



Business Modelling Associates UK Ltd

Ofgem RESP Consultation Response

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General feedback:

- **Do you have any comments about the overall process of this consultation?**
 - We would only like to know what the follow up process after submission of the response. Will we be informed or brought into a discussion if the responses we have provided are valid and resonate with Ofgem stakeholders?
- **Do you have any comments about its tone and content?**
 - No.
- **Was it easy to read and understand? Or could it have been better written?**
 - Yes, the consultation was clear and easy to follow.
- **Were its conclusions balanced? Consultation – Regional Energy Strategic Plan policy framework 14**
 - Yes, all reasons were validated. The only point not explained in further detail is the point raised around the frequency of data refreshes and why more frequent data refreshes would not be more beneficial.
- **Did it make reasoned recommendations for improvement?**
 - Yes, recommendations for improvement were clear.

Q1. 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 agree with all the principles put forward by Ofgem aimed at helping guide NESO in the methodology and development of RESP's. However, we do believe further elaboration and clarity can be provided through more contextualised principles that specify the value for stakeholders should they adopt them when developing and adapting RESPs in the future. Please see below, our further elaboration on the principles and linkage to the value add in the RESP development and methodology process.

1. Be place-based – ensure a place-based approach is integrated into energy system planning.

There is no doubt that a place-based approach is essential to understanding the most optimal and cost-effective way to successfully transition to Net Zero by 2050. This is effectively communicated in the report through the establishment of regional boundaries and the specification of DNO and GDN territories within these regions, respectively. However, this needs to be taken further as the development of RESPs should also adopt a more granular and specific approach to temporal planning. Understanding the 'where' is only one element of developing an effective RESP, planners need to further understand which technologies must be invested in, when these technologies should be invested in and how much investment is required to ensure an effective Net Zero transition. Regional planners require insight into all these temporal elements given the long lead times

involved and benefits of engaging the supply chain in a timely manner. This provides them with the basis to derive data driven insights, support stakeholder communication and provide transparent validation of investment decisions. A place-based approach should not just be limited to geospatial boundaries but incorporate the identification of areas and the respective technologies available as investment options in these areas, quantify the cost associated with each region and indicate when the cost will be incurred. This is an optimal place-based approach that should guide the development of RESPs.

2. Be whole system – adopt a whole system perspective (i.e., gas and electricity, but also heat networks, transport and industry).

Adopting a siloed planning approach to achieving Net Zero by 2050 is no longer a viable option for energy stakeholders across the UK energy value chain. We agree that stakeholders need to adopt a whole system approach to energy in the transition to Net Zero. Most importantly this whole system approach must ensure an evidence-based view of the role to be played by each energy vector. This ensures all possible options are considered whilst providing a foundation to support fair and transparent stakeholder collaboration. A whole system approach will safeguard the energy sector by identifying the quickest, least risk and most cost-effective implementation pathway to Net Zero. Furthermore, we think a whole system approach should consider not only electricity, gas (both natural gas and hydrogen), energy networks (transmission and distribution of the energy vectors plus heat), transport, and industry but also it should consider those elements that could pose region-specific restrictions in the value chain such as water usage for electrolysis development.

3. Be vision-led – provide a clear long-term objective for energy system development that reflects a region's characteristics and sets agreed priorities for the region while ensuring alignment with national priorities.

Evidence-based collaboration and cohesive planning should be embedded throughout the Net Zero pathway, ensuring alignment and transparency as regulatory landscapes, environmental pressures and stakeholder objectives inevitably change. Regions will rightly have different pathways to Net Zero as well as different final Net Zero energy mixes due to physical, political, and social regional differences. These regional variations must be reflected in national plans as appropriate, while at the same time regional planners must ensure their respective regional plans are aligned to the national pathways to Net Zero. This coordination must be achieved in as dynamic and frictionless way as possible to ensure our pathway to the net Zero goal is never jeopardized.

4. Be proactive – enable proactive development of the energy system and investment in network infrastructure to ensure it enables net zero, while

remaining agile and taking an adaptive approach to account for uncertainty

Proactiveness is certainly a fundamental component to achieving Net Zero. However, it would be a false premise to consider a proactive approach as separate from an adaptive approach. Adaptive planning is not limited to agile reaction to changing events and uncertainty. Best practice adaptive planning is also proactive in accounting for uncertainty through the forward-looking exploration and development of core and alternative adaptive delivery pathways. Adaptive pathways include forward looking identification of key triggers that identify the circumstances that would require the plans of national, regional and local stakeholders to change. It is fundamental that planners understand in advance how 'committed' and 'future' investments into network infrastructure might adapt to ensure a least regrets pathway to our Net Zero goal is achieved.

Q2. 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.

We fully agree that although the long-term strategic view of a regions vision to achieve net zero is crucial, it must be supported and combined with a short-term view of immediate investments. These short-term investments need to be prioritised to ensure the correct foundations and technologies are in place to support the long-term strategy.

However, further emphasis can be placed on the adaptive capabilities of combining the short-term view with that of the long-term vision. As we know, circumstances change and plans very rarely go according to script. Sudden changes to the economic landscape, policies and regulation, environmental pressures and stakeholder interests are all factors that can impact progress and completion of the short-term goals. True adaptive planning is shown when stakeholders understand what has been committed and cannot be stopped and what can be altered and manipulated to not jeopardise the long-term goal. This should be referred to as optimal temporal planning, understanding what technology to invest in, when to invest, how much to invest and where (geographically) to invest it, both in the short-term and long-term view.

Q3. Do you agree there should be an annual data refresh with a full RESP update every three years? Please provide your reasoning

Although we agree with the combination of short term and long-term plans, we strongly urge a rethink of the frequency in which the report specifies data and plans should be

refreshed. Providing the most up to date data for all energy stakeholders supports optimal decision making, reduces delivery risk and ensures short term plans are constantly monitored and updated. We see no reason that more regular refreshes would not be possible assuming a modern, data-driven and technology enabled planning tool kit is used. It is our view that annual data updates and refreshes are not sufficient to provide the adaptive planning required to deliver clean power by 2030 or Net or Net Zero by 2050. We suggest data should be, at least, refreshed every 6 months, if not every quarter and that RESPs should be updated at least annually. This provides the necessary information to all stakeholders (developers, investors etc) to enable adaptive planning and delivery and ensure timely communication and coordination of network infrastructure delivery and supply chains.

Q4. 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.

Yes, the RESP (Regional Energy Strategic Plan) should inform the identification of system need in the three areas proposed.

1. Providing Consistent Adaptive Assumptions:

- The RESP should develop a set of common assumptions to be used across all regions. This includes profiles for low carbon technology use (e.g. electric vehicle charging and heat pump use), consumer behaviour profile changes over time, and profiles for the growth in flexibility provision (e.g. Demand Side Response and time-of-use tariffs). Consistent and adaptive assumptions are vital for translating low carbon technology growth projections into contributions to peak demand on the network, ensuring that network planning is based on reliable and uniform data inputs. The communication of reasoning and validation of changes to existing assumptions must take place to create a transparent, digital and collaborative element to the RESP.

2. Setting Out the Spatial Context for Capacity Needs:

- The RESP should include a spatial view of investment options and recommendations across the end-to-end energy value chain using digital tools that support the required temporal, spatial, and financial planning capabilities. The visualisation of investments will help align stakeholder plans and identify where additional network capacity is needed and where the network has headroom. By setting out the spatial context, the RESP can provide a clear picture of regional capacity needs, which is crucial for strategic network planning and investment.

3. Informing Strategic Network Investment:

- The RESP should take a directive role in identifying locations for strategic investments in line with the long-term vision for the region. Again, this must include the geospatial mapping of transmission, distribution, investment options and demand and generation growth projections. This approach ensures that investments are made where they are most needed to support the region's energy transition and net zero pathways. By providing a clear steer on system needs, the RESP supports coherent network planning and helps avoid inconsistencies in network company plans.

These three areas collectively ensure that the RESP provides a comprehensive and consistent framework for identifying system needs, and supporting effective and strategic energy planning across regions.

Q5. Do you agree technical coordination should support the resolution of inconsistencies between the RESPs and network company plans? Please provide your reasoning.

Yes, inconsistencies between the Regional Energy Strategic Plans (RESPs) and network operator plans can be identified and rectified through technical coordination, which plays a crucial role in creating alignment across regional stakeholders' investment plans.

1. Creating Alignment Across Stakeholders:

- Technical coordination will help ensure that all regional stakeholders, including local authorities, network operators, and other relevant actors, are working towards a common objective. This is achieved by integrating and analysing plans across different energy vectors (e.g., electricity, gas, heat) and identifying opportunities for system optimisation. By bringing these stakeholders together, technical coordination helps align their plans with the regional strategic direction set by the RESP.

2. Resolving Gaps and Inconsistencies:

- One of the key functions of technical coordination is to resolve any gaps and inconsistencies between the RESPs and network company plans. This involves whole system optioneering, which considers a range of technological solutions and ensures that strategic network plans are coherent and aligned with broader system needs. For example, if one area has strengths in renewable energy generation but weaknesses in storage capacity, technical coordination can help identify and implement solutions to balance these aspects.

3. Utilizing a Centralised Data Platform:

- A centralised data platform is essential for achieving alignment and transparency across regional plans. Such a platform can integrate vast datasets from various sources, providing comprehensive insights and actionable recommendations for sustainable energy development. By facilitating better synchronisation of energy strategies across different levels of governance, the platform supports the UK's goals for reducing carbon emissions and enhancing energy resilience.
- The platform should also provide the most up to date should also provide contain the most up-to-date information (as per the agreed data refreshing frequency), allow all stakeholders to see and sign it off, and provide real-time information standardised data exchanges, which are crucial for predicting outcomes and making informed decisions. This transparency in data sharing helps stakeholders understand each other's plans, strengths, and weaknesses, thereby filling gaps in technological inefficiencies and ensuring that investments are made where they are most needed.
- This platform should however be accessible such that other digital systems can access data and analytics and build on these through value-adding digital services.

4. Supporting Local Stakeholders:

- Technical coordination also involves supporting local stakeholders by providing them with the necessary resources, technical advice, and access to common digital tools and data. This support ensures that local plans are coherent with regional and national strategies, further reducing inconsistencies and enhancing the overall efficiency of the energy system.

Technical coordination creates alignment across regional stakeholders, identifies and addresses gaps in technological efficiencies, and supports informed decision-making through transparent data sharing.

Q6. 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?

The consultation outlines three primary building blocks that align with the overarching vision of the report in the following way.

- 1. Modelling Supply and Demand:** Regional demand profiles are subject to technical, political, economic and social preference factors. These need to be accounted for in the planning process, thus informing the supply requirements

to balance the energy system (comprising all available energy vectors). By doing so, the long-term regional vision will set thematic priorities and strategic net zero pathways. It includes short-term pathways and multiple long-term pathways that show energy supply and demand projections. This aligns with the vision of providing a clear roadmap for how local energy systems need to develop to reach net zero.

- 2. Identifying System Need:** By identifying the optimal demand-supply balance, the planning tool should aid in identifying the temporal and spatial needs of the system, including a pathway derived from the optioneering pool of available investments per region. Therefore, streamlining the planning process by prioritising those recommended investment options that represent a greater benefit to the system. This component provides information to guide system needs, including consistent assumptions and spatial context of projections. It also includes a narrative to steer strategic investment. This aligns with the vision of ensuring coordinated development of the system across multiple vectors and providing confidence in system requirements.
- 3. Technical Coordination:** This ensures a coherent set of plans (RESPs and network plans) that resolve gaps and inconsistencies and identify whole system opportunities. This aligns with the vision of enabling infrastructure investment ahead of need and supporting the transition to a net zero energy system in a cost-effective manner.

However, the consultation also highlights the need for further assignment of accountability at national, regional, and local planning levels to ensure data is maintained and kept up to date. Specific planners should be made responsible for specific tasks to drive speed, efficiency, and transparency in the planning process. This includes ensuring that local and regional stakeholders are actively involved in the process of case-making and assessment, and that there is clear accountability for the delivery of certain energy system functions.

Q7. Do you agree with the framework of standard data inputs for the RESP? Please provide your reasoning.

The framework specified in the consultation aligns with the vision of the RESP by ensuring that the plan is based on a robust set of data inputs, reflecting both national policy objectives and the specific characteristics of each region. By integrating these diverse data sources, the RESP can provide a clear and coordinated pathway to achieving net zero, supporting strategic investment and infrastructure development.

To enhance the efficiency and accuracy of data management, the RESP framework emphasizes the automation of data extraction and the use of advanced technology to gather, store, and interpret data. This approach ensures that data is consistently up-to-date and readily available for strategic decision-making. Automated data extraction reduces the manual effort required and minimizes the risk of errors, while advanced storage solutions ensure data integrity and security. Furthermore, sophisticated data interpretation tools enable more precise analysis and forecasting, which are crucial for effective energy planning.

However, it is fundamental that the data includes accurate cost data for each of these framework points. Accurate cost data is essential to ensure that the most cost-effective pathways to net zero are identified and pursued. Without precise cost information, there is a risk of underestimating or overestimating the financial requirements, which could lead to inefficient allocation of resources and potentially higher costs for consumers. Therefore, incorporating accurate cost data will help in achieving the overall vision of a cost-effective transition to a net zero energy system.

Q8. Do you have any suggestions for criteria to assess the credibility of the inputs to the RESP?

Criteria for Credibility of Data Inputs to the RESP

The RESP consultation outlines the importance of establishing credible data inputs to ensure effective and strategic energy planning. The following criteria should be seen as essential to assess the credibility of data inputs:

1. Consistency and Transparency:

- **Consistency:** Data inputs should be consistent across different regions and methodologies. This ensures comparability and reliability in the planning process.
- **Transparency:** The methodology and assumptions used in data collection should be transparent and well-documented. This builds trust and allows stakeholders to understand and verify the data sources.

2. Confidence Levels:

- **Short-term vs. Long-term:** Higher confidence levels are required for short-term inputs to ensure immediate reliability, while long-term inputs can accommodate broader assumptions and projections.
- **Confidence Intervals:** Confidence intervals should be placed on investment options in terms of environmental and social impact. This ensures that investments consider the end consumer perspective and

embed these considerations into infrastructure development for transitioning to Net Zero.

3. Cross-Sector Integration:

- Data inputs should reflect a holistic cross-sector view, considering interdependencies such as plans for heat networks, transport, and housing. This ensures the RESP represents regional characteristics accurately and develops an informed picture of energy demand and generation over time.

4. Local and National Data Integration:

- The RESP should aggregate top-down national inputs with local and regional data sources in a consistent way. This integration helps create a comprehensive and accurate regional energy strategy.

5. Stakeholder Engagement:

- The methodology should include a feedback process to enable the RESP to inform local plans and drive improved place-based outcomes. Engaging with local actors and stakeholders ensures that the data inputs reflect on-the-ground realities and local priorities.

6. Evolving Policy Considerations:

- The inputs should evolve over time, responding to changes in policy, such as developments in carbon capture and hydrogen technologies. This adaptability ensures the RESP remains relevant and up to date with the latest policy directions.

7. Accuracy and Reliability:

- Data inputs should be accurate and reliable, with clear documentation and validation processes to support their credibility. This includes ensuring that data sources are reputable and that data collection methods are robust.

Approval Process for Data Inputs

To ensure the validity of data, transparency, and alignment on which inputs are the most valid for energy planning, the following approval process should be implemented:

1. Validation by Stakeholders:

- Data inputs should be validated by national, regional, and local stakeholders. This collaborative approach ensures that the data is accurate, reliable, and reflective of various perspectives and priorities.

2. Transparency and Documentation:

- The validation process should be transparent, with clear documentation of the methodologies and assumptions used. This allows stakeholders to understand and verify the data sources and ensures accountability.

3. Alignment and Consensus:

- Stakeholders should work together to reach a consensus on which data inputs are the most valid for use in energy planning. This alignment ensures that the RESP is based on a robust and agreed-upon set of data inputs, supporting effective and strategic energy planning.

By adhering to these criteria and implementing a rigorous approval process, the RESP can ensure that its data inputs are credible, supporting the overall objective of achieving a cost-effective transition to a Net Zero energy system while considering the environmental and social impacts on end consumers.

Q9. Do you agree with the framework for local actor support? Please provide your reasoning.

Yes, the consultation outlines a robust framework for local actor support, which is essential for effective strategic energy planning. The framework for local actor support includes several key elements that contribute to each RESP building block, fostering collaboration and transparency.

1. Technical Advice and Training:

- **Contribution to RESP Building Blocks:** Providing technical advice and training ensures that local actors have the necessary expertise to contribute effectively to the RESP. This supports the building blocks of modelling supply and demand by ensuring accurate and informed inputs from local actors.
- This creates collaboration by equipping local actors with the skills needed to engage meaningfully in the planning process. Transparency is enhanced as local actors understand the technical aspects of energy planning, enabling them to contribute more effectively.

2. Coordination and Coherence:

- **Contribution to RESP Building Blocks:** Supporting coordination and coherence between local, regional, and national plans ensures that the RESP aligns with broader energy strategies. This is crucial for identifying system needs and ensuring technical coordination across different levels of planning.

- This element fosters collaboration by bringing together various stakeholders to work towards common objectives. Transparency is achieved through consistent and coherent planning processes that are well-documented and accessible to all stakeholders.

3. Knowledge Sharing and Good Practice:

- **Contribution to RESP Building Blocks:** Establishing a 'bank' of energy planning good practices supports the building block of identifying system needs by providing examples of successful initiatives. This helps in replicating effective strategies across different regions.
- This promotes collaboration by sharing knowledge and best practices among local actors. Transparency is enhanced as stakeholders have access to documented examples of successful energy planning initiatives.

4. Engagement and Support:

- **Contribution to RESP Building Blocks:** Coordinating and facilitating working groups ensures that local actors are actively involved in the RESP development process. This supports all building blocks by ensuring that local inputs are considered in modelling supply and demand, identifying system needs, and ensuring technical coordination.
- This creates forums for local actors to engage and share their perspectives. Transparency is achieved through regular meetings and open communication channels.

5. Adaptable Approach:

- **Contribution to RESP Building Blocks:** NESO's adaptable approach to engagement and support ensures that the RESP reflects the specific needs of each region. This is crucial for all building blocks, as it allows for tailored solutions that address regional characteristics and priorities.
- Allowing for flexibility in engagement strategies, ensuring that all stakeholders' needs are met. Transparency is enhanced as the RESP evolves to reflect changing regional contexts and priorities.

6. Place-Based Engagement:

- **Contribution to RESP Building Blocks:** Ensuring that each RESP is grounded in local priorities and aware of place-based interdependencies supports the building block of identifying system needs. This ensures that the RESP is reflective of regional characteristics and priorities.

- This involves local actors in the planning process and ensuring their inputs are considered. Transparency is achieved through clear documentation of how local priorities are integrated into the RESP.

Working Groups and Stakeholder Alignment

To ensure effective collaboration and transparency, working groups should meet four to five times a year. These regular meetings allow stakeholders to stay aligned with the progress of the plans and identify any investments that may be hindered. This proactive approach enables stakeholders to adapt the overall long-term plan of the RESP as needed, ensuring that the strategic energy planning process remains dynamic and responsive to emerging challenges and opportunities^{1 2}. For these regular meetings to delivery maximal value they should be aligned with updated of the regional plans (either full refreshes or interim updates of progress against plan).

By implementing these elements, the framework for local actor support ensures that the RESP is developed through a collaborative and transparent process, leveraging the expertise and inputs of local actors to create a robust and effective energy strategy.

Q10. Do you agree with the purpose of the Strategic Board? Please provide your reasoning.

Yes, the Strategic Board is essential to ensure transparency and accountability in the development of the Regional Energy Strategic Plan (RESP). It provides a foundation for conflict resolution and promotes a fair and transparent way of working, which is crucial for achieving an efficient transition to Net Zero. The Strategic Board facilitates coordination among key local actors, embedding democratic representation into the RESP process while maintaining clear accountability for regional energy strategic planning.

Additionally, the Strategic Board must hold stakeholders accountable for appointing representatives who will have specific responsibilities aimed at supporting the overall objective of the RESP. These representatives are expected to have the necessary expertise and authority to represent their respective areas effectively, eliminating any ambiguity in roles and responsibilities of energy stakeholders. Ideally any tooling supporting the RESPs should be flexible enough to inform the Strategic Board, for example with 'what if' scenarios and stress tests of the core regional pathways. This provides a foundation on which the Strategic Board can validate and support stakeholder engagement through transparency, and the incorporation of multiple stakeholder inputs across the various national, regional and local planning levels.

Q11. Do you agree that the Strategic Board should include representation from relevant democratic actors, network companies and wider cross-sector actors in each region?

We agree that the Strategic Board should include representation from relevant democratic actors, network companies, and wider cross-sector actors in each region. This inclusive approach ensures that the needs and priorities of each region are accurately represented and integrated into the Regional Energy Strategic Plan (RESP).

The inclusion of these stakeholders supports the transparent and accountable nature of the Strategic Board, fostering an environment where collaboration and meaningful input from diverse actors can occur. This structure is essential for aligning energy system planning with regional contexts and for navigating associated trade-offs effectively.

By embedding democratic representation and technical expertise, the Strategic Board can facilitate coordination between key local actors, ensuring that regional energy strategic planning is both comprehensive and reflective of local needs.

Q12. How should actors (democratic, network, cross-sector) be best represented on the board? Please provide your reasoning, referring to each in turn.

Actors on the Strategic Board should be represented as follows:

1. Democratic Actors

Democratic actors, such as local government representatives, should be included to ensure that the board reflects the democratic mandate and local priorities. In England, upper-tier authorities (combined, county, and unitary authorities) should be represented, while in Scotland and Wales, unitary councils should be included ¹. This ensures that the board is grounded in local democratic legitimacy and can effectively incorporate place-based inputs into the energy planning process.

Embedding democratic actors ensures that the board is accountable to the public and reflects local priorities and needs. This is essential for gaining public trust and ensuring that energy planning aligns with local development goals.

2. Network Companies

Network companies should be represented to provide technical oversight and review the implications of the RESP, particularly in how it impacts network planning. Their inclusion ensures that the technical feasibility and infrastructure requirements are adequately considered, aligning the RESP with existing and future network capabilities. This representation is crucial for integrating technical expertise into strategic decision-making and ensuring that network companies are aligned with the RESP's direction.

Including network companies ensures that the board has the necessary technical knowledge to make informed decisions about infrastructure and network planning. This helps in aligning strategic plans with technical capabilities and future-proofing the energy system.

3. Cross-Sector Actors

Wider cross-sector actors, including utilities, transport providers, businesses, and social and environmental bodies, should also be represented. These actors have significant interactions with the RESP and can provide valuable insights into how energy planning intersects with other sectors. Their inclusion ensures a holistic approach to energy system planning, considering the broader impacts and opportunities across different sectors. This representation supports the transparent and accountable nature of the Strategic Board, facilitating comprehensive and inclusive planning.

Cross-sector actors bring diverse perspectives and expertise, ensuring that the RESP considers the interdependencies between energy and other sectors. This comprehensive approach is crucial for achieving a coordinated and efficient transition to Net Zero.

Overall, this balanced representation ensures that the Strategic Board can effectively navigate the complexities of regional energy planning, fostering collaboration and informed decision-making.

Q13. Do agree with the adaptations proposed for Option 1? Please provide your reasoning.

The adaptations proposed for the embedded composition model support the overall objective of the Ofgem consultation and create a transparent, collaborative whole system approach to achieve Net Zero for several reasons:

1. Enhanced Transparency:

- The model includes requirements for the National Energy System Operator (NESO) to promote transparency and provide visibility to stakeholders regarding the reasons for its decisions and recommendations. This aligns with Ofgem's goal of fostering an open approach to data and decision-making.

2. Stakeholder Engagement:

- The model emphasizes the importance of stakeholder engagement and collaboration. NESO is expected to work closely with industry stakeholders, government, and Ofgem to ensure that the energy system's strategic planning is inclusive and reflective of diverse perspectives.

3. Whole System Planning:

- NESO's role in coordinating strategic whole system planning across gas, electricity, and hydrogen sectors supports a comprehensive approach to energy system management. This integration is crucial for achieving decarbonization targets and ensuring that all parts of the energy system work together efficiently.

4. Independent and Unbiased Advice:

- NESO's independence from commercial interests and operational control of the government ensures that it can provide unbiased, expert advice on critical decisions. This independence is vital for building trust and ensuring that strategic decisions are made in the best interest of the energy system and its consumers.

5. Regulatory Oversight and Performance:

- The adaptations include a robust regulatory framework to oversee NESO's performance. This framework ensures that NESO's activities are aligned with the objectives of achieving Net Zero while maintaining accountability and high performance.

6. Balanced Representation:

- The embedded composition model integrates both democratic and technical actors into a single governance board. This balanced representation ensures that both democratic representation and technical expertise are present in the decision-making process, fostering better communication and collaboration among stakeholders.

Overall, the adaptations proposed for the embedded composition model support the Ofgem consultation's objective by fostering a transparent, collaborative, and integrated approach to energy system planning, which is essential for achieving the UK's Net Zero goals.

Q14. Do you agree with our assessment that Option 1 is a better solution than Option 2? Please provide your reasoning.

The embedded composition model can be considered better than the Multi-stage model in several key areas: Governance Structure, Stakeholder Engagement, and Strategic Planning and Implementation which are highlighted below.

1. Governance Structure

The embedded composition model integrates both democratic and technical actors into a single governance board, ensuring balanced representation and fostering better communication and collaboration among stakeholders. This model promotes transparency and provides visibility to stakeholders regarding the reasons for its decisions and recommendations. In contrast, the Multi-stage model utilises a hub and spoke model where NESO acts as the central hub coordinating with regional spokes, which can lead to a more segmented approach with distinct stages for planning and implementation. This segmentation potentially results in less integrated decision-making compared to the embedded composition model.

2. Stakeholder Engagement

The embedded composition model emphasises the importance of stakeholder engagement and collaboration, ensuring that the energy system's strategic planning is inclusive and reflective of diverse perspectives. NESO works closely with industry stakeholders, government, and Ofgem to ensure comprehensive engagement. This model supports a more adaptable and cohesive approach to whole systems energy planning, embedding national, regional, and local stakeholder interests throughout. On the other hand, the Multi-stage model involves a significant programme of stakeholder engagement to inform the design of the policy framework, including in-depth workshops focusing on key themes such as function, governance arrangements, and regional boundaries. However, the formal interaction with Distribution Network Operators (DNOs) and Gas Distribution Networks (GDNs) may not achieve the same level of integrated stakeholder engagement as the embedded composition model.

3. Strategic Planning and Implementation

The embedded composition model supports strategic whole system planning across multiple energy sectors, promoting a comprehensive approach to energy system management. NESO's independence from commercial interests and operational control of the government ensures unbiased, expert advice on critical decisions. This model seems to be a more flexible and adaptive planning approach with national, regional, and local stakeholder interests embedded throughout. In contrast, the Multi-stage model focuses on splitting existing Sub-national Transport Body (STB) areas into smaller regions to better reflect local characteristics, ensuring that regional strategic plans are tailored to specific needs. While this approach includes provisions for periodic review and adaptation of regional boundaries and governance arrangements, it may lead to less integrated decision-making due to its segmented nature.

In summary, the embedded composition model is considered better than the Multi-stage model due to its integrated governance structure, enhanced stakeholder engagement, and comprehensive whole-system planning. The embedded composition model supports a more adaptable and cohesive approach to whole systems energy planning,

offering a flexible and adaptive planning approach with national, regional, and local stakeholder interests embedded throughout. In contrast, the Multi-stage model's segmented approach with distinct stages for planning and implementation may lead to less integrated decision-making.

Q15. 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).

A single region for Scotland is generally considered optimal for various reasons:

1. Efficiency and Governance:

- A single-region solution is deemed more efficient due to Scotland's devolved governance and established partnership arrangements, which would likely make a one-region solution more effective for energy and spatial planning policies.
- Workshop participants and stakeholders generally supported the idea that a single governance structure might be better suited to Scotland's energy and spatial planning policies. This supports a collaborative agreement on the segmentation of planning regions.

2. Geographical and Economic Considerations:

- While Scotland's geographies (communities, landscapes, economies, and energy ecologies) are notably varied, these differences alone do not justify a two-region solution. All regions need to successfully represent diverse communities, and a single region can achieve this more cohesively.
- The deeper analysis of Scotland's physical geographies, population centres, economies, transport infrastructure, and energy characteristics did not provide a strong enough case for splitting into two regions.

However, if a two-region solution is considered, the split should occur at the SSEN (Scottish and Southern Electricity Networks) and SPEN (Scottish Power Energy Networks) DNO boundary. This boundary naturally divides the northern Highlands and Islands region from the Central and Southern Scotland region, reflecting the existing DNO borders and the respective areas covered by Scotland's two transmission network operators.

Alternative Option

An alternative option could involve creating a more urban-central region covering the triangle of Glasgow, Edinburgh, and Aberdeen, and combining the northern and southern

areas characterized by rurality and isolated communities. This approach would ensure that urban and rural needs are distinctly addressed while maintaining a focus on regional characteristics.

Summary

In summary, a single-region solution for Scotland is optimal due to efficiency, governance, and the ability to cohesively represent diverse communities. If a two-region solution is necessary, the split at the SSEN and SPEN DNO boundary is the most logical approach, with an alternative option being a split that distinctly addresses urban and rural needs.