Ofgem Consultation

Regional Energy Strategic Plan policy framework consultation

Progressive Energy Ltd ('PEL') is a low carbon project development and innovation company, with over 20 years' experience in hydrogen and CCS projects. PEL originated the concept of the "industrial decarbonisation cluster" and HyNet North West, the most advanced industrial cluster within GB, as well as the Peak Cluster, to facilitate decarbonisation of cement and lime production. PEL has wide experience of both electrolytic and CCS-enabled hydrogen production projects, as well as working with the gas networks on decarbonisation research projects.

As a founder-member of the Carbon Capture and Storage Association (CCSA), PEL is represented by the CCSA, whose more detailed consultation response we endorse and refer to. Accordingly, we have limited our response to some more particular points that we wish to emphasize or make, from our perspective within industrial clusters, such as HyNet and the Peak Cluster.

We have arranged our consultation response with an overview of our key general points that span across multiple areas of the consultation, and also direct responses to the questions according to the Chapters and Sub-headings used in the consultation document.

General Points

We broadly agree with the substance and rationale for the RESP policy framework that is proposed, and echo the points raised by the CCSA regarding governance and further information sharing from Ofgem or NESO to industry about how the RESP will operate, mechanisms for engagement etc. We agree that these are perhaps best delivered as "teach-ins" or "webinars" for efficient means of raising awareness and understanding within industry. We feel this is particularly important so that industry can be aligned with developments, given the recent pace of change in this area.

The general points regarding the content of that we would like to make or emphasize, are as follows:

- **Strategic investment:** we strongly agree with the general conceptual move towards more strategic investment in network infrastructure ahead of demands. It is well known in industry that the historical approach from Ofgem management of network price controls has led to inefficiencies due to duplication of works (for both gas and electricity networks), but also significant delays in connections for new projects. Whilst in an environment of "low change", this can be seen as a sensible approach to maximizing value-for-money for consumers, in the current environment of "high change" that constitutes the energy transition, maintaining this approach will stymie necessary projects and investment that is needed to deliver UK carbon budgets. **We therefore emphasize that the RESP must be implemented in such a way that is consistent with the underlying purpose to enable strategic investments, and use by Ofgem for RIIO price control periods should also be consistent with this purpose.**

- **Prioritization of "speed":** we believe that as well as enabling strategic investment, the RESP should also facilitate this to be delivered "at speed" in order to support the pace of the energy transition that is required to achieve Net Zero. This concept should flow throughout the RESP, and so **in addition to the details of the RESP methodology that are set out, "speed" should be included and prioritized in the early periods of the RESP over other considerations,** such as "value for money"**.** This would affect areas such as decision-making

on inputs to the RESP, credibility criteria, effects to the RIIO price controls etc. Given that electricity network infrastructure in particular is known to be a key limiting factor for decarbonisation projects, whether for electrolytic or CCS-enabled hydrogen production, or others, and a general movement towards electrification, predisposition in favour of enabling network investment ahead of need should be made. The risk of any additional investment being "regretted" in future years is accordingly low, and since the system is constrained, any spare capacity will become a signal to industry to favour development in the relevant areas. In future years, as the energy system converges towards a steady-state, then it is reasonable for these criteria to change.

- **Significance of Industrial Clusters:** we emphasize that the industrial clusters such as HyNet or Peak Cluster are major drivers of changes of utility demands through the transition to Net Zero, with cross-vector impacts including electricity, gas, water and of course emerging CCS and Hydrogen networks, that could be regulated by Ofgem in future once developed. **Therefore, we encourage Ofgem and NESO to recognise the significance of the industrial clusters as stakeholders, and to include them in engagement with "local actors" through development of the RESPs.** In addition, the industrial clusters and most particularly HyNet, have from the outset developed their plans utilising a full system view (considering impacts to electricity, gas, CO2 and hydrogen networks) and devised approaches that maximise synergies between these, and inherently therefore value for money. For instance, the HyNet cluster is designed to have hydrogen transport and storage at its heart, which critically has the potential to provide long duration energy storage and a route to dispatchable low carbon power, so that the electricity system can leverage the inherent strengths of a gaseous energy vector (gas and hydrogen). **It is vital that NESO leverage the >8 years of development work by HyNet to replicate this successful model for RESPs across the country where applicable.**

- **Importance of "whole-system" approach:** we emphasize the importance of taking a "whole-system" approach to the RESPs, due to the cross-vector nature of the utility demands and outputs for decarbonisation projects. The consultation appears to heavily focus on electricity networks, and domestic consumption changes such as EVs. However, industrial changes are a major user of utilities that should be considered and even CCS or hydrogen projects typically require significant electrical loads, whether directly in the case of electrolytic hydrogen production, or indirectly for supporting processes like compression. We note that Ofgem state the RESP is not intended to be an *"all-utility regional master plan"* (para 3.51), but we **encourage Ofgem and NESO to consider wider system inputs to the RESP and facilitate "cross-pollination" of the findings to other regulated utilities (principally water, via Ofwat).**

  Boundaries: we note that the industrial clusters span large geographic areas, and therefore will inevitably cross multiple RESPs, regardless of which options are taken forwards for how to subdivide into regional RESPs. For instance, HyNet potentially spans across North West, West Midlands and Wales regions of the RESP, and other clusters would do similarly. **Therefore, it is very important that coherence and consistency between regional RESPs is achieved, to avoid artificial discontinuities that are a result of flaws of administrative process than in real energy network topologies.** Accordingly, we are ambivalent as to the geographic subdivision to be used by the RESPs, and encourage greater focus on how the administrative process will enable inputs to the RESP from coherent local actors such as HyNet to flow through into the relevant network investment decisions.

Chapter 2: Laying the RESP foundations

Vision and guiding principles for the RESP

Question 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 agree that NESO's methodology to implement the RESP should include the 4 principles outlined in the consultation document. **In particular we welcome the clear mandate for a "whole system" approach, covering gas, electricity, but also other aspects** – and we suggest these other aspects should be clarified in NESO's methodology to encompass emerging CO2 and hydrogen systems, but also water (clean & sewerage) that typically are required for any kind of industrial development. This should facilitate a cross-over of information to other relevant regulators (e.g. Ofwat) so that projects do not find infrastructure constraints simply move from the electricity system, to other systems, and enables a unified view of distribution-level infrastructure change. The extent of focus on these could be tailored according to the relevance to the core purposes of the RESP.

We agree with the CCSA's suggestions to encompass the 3 additional principles to be deliverable, be boundary responsive, and to be flexible. These are consistent with some of our general points and answers to specific questions elsewhere in this response.

Importantly, we would suggest adding another key principle to "Prioritize Speed". The 4 principles outlined appear to be principles about the RESP methodology that are enduring, and also concern the activities of the RESP, rather than the "decision making" within it. We believe that the "decision-making" both within and as a result of the RESP will be key to whether it is able to successfully make the strategic case for infrastructure investment within the regulated energy utilities, and that due to the increasing infrastructure challenges for a transition to net zero in a relatively short time window to 2050, "speed" of action should be a critical factor in decision-making. This would entail taking an approach that is more predisposed towards investment in the early periods of the RESP, when the urgency for investment to unlock decarbonisation projects is greatest. We recognise this is in contrast to Ofgem's traditional approach for regulating utility infrastructure costs, but we believe there is lower risk of "value for money" issues in the early periods of RESP, as investment that may be made "early" is unlikely to be regretted due to the high extent of projected infrastructure change that is needed. In later periods of RESP, this perspective can shift more towards optimisation and value-for-money being the priority, when the system returns closer towards a "steady state". The rationale outlined in this question response would also need to flow through into the respective RIIO price control processes for the RESP to achieve its objectives, and therefore we strongly encourage Ofgem to ensure the approach to both of these different aspects from NESO and Ofgem are aligned.

Chapter 3: Key building blocks of the RESP

Strategic direction setting – modelling supply and demand

Question 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.

We broadly agree with the proposals for the visions and pathways across the different timeframes, and also echo the points and questions raised in the CCSA consultation response.

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

We agree that the proposals for the update frequencies of both input data and full update are a sensible basis to balance relevance of data, and administrative burden. We view that it is critical for the RESP updated to keep pace with fast-moving developments, and importantly to provide a useful input into the RIIO price control periods. Consideration should be given to the timing of these so that cross-vector impacts can be understood for both electricity and gas network investment plans.

Strategic direction setting - identifying system need

Question 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 agree with the proposals that the central hub should provide a central set of assumptions for system need, for all RESPs to utilise. We echo and emphasize the CCSA's points regarding consideration of industrial and commercial system needs, beyond just those of domestic consumers as outlined in the examples provided. We also caution against the risk of errors in this set of central assumptions and over-reliance on them if they may not be realised in practice (for example, on Demand-side response, where consumer behaviour is a key, uncontrolled dependency). Accordingly, we encourage the use of a range of sensitivities for these types of assumptions, and that the RESP proposals for network investment should be robust across the range of sensitivities. (i.e., the RESP should avoid wherever possible from curtailing required network investment on the basis of assumptions that may not be realised – this is consistent with our general point about prioritization of "speed" for the RESP.). We also particularly agree with the suggestion in para 3.22 that network constraint data is shared transparently with industry in a geospatial view / with data visualisation, as this would facilitate industry project planning. For this to make sense to the user, we encourage this data sharing to be done on a "topological" basis as well, rather than a purely geographic basis.

Technical coordination

Question 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 and consistency between the RESPs and network plans is important, although we note little detail is provided on this in the consultation. We echo the CCSAs concerns raised about the prioritization of this area, and that more immediate focus should be placed on enabling the strategic investment that we understand is the core purpose of the RESPs.

Question 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?

We do not have particular comment on this question, and instead echo the points made within the response from the CCSA.

Inputs to the RESP

Question 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 data inputs, and that standardization would be a useful aspect to be developed over time as the RESP process becomes well established. In particular, we strongly welcome the recognition of the need for cross-vector inputs to include hydrogen and CCS developments and to evolve over time (para 3.40), and to engage with all relevant local actors (para 3.41). Consistent with our general points, we encourage NESO to engage with industrial clusters as part of this process. We welcome the incorporation of "bottom up" inputs (para 3.44) and suggest that these should include inputs from industrial cluster plans and decarbonization projects. We also question if any consideration has been given to "direct from consumer" data input, such as surveys or wider public engagement, which may provide complementary input to aspects such as heat pump or EV ownership.

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

We have no specific suggestions for criteria at this stage, however we reiterate the broader points made in our answer to Q2 above, that in the early periods of the RESP through 2030-40, greater emphasis should be made on "speed" of enabling investment to facilitate the transition to net zero. This would imply a lower "credibility bar" for inputs and therefore have a greater disposition towards extra network investment in this time period. Criteria could be altered for subsequent periods of the RESP once further policy certainty is established, to have a greater emphasis on credibility of inputs and therefore value for money.

Place-based engagement and local support

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

We broadly agree with the principles and rationale outlined in paragraphs 3.53 to 3.63, and would welcome further details being shared by Ofgem or NESO in due course. We stress that NESO should consider parties within "local actors" beyond just Local Authorities, and importantly to engage with the major industrial decarbonisation cluster projects, such as HyNet and Peak Cluster, predominantly as vehicles for inputs to the RESPs, but also as important stakeholders for dissemination of the subsequent analysis from NESO.

Chapter 4: Regional Governance

Purpose of the Strategic Board

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

We do not have particular comment on this question, and instead echo the points made within the response from the CCSA.

Representation and composition of the Strategic Board

Question 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?

We do not have particular comment on this question, and instead echo the points made within the response from the CCSA. We emphasize our general points regarding engagement with the industrial clusters such as HyNet and Peak Cluster as wider cross-sector actors in the relevant regions.

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

We do not have particular comment on this question, and instead echo the points made within the response from the CCSA.

Chapter 5: Boundaries

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

We do not have particular comment on this question, and instead echo the points made within the response from the CCSA.

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

We do not have particular comment on this question, and instead echo the points made within the response from the CCSA.

RESP arrangements in Scotland

Question 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)

We do not have particular comment on this question, and instead echo the points made within the response from the CCSA.