. Do you agree with the framework of standard data inputs for the RESP? Please provide your reasoning.

We broadly agree with the framework of top-down national inputs and bottom-up local data. A framework of standard data inputs for the RESPs is important to provide transparency for how the RESPs will consider various sources of information. The RESPs need to be multi-vector but should not attempt to be an all-utility masterplan.

Where areas have, or have started a Local Area Energy Plan, this can help with providing input data as a lot of the data listed in the inputs will already have been collated for the LAEP. For example, the LAEP process will see engagement with local and community energy groups and projects and can help facilitate information transfer for the RESP.

Where local data is not available, the RESPs will need to make certain assumptions. These need to be consistent across RESPs where appropriate (i.e. where there would not be expected to have regional differences), such as the assumed coefficient of performance of heat pumps. They also need to be consistent across other plans, including LAEPs, the SSEP and CSNP. Ideally there would be one source database holding this for all levels of plans to draw on to reduce avoidable uncertainties in analysis.

Where possible data inputs should be of a consistent format and interoperable, aligning to data best practice principles. The industry suffers from a lack of data sharing which presents challenges in the ability to manage the increasing complexities of the future system. Energy Systems Catapult has [recommended a Digitalisation Orchestrator](#) is appointed and responsible for coordinating the sectors' shared digital energy system infrastructure, this would include Data Sharing Infrastructure (DSI) but also extend to triaging digital monopolies within the sector. We recognise NESO is well positioned to act as interim DSI coordinator and would expect RESP to be a subsequent use case for the DSI.

8. Do you have any suggestions for criteria to assess the credibility of the inputs to the RESP?

Assessing the credibility of inputs to the RESP will be important to establish confidence in the outputs. We agree that it would be reasonable to require higher confidence levels for inputs to the short-term pathway compared to the long-term pathways, recognising the trade-offs in resource and time needed to establish very high confidence levels.

Various types of local energy plans exist, some of these are based on identifying what *could* be delivered locally, based on assessing project opportunities from the baseline of today's energy system, or on a high-level modelling of future scenarios. The Local Area Energy Planning methodology includes a whole system scenario modelling and pathway planning approach, which entails more detailed scenario modelling and optimisation, to determine what *should* be delivered to achieve Net Zero on time, and in line with priorities such as cost and co-benefits.

This involves modelling to the building level, to look at a range of possible future scenarios, to determine what interventions reoccur and can be considered low regret, for example. Credibility of local plans as RESP inputs should consider the extent to which they are based on this kind of detailed scenario analysis, to ensure that they reflect a more optimised, coherent and whole system plan for the area.

There should also be consideration of how confidence in delivery can be assessed as part of credibility. Not all projects or developments in local inputs may be as likely to proceed, for example projects represented in a LAEP. These plans should clearly indicate which projects fall within a near-term time horizon which relates to the RESP process and the level of service that stakeholders expect and value. There could also be a role for a framework and set of criteria which can more transparently be satisfied by local inputs to quantify delivery confidence. This may include, for example, whether investment and planning permission are secured. The core of any framework should be focused on enabling a consistent approach to investment decision making and allow for energy system pathways to be judged against a series of metrics with a common language to allow planners and decision-makers to assess and value the risk and benefits of investment.

Place based engagement

9. Do you agree with the framework for local actor support? Please provide your reasoning.

We agree with the place-based engagement principles of transparency, accountability, representation, and coordination. Transparency around what information sources will be fed into the RESP process when, is important to provide clarity on how place-based inputs will be considered and allow local actors the opportunity to participate.

The framework for local actor support needs to appreciate the different stages that local areas are at with the development of local energy plans, and the different levels of resources and capacity available. The RESP process needs to support a socially and “spatially just” Net Zero transition, and not exacerbate regional inequalities. Areas which have less developed local energy plans need support to avoid losing out on investment because they have not previously had the support to develop the evidence. Equally, areas further ahead should be supported to share their lessons learned and good practice with other local areas. [Net Zero Go](#) is available for all UK local authority teams working on Net Zero local energy projects and contains case studies and step-by-step guides.

Strategic Board

10. Do you agree with the purpose of the Strategic Board? Please provide your reasoning.

Yes, we broadly agree with the purpose of the Strategic Boards. The development of the RESP will be an iterative process and convening powers for collaboration and transparency will be important.

As NESO has ultimate decision-making powers over conflicts and signing off on the content of the RESP, there needs to be clear responsibilities and accountabilities for the members on the Strategic Boards. Some members of the Boards who will have a significant impact on the deliverability of the RESPs will be operating in a competitive environment and may have concerns over sharing information which needs to be managed.

11. Do you agree that the Strategic Board should include representation from relevant democratic actors, network companies and wider cross-sector actors in each region?

Yes, place-based democratic representation is essential to bring the public along the Net Zero transition. It will be important to strike the right balance between making sure local areas have a voice and keeping the size of the Strategic Boards lean enough to be functional. Lower tier local authorities not on the Strategic Boards will need to be supported with the resources needed to ensure their area is being represented.

There are existing governance systems at the local and regional level that should be considered when setting up the Strategic Boards. For example, the new Town Boards may be a helpful resource to draw upon but there needs to be coordination of actors across this space to avoid potentially contradictory and inefficient outcomes.

The expertise of network companies will be important for the success of the RESPs. However, for the efficient operation of the Strategic Boards, Ofgem should ensure that individual network companies are sufficiently incentivised through the price controls to bring network plans to the RESP that have considered whole system solutions, so that the RESP can focus on identifying residual whole system optioneering, rather than being the only organisation with a responsibility for driving whole system outcomes. This would avoid duplicating effort where a full reconciliation of approaches would otherwise be needed.

12. How should actors (democratic, network, cross-sector) be best represented on the board? Please provide your reasoning, referring to each in turn.

Not answered

Boundaries

13. Do you agree with the adaptations proposed for Option 1? Please provide your reasoning.

14. Do you agree with our assessment that Option 1 is a better solution than Option 2? Please provide your reasoning.

15. Do you agree a single region for Scotland is optimal? If you think a two-region solution is better, do you agree the split should occur at the SSEN and SPEN DNO boundary? If not, please provide your reasoning and alternative option(s)

Not answered