

## Scottish Energy Strategy: The Future of Energy in Scotland

### RESPONDENT INFORMATION FORM

**Please Note** this form **must** be completed and returned with your response.

Are you responding as an individual or an organisation?

Individual

Yes Organisation

Full name or organisation's name

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The Scottish Government would like your permission to publish your consultation response. Please indicate your publishing preference:

**Information for organisations:**

The option 'Publish response only (without name)' is available for individual respondents only. If this option is selected, the organisation name will still be published.

If you choose the option 'Do not publish response', your organisation name may still be listed as having responded to the consultation in, for example, the analysis report.

Yes Publish response with name

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We will share your response internally with other Scottish Government policy teams who may be addressing the issues you discuss. They may wish to contact you again in the future, but we require your permission to do so. Are you content for Scottish Government to contact you again in relation to this consultation exercise?

Yes Yes

## **Answers to questions**

**1 What are your views on the priorities presented in Chapter 3 for energy supply over the coming decades? In answering, please consider whether the priorities are the right ones for delivering our vision.**

Scotland's prime priority must be the decarbonisation of all energy use as soon as practical. In doing so the country should seek to gain industrial and economic advantage through being a first mover, early adopted or aggressive follower of successful technologies, behaviours and approaches. This will require: an on-going focus on renewables; it will also require a recognition that the continuing production of oil and gas must move to non-energy markets for the products arising; it will require a major focus upon energy storage, energy conversion and localised energy commoditisation (into products and energy services)

**2 What are your views on the actions for Scottish Government set out in Chapter 3 regarding energy supply? In answering, please consider whether the actions are both necessary and sufficient for delivering our vision.**

The actions outlined need to be more 'transformational, more radical and more visionary'. They currently read like a 'business as usual' transition plan. We believe however that such an approach will be totally inadequate for the climate stimulated and associated economic, social and environmental pressures that are already emerging and which will accelerate and grow in scale and intensity. Scotland needs to be thinking how we will do things differently, not how do we do more of the same. Scotland's early success and status in this sector was established through establishing ground breaking targets and setting out to do what people at the time thought was impossible and even fanciful. However these earliest of targets have been achieved and even exceeded. Now, the progress that was being made in Scotland has stalled due to external influences and the fact that our current mechanisms work within the status quo that has been established rather than breaking into new territory and thinking.

There are many concepts, ideas, plans and solutions that can be found in Orkney, too many to write about here, but we are always ready to engage with the Scottish Government to explore how such a radical, yet essential agenda could be framed and how it could best be delivered upon. As a community that has already delivered 120% of its electrical demand from renewables we can contribute from a position of living in the future, not looking back to the past, for inspiration. We would welcome an early opportunity to engage further on this and other related issues.

**3 What are your views on the proposed target to supply the equivalent of 50% of all Scotland's energy consumption from renewable sources by 2030? In answering, please consider the ambition and feasibility of such a target.**

- Scotland has benefited greatly from being a world leader in setting renewable energy targets.
- The benefits arising from strong adoption strategies for renewables have out-weighed the negative aspects but the balance between good and bad outcomes could be made even stronger through the application of better and best practise in early consultation and engagement, strategic and project planning, technology development, technology

installation, investment practises, ownership models and feedback to the public and customers on real energy performance.

- Scotland should therefore aim to again set world leading targets, 50% of energy from renewables by 2030 may in fact be too cautious. Certainly Scotland wants to be ahead of the global curve to decarbonisation 'so that we can/if we want to' help others achieve their own targets.
- Sector based targets may help here, for example: 100% electricity capacity by 2020; 100% of heat by 2030 (eradicating fuel poverty at the same time); 100% of land and domestic sea transport by 2030 (ferries, fishing, recreation, workboats, coasters, research vessels etc); industrial energy could be 100% by 2030; air transport may be difficult to decarbonise.
- This would suggest that Scotland could be largely decarbonised by around 2030 with then 2 decades of business to help others follow.
- Other areas where targets may be needed include:
  - Energy efficiency – we need to see a major reduction in energy use by 2030 (<75% of now) and even greater efficiencies by 2050 (<50% of now)
  - Given the strong industrial reasons for embracing change there needs to be strong emphasis on local business benefits/local content in the associated work streams, not only at a Scotland wide level but also at regional and especially at local levels – where developments and/or co-investment have occurred
  - Number of people employed in the sustainable energy sector and various technology sub-sectors in Scotland, regionally and locally
  - Installed capacity on a regional and local basis to help guide the planning process

#### **4 What are your views on the development of an appropriate target to encourage the full range of low and zero carbon energy technologies?**

We have a particular interest in and potential benefits from community and locally owned wind energy, in tidal and wave energy and in floating offshore wind energy in Orkney. We believe that targets leading to the appropriate development of these technologies should be established and maintained by the Scottish Government and enabled through suitable incentives.

Orkney public and private sectors have shown themselves to be willing to co-invest in new technology futures alongside suitable incentives from government and or others.

What has been unfortunate at best and disastrous at worst has been the disconnects that have taken place between different strands of government and agency support for renewables. This has led to stranded investments from both the private and public sectors in terms of large scale and micro scale onshore wind, tidal and wave technologies and infrastructure and has also stifled investment in offshore wind and particularly floating offshore wind. The Scottish Government has been a beacon of hope and at times substantial support through this morass, but more could and should be done to create the continuity and critical mass needed to secure the sustainable energy ambitions that we all share. Particular measures that could and should be put in place include:

To retain a sustained focus on securing green economy benefits from areas where the seeds of success have been established, rather than trying to spread the early and fragile results of success over other and too many different areas. For example, Orkney has led the way in the investment in

and development of so many types of sustainable energy initiative, but rather than consolidate this embryonic success government and agency policy has sought to, too soon, spread the benefits to other neighbouring and outlying areas and to rely upon corporate muscle rather than technical credibility as the measure of capacity. This has led to instability on Orkney's development pathway and hindered overall sector development by leading to other areas replicating what has gone before and failing because they don't have the innate and unique benefits that Orkney has to be an innovator and a pioneer in this sector.

Examples of these failures include: the moves to re-task the Dounreay nuclear site workforce through the so called 'Pentland Firth Initiative'; the favouring of utilities as successful marine energy lease holders who have now virtually all left the sector due to changes in corporate focus; the effective closure of Orkney to further marine development after the first leasing round under the mismanagement regime of The Crown Estate; the on-going pipeline of monetary support for the UHI whilst the island based institutes of other universities and supply chain based research capacity is virtually ignored; the establishment of a sustainable islands initiative by SDI which has no connections to, or input from, the islands of Scotland that it is attempting to emulate; the adoption of procurement strategies, particularly through framework agreements, which exclude SME's where the real expertise and experience lies for strategic energy planning and project delivery in favour of larger corporate companies that have consistently failed to deliver appropriate outcomes; the basing of Wave Energy Scotland in Inverness where there is no geographical connection with wave energy nor any added value from the ground breaking and world leading work undertaken in Orkney;

This instability has already led to the loss of around 33% of the peak Orkney renewables workforce, the loss of over 100 jobs and has put at risk over £100 million of Orkney's own public and private investment in renewables. This price is too high to pay, especially when with better strategic planning and decision making these negative outcomes could and should have been avoided.

Further targets and development strategies in Scotland should therefore identify key strategic assets in terms of resources, technology, expertise, experience and investment. These key asset bases should be described, understood, celebrated and analysed. Where these assets are clustered to create a critical mass and a collective basis for success all necessary resources should be targeted towards them in order to deliver the substantial outcomes that are possible. The key strategic targets should be supported to the point where they are secure and stable and self-reliant. The wider promotion of, learning from and export of the benefits from these clusters should first be targets towards supporting these strategic clusters and only after that, used to spread the benefits to other geographical areas as and where this is appropriate.

Such an approach will not only deliver faster and more secure success for Scotland, it will also lead to a more effective and successful spreading of benefit around Scotland, once the opportunity has been secured and delivered, rather than trying to spread the benefits too soon and therefore dilute to opportunity to the extent that it is missed.

Specific technology targets could therefore include:

- It is essential that suitable incentives and targets are re-introduced for the tidal, wave and certain wind technology classes where they can become part of a strategic solution to deliver the overall carbon abatement targets.

- Capacity limited incentives where the bigger the scheme or installation the less the tariff and the shorter the term of support. This would encourage the early stage innovators but avoid excessive over payments as technologies develop.
- Regional incentives should be established to ensure that key development hubs are encouraged and supported. For example the present barriers to island development created by the TENUoS charges and other grid management mechanisms should be overcome in very short order or compensated for through a specific support mechanism that recreates a suitable fair development environment.
- Incentives should be established for technology installation and use without necessarily having grid connections. This would incentivise structural demonstration, off-grid systems and enabling technologies which are no less essential to a successful sector than grid connected generators.
- Incentives should also be considered for energy storage and energy balancing mechanisms that will help to create more efficient and cost effective energy networks in the future. These may not need to be lifecycle tariff type incentives but could be upfront and non-monetary measures (eg pre-permitting/licensing) which reduce early stage and at risk costs for a project, thus improving the cash flow of development and increasing investor and customer confidence in the deliverability of solutions.
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As well as renewables Scotland should also develop targets for the uses of the oil and gas which it produces in the future. These targets should align with the overall decarbonisation of energy to try and achieve by say 2030 that none of Scotland's oil and gas are used for carbon emitting purposes such as energy generation. Not only is this an essential part of the overall energy transition mix, but it would incentivise Scotland's oil and gas sector to pioneer the carbon emission free use of oil and gas for better and possibly higher value products and uses.

### **5 What ideas do you have about how we can achieve commercial development of onshore wind in Scotland without subsidy?**

Further development of onshore wind in Scotland, and indeed in the islands such as Orkney, should be encouraged where they align with an overall strategic energy plan. Scotland and the islands need extra capacity in certain areas but don't need development or any more development in other areas. Since major capacity has been established through market led process, the time may have come for a more strategic approach to fill the remaining gaps and needs. This will be especially important given some of the planning compromises that may be needed to deliver such capacity. The sites used for development should have real strategic purpose and value, but in so being should be able to utilise sites that may in other circumstances have certain disadvantages, so long as on balance they provide a better options than presented by alternatives.

For example in Orkney the islands need a certain generation capacity and technology mix to make the case for new transmission cable connections. Appropriate developments to help provide that capacity should be optimised and then prioritised through planning and indeed where needed through economic incentives

**6 What are your views on the potential future of Scotland's decommissioned thermal generation sites?**

No particular comments.

There may however be an important role in establishing new strategic thermal capacity in strategic locations to help balance the overall supply dynamics from renewables. For example in Orkney there may well be a case for having some gas generation capacity locally to balance a mix of renewables output in order to maximise the cost efficiency of any new transmission grid connection.

**7 What ideas do you have about how we can develop the role of hydrogen in Scotland's energy mix?**

Hydrogen may well be an important part of the future energy system but the economics and practicality need to be investigated and assessed and the misnomers about its safety need to be addressed and corrected. In the former case initiatives such as the BIGHIT and the Surf and Turf projects in Orkney provide a beacon of the types of initiatives that should be adopted and create a cluster of capacity and infrastructure that should be supported and built upon.

In the latter case the existing risks that society accepts from petrol fuels, gas supply etc need to be clearly articulated and compared to the risks of hydrogen since the current situation suggests that all hydrogen risks are new when they will to a great extent just replace and may even improve upon existing asphyxiation, flammability and explosion risks from fuels.

**8 What are your views on the priorities presented in Chapter 4 for transforming energy use over the coming decades? In answering, please consider whether the priorities are the right ones for delivering our vision.**

Again these actions and priorities need to be more transformational, more interventionist and bolder if the essential targets are to be met. We have to transform societies use of energy and probably in doing so society itself – for the better. We need to use less, share more, make better decisions about what we do, when and how and we need to get used to having a more challenging climate and less resources with which to manage it. Alongside these challenges we can hope to be happier, have less poverty, less excess and live healthier lives. Not much really!!! It won't be easy but we need to push and pull to make it a success.

**9 What are your views on the actions for Scottish Government set out in Chapter 4 regarding transforming energy use? In answering, please consider whether the actions are both necessary and sufficient for delivering our vision.**

Many of the actions set out are commendable but there need to be another layer of strategic interventions and facilitating measures that really get the transition moving and accelerating. These will need strong and engaged partnership working with the host communities and the investment partners. These strategic action clusters, which by the nature of energy supply and demand need to be geographically anchored, need to be considered, selected, enabled and supported over the long term.

**10 What ideas do you have about what energy efficiency target we should set for Scotland, and how it should be measured? In answering, please consider the EU ambition to implement an energy efficiency target of 30% by 2030 across the EU.**

Scotland's target needs to be more than and quicker than others if we are to be leaders of others. Scotland's values and culture mean that these changes should be more possible here than elsewhere. We need to show the way - "Do better and more with less". It could be called the 'Scottish Way'.

**11 What are your views on the priorities presented in Chapter 5 for developing smart, local energy systems over the coming decades? In answering, please consider whether the priorities are the right ones for delivering our vision.**

As stated previously this needs a strong strategic plan which gives purpose and responsibility to each part of Scotland. Some areas such as Orkney may be heavy lifters with major, above weight, heavy lifting to be done. Other areas may have lighter loads where their energy related assets are less available or developed. This will in turn require a strong commitment to decentralisation of power, resources, responsibility, jobs etc. It is not all about community ownership of generation projects, its is also about supporting local supply chains about encouraging local investment in local futures about making inward investors welcome but on locally appropriate terms and about ensuring that we learn from what we have done before and that we make smart decisions about the future. Scotland has already amassed a lifetime of experiences regard sustainable energy, including the good, the bad and the ugly. We need to recognise all of these experiences and learn from them across all of Scotland if we are to move forward successfully for the benefit of every community in the country.

**12 What are your views on the actions for Scottish Government set out in Chapter 5 regarding smart, local energy systems? In answering, please consider whether the actions are both necessary and sufficient for delivering our vision.**

See answer to last question

**13 What are your views on the idea of a Government-owned energy company to support the development of local energy? In answering, please consider how a Government-owned company could address specific market failure or add value. Scottish Energy Strategy 78/79**

There are good elements to this idea but also many possible pitfalls. Full consideration should be given to all of the local community and local ownership models that are being applied and explored presently and careful analysis made with broad inputs of what option or options may be best.

**14 What are your views on the idea of a Scottish Renewable Energy Bond to allow savers to invest in and support Scotland's renewable energy sector? In answering, please consider the possible roles of both the public and private sectors in such an arrangement.**

This sounds like a good idea but the comment for Q13 apply

**15 What ideas do you have about how Scottish Government, the private sector and the public sector can maximise the benefits of working in partnership to deliver the vision for energy in Scotland?**

See answers above. The key issue is communication and real engagement with the full spread of expertise across Scotland. Too much of what is done presently ignores or seeks to ride ill-informed on the back of what has been achieved in rural and island Scotland. These geographical issues must be addressed since renewables and sustainable energy relies wholeheartedly on the rural and island communities of Scotland for its success.

16 What ideas do you have about how delivery of the Energy Strategy should be monitored?

Comprehensives and regionally at a local authority level, including jobs, social, cultural, ecological. physical and other metrics that are not currently monitored

**17 What are your views on the proposed approach to deepening public engagement set out in chapter 6?**

It needs to be different, dispersed, consistent, persistent, informed, open to input and imaginative