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**ofgem**

**Regional Energy Strategic Plan policy framework**

**Consultation Response from Shetland Islands Council**

**October 2024**

**Shetland Islands Council Response to OFGEM’s Consultation on Regional Energy Strategic Plans**

**Background**

Shetland is the remotest part of the UK and has been a major energy hub since 1978 when the massive Sullom Voe Oil Terminal (SVT) was opened. Since then, over 8 billion barrels of oil equivalent have been processed through SVT and the neighbouring Shetland Gas Plant (SGP). At one stage SGP was supplying 10% of the UK’s natural gas demand through a gas export pipeline which connects to the National Gas Grid at St. Fergus in Aberdeenshire. The UK oil and gas sector is now in steep decline, but is still likely to be a significant part of the UK energy mix until the middle of the century. It will continue to be a major employer here for decades to come.

Shetland is also the windiest part of the UK with an average wind speed of 16 mph and a commercial efficiency rate of over 50%. That means there is a great deal of commercial interest to develop wind power here. SSE’s 443MW Viking Energy Project is now operational and is exporting energy into the national power grid. It is expected to be the most productive onshore windfarm in the country, capable of supplying power to 500,000 homes. Other onshore windfarms, either in production or consented for development, will bring Shetland’s onshore wind capacity to over 700 MW by the end of the decade. Work is also underway to develop the ScotWind NE1 floating offshore wind sites to the East of Shetland, with an overall capacity of 2.8GW of energy. That will mean a combined wind energy production capacity in Shetland of 3.5GW (enough energy to supply nearly 4 million homes), with additional future wind and tidal developments likely. Shetland’s role as a major national energy hub will therefore continue in the energy transition period as the world progresses to clean energy sources.

It is also very important to note that the main logistical link on the UK mainland for building and operating energy production in Shetland is Aberdeen, and that will continue.

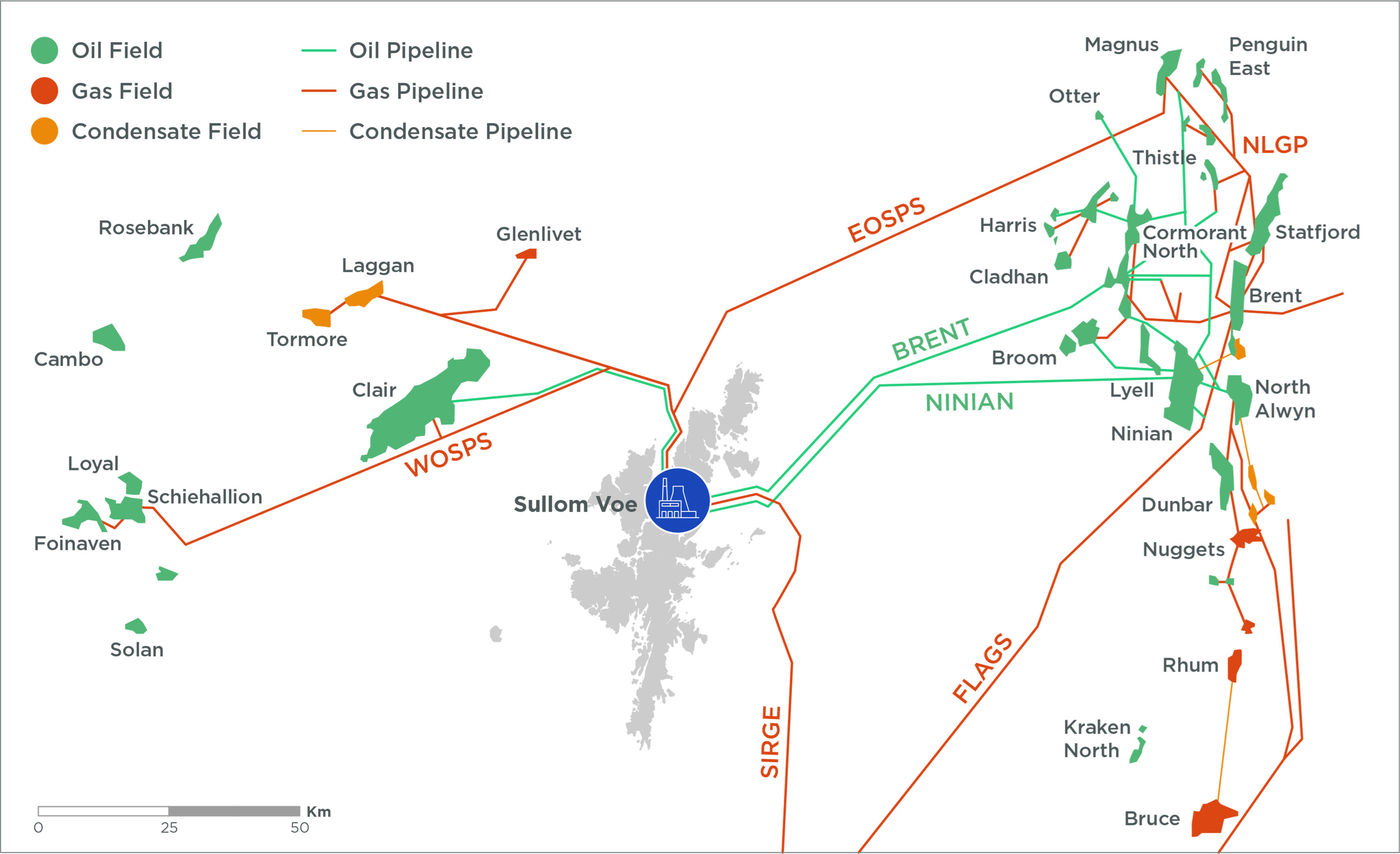
**General Statement**

Shetland Islands Council (SIC) is very worried about the idea of Regional Energy Strategic Plans (RESPs) being set up before an integrated national energy strategy is modelled and implemented. “Beyond 2030”- the transitional Centralised Strategic Network plan prepared by the ESO - has confirmed a number of commitments to transmission projects. The most significant for Shetland is the “Shetland Hub” which will connect a second HVDC subsea link from the isles to the GB electricity transmission network. We are concerned that the scope of the Regional Energy Strategic Plans especially for areas such as Shetland is too wide by covering the whole of Scotland. We believe they would struggle to balance community demand and generation with projects of national significance, such as industrial-scale hydrogen production. NESO is to work with government to develop a Strategic Spatial Energy Plan due in 2026 which will map out the energy infrastructure necessary to meet 2050 targets. However, it is unclear how far this will work with the local energy system. Therefore, there needs to be a greater recognition of energy hubs and how these operate across energy sectors. This is both with the local energy system and with strategic infrastructure connections. As an island community we only have a limited land area for energy developments and are very keen to ensure a holistic energy system for the region that minimises the impact on our landscape.

The next decade will see unprecedented levels of investment in energy infrastructure, all of which will ultimately be paid for by energy customers. A clear, strategic plan will also assist with other transformative pieces of work such as REMA and developing fair and transparent methodologies for how charges such as TNUoS are passed onto developers and customers.

At present Shetland has direct links to oil and gas infrastructure across the North Sea and to the West of Shetland through the network of oil and gas pipelines (see figure 1 below). This is in addition to the connection to St. Fergus through the SIRGE gas pipeline and the 600MW HVDC interconnector to the North of Scotland. However the 443MW Viking Wind Farm located in Shetland is constrained in part due to restrictions on the transmission network between the North of Scotland and the main demand centres in England. At the same time plans are being developed for the electrification of offshore oil and gas assets, industrial-scale hydrogen production, plus licenses being granted for CCUS, all associated with Shetland. In stark contrast, local energy generators are being quoted eye-watering grid connection prices to connect relatively small-scale generation for local use to the distribution grid. These connections would provide community wealth and resilience. Strategic planning is needed to avoid duplicated effort and allow wider considerations.

Figure 1



Sources [SSEN Transmission welcomes ‘Beyond 2030’ investment plan for future energy system - SSEN Transmission (ssen-transmission.co.uk)](https://www.ssen-transmission.co.uk/news/news--views/2024/3/ssen-transmission-welcomes-beyond-2030-investment-plan-for-future-energy-system/)

To illustrate what we mean in a wider context, we have provided [this link](https://www.netzerotc.com/wp-content/uploads/2024/07/NZTC-Energy-Hubs-Fill-the-Backbone-Report.pdf) to the Energy Hubs project report prepared by the Net Zero Technology Centre, and sponsored by the Scottish Government and organisations involved in the energy transition sector.

There should not be a patchwork of RESPs throughout the country before the adoption of an integrated national energy strategy. It would be much better for the UK and devolved governments to recognise that there are energy hubs with significant renewable energy supply opportunities located across the country. Routes to market need to be defined and modelled in a systematic way, and on a national basis, not a regional one. The best engineering solution needs to be identified to allow the best economic outcomes for customers, energy suppliers and the public purse. Our worry is that the regional approach being proposed is an extension of the fragmented, silo mentality that has prevailed in the early years of clean energy development in the UK. It will lead to unnecessary and wasteful competition, duplicated effort, and a concentration on narrow project options rather than wider considerations.

After a clear UK integrated energy strategy has been adopted, then there may well be important roles for RESPs to deliver local parts of the national plan. A national plan should ensure electricity is used as near to source as possible. This would aid production of value-added fuels such as green hydrogen and its derivatives (ammonia, e-methanol, synthetic diesel etc.) rather than the inefficient cable transportation of electricity hundreds of miles with resultant energy losses, into parts of a national grid that are already over-committed. Using alternative fuels to decarbonise locally first would then seem to be the most effective and economic use of those fuels. Once the bigger picture is understood RESPs should then be filling in the regional and local gaps as the consultation sets out.

The SIC’s response to this consultation exercise has therefore been prepared on the basis that RESPs will become active following the introduction of an integrated Uk energy strategy that guides the work of the whole UK energy system including the RESPs.

**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.**

SIC supports the inclusion of a fifth principle **“Be fair – enabling a Just Transition from fossil fuel production and use to clean energy production and use.”** This is of particular importance in Scotland as thousands of workers will need to be reskilled as oil and gas declines and renewable energy production becomes more prominent. It also relates to consumer protection in the remoter parts of Scotland where customers may not have access to the technology that is available in the more populated areas. The 30th June 2025 national switch off of the Radio Teleswitch System and Load Managed Areas being a pertinent case in point. Currently these systems switch domestic heating systems to benefit from low-cost electricity at times when the tariffs are low. Installing smart meters is publicised as the solution for households, but many customers in remoter places do not have access to the SMWAN signal needed to enable smart meters to operate. Hundreds of households in Shetland will miss out on having smart meters to regulate their heating systems and to benefit from future smart tariffs. That situation will only add to the high levels of fuel poverty experienced in the isles.

The work of the RESP must recognise the higher levels of fuel poverty in the colder and darker parts of Scotland where the average cost to heat a home is double the national average. These areas don’t have access to low-cost gas and will be need to use more expensive clean electricity.

**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.**

In line with our General Statement, SIC thinks that the RESP’s long- term vision, adjusted regularly, and aligned with multiple net zero pathways, must connect with an integrated national energy strategy.

That point repeated, we are pleased to see the inclusion of “a set of coherent plans (RESPs and network plans) which resolve gaps and inconsistencies and identify whole system opportunities”. However the proof will be in the practical application of the policy. Each RESP must reach out to all its constituent geographical areas. In Scotland this means understanding the renewable energy generation and use in the Highlands and Islands, and their respective routes to market. The area is potentially the most productive wind generation area in the whole UK. In Shetland there are significant non-technical barriers linked to transmission regulation that are preventing smaller-scale generation projects to link to the local distribution system solely for local use. Such projects are being stymied by the need for small businesses to pay eye-watering connection costs based on the securities for using the transmission system and the new HVDC interconnector. This makes no sense because these projects would be meeting the energy needs of consumers on Shetland using the on-island distribution system. If this barrier was removed it could unlock up to 40MW of on-island wind generation. This would leave the industrial-scale SSE, Statkraft and NE1 ScotWind projects to either export GWs of power to the UK grid using the new and proposed interconnectors, or to use that energy for producing value-added products such as hydrogen or derivative fuel close to energy source, either for local use or export. Enabling smaller-scale production would hasten the journey to net zero and, through local wealth creation, help the islands to deal with the exceptionally high levels of fuel poverty and high costs of living that we experience. These changes could also be implemented to similar effect in the other Scottish islands and parts of the Highlands. Unlocking the potential generation of renewable energy at local level through SMEs and social enterprises also ties in with the Just Transition approach that is so important as we continue to switch from energy-based oil and gas to renewable energy resources.

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

SIC agrees because energy transition is such a fast-moving phenomenon that constant data refresh is necessary to understand the changing energy landscape, adjusting the regional vision and refreshing the policy positions. However, further clarity is required on what would be expected of the local authority and the wider community in RESP refresh years compared to annual data refresh years. We would also want assurance that data systems were integrated and accessible as we also submit information for the annual DFES process and are also asked to report on climate targets.

**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.**

SIC believes strongly that, given the major government investment in energy infrastructure required in coming decades, a national system to establish electricity supply and demand is essential. The cost-effectiveness of all these major investments needs to be undertaken following detailed engineering, commercial and financial analysis to deliver optimal outcomes for the UK population.

SIC agrees that the RESP has to inform system need based on consistent assumptions, the spatial context for capacity needs and strategic network investment. Major renewable energy generation projects are being developed across the UK and particularly in the North of Scotland where the country’s main onshore and offshore wind resource exists. With so many production projects at GW scale being advanced now and in the coming decades, the supporting network must be designed for maximum future flexibility. For example, the new 600 MW HVDC interconnector from Shetland to Mainland UK was oversubscribed before it became operational on 3 September 2024. In addition the mainland infrastructure could not carry the power generated by the 443MW Viking project causing immediate energy constraints, to the disadvantage of the UK treasury and energy consumers. Also, the NESO decision to advance the 1.8GW interconnector to the UK Mainland, bearing electricity from the NE1 ScotWind sites to the East of Shetland, is 1GW short of those sites’ generating capacity licences and has been taken, apparently, without modelling options for energy supply and demand. With a bit more foresight the new 600 MW HVDC interconnector could have been designed at a much higher capacity. Going a step further forward, what happens if a second interconnector is required to meet the NE1 sites’ requirements and is built after the first one is in place. That is likely to need dedicated onshore infrastructure which will essentially duplicate the earlier developments relating to the 1.8GW interconnector. Land, which is a constrained resource in island locations, and landscape issues appear only to be included into network planning at later stages, leading to spatial squeeze. For example, it is very difficult to plan the onshore infrastructure for the NE1 ScotWind sites because the 443MW Viking Energy onshore windfarm covers the middle of Shetland restricting corridors for further transmission lines. In addition what happens in later years should more offshore wind be developed with a need for more seabed cabling and onshore switching stations? If such a prospect is not taken into consideration now then there will be a proliferation of future energy networks rather than adding these to facilities which have been developed at locations suitable for such expansion. In conclusion on this question there is a lot of strategic work for the UK Government agencies to do before RESPs come into being.

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

SIC agrees that a national agency must have overall technical coordination of the UK energy system to foster effective work between the RESPs and also to ensure that network companies develop in a coordinated way. NESO has to provide that overall technical coordination role with an integrated National Energy Strategy in place at the start. That stated, the governance arrangements for network delivery has to be clear and implicitly understood with a far higher emphasis on making regulatory frameworks as flexible as possible to match local energy demand with local energy production. For example, enabling a wide range of energy production at all scales to meet local demand efficiently as well as building transmission networks to larger centres of energy demand. Making energy-rich parts of the country as self-sufficient as possible will enable the major energy companies to concentrate on bringing energy to the energy-poorer parts of the country where demand is higher (the major cities and towns).

**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?**

Providing that a national guiding framework is in place, SIC agrees with the three building blocks as described in the consultation and thinks that they cover all the key components.

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

Providing that a national guiding framework is in place, SIC considers that the standard local data inputs have been identified.

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

SIC would stress the need for comparative methods to be used so that the quality of the inputs are the same from all areas of the RESP.

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

NESO has to engage with the existing energy development structures and that engagement needs to be at local government-area level. We have shown Shetland’s Energy Development governance arrangements in the table below. Shetland is also an active partner in the Islands Centre for Net Zero involving Orkney and the Outer Hebrides.

(HIE- Highlands and Islands Enterprise; SRFS – Scottish Fire and Rescue Service; LPA – Lerwick Port Authority; UHI – University of the Highlands and Islands)

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

SIC thinks that complexities of the governance arrangements for RESPs will impact on the effectiveness of these bodies. It is a very complicated structure and will lead to confusion and inactivity at a time when clarity of purpose and high levels of activity are essential.

**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?**

SIC is very worried that the voices from the remote parts of the country, with small populations will be lost in the crowd of larger areas and major companies that will be represented on RESPs. Shetland, together with Orkney and the Outer Hebrides are all set to be key players in the national energy mix and the contribution that these island communities will make needs to be properly recognised

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

The scale of the energy activity in each part of the country needs to be fully recognised in the RESP. Around one third of the UK’s wind energy will come from the land and sea around the three island groups so the contribution of Shetland, Orkney and the Outer Hebrides needs to be taken into full account if RESPs progress.

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

No comment.

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

No comment.

**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).**

SIC repeats its concern about the effectiveness of the overall RESP proposal as part of the national energy transition governance structure. If the proposal is advanced further as part of a well- researched integrated national energy strategy, then SIC’s preference would be a two-region RESP model for Scotland based on the OFGEM initial proposals as shown on page 42. Aberdeen has to be included as part of the Highlands and Islands because Shetland’s logistical supply links are with Aberdeen and the GSP gas pipelines connects to St. Fergus in Aberdeenshire.