

Email to:

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28 January 2022

Dear Ms McNeil,

## **Response to the Onshore Wind Policy Statement Refresh 2021: Consultative Draft**

Scottish Renewables is the voice of Scotland's renewable energy industry, working to grow the sector and sustain its position at the forefront of the global clean energy transition. We represent around 280 organisations across the full range of renewable energy technologies in Scotland and around the world, ranging from energy suppliers, operators and manufacturers to small developers, installers, and community groups, as well as companies throughout the supply chain.

Scottish Renewables welcomes The Scottish Government's support for onshore wind and the publication of a draft policy statement refresh. We recognise that, with the support of The Scottish Government, Scotland has the best policy environment in the UK for developing onshore wind.

The policy statement update offers the opportunity for Scotland to strengthen its position as a global leader in renewable energy and make significant progress towards achieving our net-zero obligations.

We welcome the tone of this document which recognises that 'business as usual' will not achieve our net-zero obligations and that transformational change is needed. The onshore wind industry is committed to working in collaboration with The Scottish Government to resolve and deliver solutions to the barriers to deployment we highlight in this document.

The key issues and barriers to deployment we would draw attention to are:

- The Onshore Wind Policy Statement (OWPS) should include a clear statement that increased deployment of onshore wind will be needed *in addition* to increased deployment in offshore wind and solar. The Climate Change Committee estimate that we will need to quadruple renewable energy deployment by 2050 and all renewables will be needed.
- The OWPS should also include a clear statement that it applies to all scales of onshore wind development and not just to Section 36 applications.
- The OWPS needs to send a clear signal of intent to industry to ensure investor confidence and attract the investment needed to deliver the ambitions of the OWPS. There are parts of the draft OWPS where wording needs strengthening to address issues of strategic significance to onshore wind.

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- The most significant strengthening of wording required is for the 8-12GW by 2030 *ambition* to be strengthened to a 12GW by 2030 *target*. A 12GW target is aligned with the Climate Change Committee’s advice on achieving net-zero at least cost and will send the clear signal of intent that will enable industry to respond.
- We welcome the proposal of a Sector Deal through which industry can work in collaboration with The Scottish Government to ensure this target is met by enabling a steady pipeline of developments that deliver multiple benefits to Scotland in addition to supporting the achievement of net-zero.
- Following the completion of this consultation we recommend that an Onshore Wind Strategic Leadership Group, chaired by the Cabinet Secretary for Net-Zero, Energy and Transport, be formed. This group should bring together high-level industry stakeholders to work with The Scottish Government to develop the details of a Sector Deal.
- This consultation sits alongside the consultation on the draft National Planning Framework 4 (NPF4). A supportive planning system will be vital to achieving the 12GW target but there is a fundamental disconnect between the level of ambition in the OWPS and the NPF4.
  - We welcome the commitment within the NPF4 “*To achieve a net zero, nature-positive Scotland, we must rebalance our planning system so that climate change and nature recovery are the primary guiding principles for all our plans and all our decisions.*”
  - However, the draft NPF4 falls short of these ambitions as there is no clear guidance on how the planning balance should change to ensure addressing climate change and supporting nature recovery are the primary guiding principles in all plans and all decisions.
  - If the NPF4 fails to rebalance the planning system and does not contain a clear mechanism for making climate change and nature recovery the primary guiding principles for all plans and decisions, it will not be possible to achieve the target set out in the OWPS.

It is essential that policy recognises that the landscape of a net-zero Scotland will look different from today and will include more and taller turbines in addition to forested hills, active wetlands, and restored peatland.

We are concerned that, in places, the wording of this policy statement perpetuates an outdated narrative that onshore wind is an inherently negative addition to our landscape and a ‘concern’ for tourism, despite significant evidence to the contrary.

It is time for our onshore wind policy to establish a new narrative for onshore wind that recognises it as an opportunity to establish ‘carbon parks’ where renewable energy generation, nature

recovery, carbon sequestration and access to green space for walking, running, and cycling are combined in ways that create quality, green jobs and support a Just Transition.

Adding an additional 12GW of onshore wind to our landscape should be viewed and promoted as a positive sign of a progressive nation proactively addressing the climate and biodiversity emergencies in an integrated way.

Scottish Renewables would be keen to engage further and discuss our response in more detail.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Mark Richardson', with a stylized flourish at the end.

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## RESPONSE TO CONSULTATION QUESTIONS

### Chapter 1: Current Position

1. Does chapter 1 provide a fair reflection of the current situation faced by Scotland's onshore wind industry? (*Strongly agree, Mostly agree, Mostly disagree, Strongly disagree – why?*)

SR welcomes the supportive approach of the draft OWPS and the ambition it sets out.

Over the last 20 years, we have developed 8.5GW of onshore wind which now provides the equivalent of 58% of Scotland's electricity consumption. However, the drive for net-zero and the ambition set out in the draft OWPS means the coming decade will be significantly different from the two that have gone before in both the scale of ambition and speed of delivery.

We recognise the significant role The Scottish Government has played in the success of onshore wind to date and their signalling through this statement of their ongoing support for the Scottish onshore wind industry. As an industry, we would look to continue our collaborative working with The Scottish Government to ensure onshore wind reaches its full potential to support the achievement of net-zero and deliver social and economic benefits for the people of Scotland.

While we recognise that Chapter 1 captures much of the current situation facing Scotland's onshore wind industry, there are some significant omissions that mean the picture is incomplete. We therefore **mostly disagree** that Chapter 1 provides a fair reflection of the current situation faced by Scotland's onshore wind industry. It is vital that these omissions are addressed as they have a significant impact on the delivery of the ambitions set out in the draft OWPS.

### **Issues to be added to Chapter 1**

Since The Scottish Government's Onshore Wind Policy (2017) was published five years ago, the financial landscape for onshore wind has changed significantly, bringing far greater financial pressure to bear on the development of competitive, financially viable projects. Chapter 1 does not reflect this changed financial reality.

Whilst the industry has successfully delivered many projects, the market uncertainty created by changes in UK energy policy means that few projects have been constructed since 2017. It is important that Chapter 1 acknowledges this and the importance of a stable policy environment at the UK level to the successful delivery of projects in Scotland.

Obtaining consent and delivering a wind farm currently takes on average seven years from conception to commissioning. This average is untenable if we are to achieve the ambitions in this plan in the eight years remaining to 2030.

Chapter 1 does not contain any discussion of the problems faced by onshore wind developers through the consenting regimes; with uncertainty and timescales relating to consenting creating major barriers to deployment. An important area of this uncertainty that needs to be addressed is the inconsistencies of approach between statutory consultees such as NatureScot and Forestry & Land Scotland.

In addition, delays in the planning process regularly arise due to a lack of engagement from statutory consultees early in the pre-application or scoping stages. Commonly consultees only engage meaningfully with a proposal at the application stage. This often results in the requirement for additional information, assessment and advertisement with associated cost and time delays.

There needs to be recognition in Chapter 1 that funding and resourcing of local planning authorities and statutory consultees will inevitably impact the consenting process. This issue must be addressed if the substantial increase in installed capacity proposed in the draft OWPS is to be delivered.

Delays to the determination of appeals and time taken to discharge technical planning conditions such as aviation lighting and surveillance capabilities can all add years to the lifecycle of a development. The consequences of delays in the consenting process result in delays to the commencement of developments on site, delays to increasing installed capacity and often developers having to revisit consents where candidate turbines are no longer produced by turbine suppliers. An efficient and effective planning system is critical to achieving the target of 12GW of additional installed capacity by 2030 and this should be reflected in Chapter 1.

The 4.5GW of consented but not yet built projects is used as a positive marker for reaching the 12GW by 2030 target, but this is very optimistic. At the end of 2021, 125m turbines ceased to be available from manufacturers, with 150m turbines increasingly following suit and 180m turbines becoming the minimum size available on the global market. When projects consented with turbines of 150m or less are omitted, the 4.5GW figure decreases to 1.3GW.

It is essential that a fast-track mechanism is put in place to review and consent these projects so they can be built with the latest available technology, delivering substantial progress towards the 12GW of additional deployment we will need by 2030.

Over the coming decade, onshore wind will continue to provide most of the renewables-generated electricity in Scotland. Adequate legislative and political support is critical as electricity demand accelerates towards the doubling of demand indicated by the Climate Change Committee. The section (and subsequent Chapter 3 questions) covering grid charging does not convey the criticality of the issues currently impacting the sector, notably the uncertainty around grid transmission charging.

Of particular concern is the 'minded to' position on transmission charging outlined by Ofgem in its August 2021 consultation on Access and Forward-looking Charges Significant Code Review. If implemented as outlined, it will significantly hamper Scotland's ability to deliver on the 12GW by 2030 target.

Several of the issues outlined above stem from concerns about the draft NPF4 which is also subject to consultation at present. The draft NPF4 falls far short of providing the clear and supportive policy basis needed to ensure onshore wind will contribute to 2030 and 2045 net-zero targets.

In summary, the current development process exists in a challenging environment. If the ambitions of the OWPS are to be realised, it is essential that Chapter 1 and subsequent Scottish Government policy reflects this and supports the delivery of highly competitive projects that are financially viable and provide low-cost energy to the consumer in the more challenging environment that has emerged since 2017.

## **2. How can the maximum number of developments be enabled to be constructed without finance acting as a barrier?**

Between the drafting of the first Onshore Wind Policy Statement and this update consultation being published, industry has reduced the cost of electricity being generated by onshore wind by 36% or more in real terms. This makes onshore wind one of the cheapest sources of new electricity and benefits all electricity consumers.

To enable the maximum number of developments to be constructed without finance acting as a barrier, it is essential that The Scottish Government focuses on ensuring that policy impacting on projects does not undermine financial viability in the changing market of onshore wind.

We acknowledge that The Scottish Government does not control CfDs as the main finance stabilisation mechanism available, but SR welcomes The Scottish Government's support for our lobbying efforts to get onshore wind back into CfD Pot 1 and ensure Pot 2 works as best it can for Remote Island Wind.

We ask that The Scottish Government continues to work with industry to maintain and increase pressure on the UK Government to ensure Pot 1 for onshore wind and Pot 2 for Remote Island Wind are retained in future CfD rounds through to 2030. SR would also welcome support from The Scottish Government for industry's calls for annual CfD rounds.

**Issues that will affect the financial viability of projects in future CfD rounds and those utilising other routes to market:**

**The length and uncertainty of the consenting process** are major sources of costs in project development that must be recouped during a wind farm's operational life. The longer the consenting process, including appeals and Public Local Inquiries, and the higher the planning attrition rate, the higher the costs that need to be recouped which reduces financial viability.

The long, uncertain, and inconsistent consenting process also reduces investor and supply chain confidence, which has a negative impact on their willingness to invest.

Ensuring that the consenting process delivers consents swiftly, consistently and at a reasonable cost is an effective mechanism to ensuring finance is not a barrier to deployment of new and repowered sites.

Regarding the cost of the application process, we note that fees for both planning and Section 36 Applications have risen significantly in recent years however our members have noted that planning departments and other statutory consultees are still under-resourced and hard-pressed to respond to applications in a timely manner. No further increases should be made to application fees. Instead, The Scottish Government should review how the money raised from existing applications is currently allocated and ensure that planning departments are properly resourced with professionals suitably qualified and experienced in managing the complexities of wind farm applications.

**Turbine heights** are a key mechanism by which the financial viability of a project can be optimised with the latest, modern turbine designs delivering the most effective energy capture and cheaper energy to consumers. Despite this, Scotland lags far behind our European neighbours in adopting the latest technology.

The latest figures from WindEurope<sup>1</sup> show that the UK had the lowest average power rating of onshore turbines of the countries in Europe at 2.2MW. Finland uses the most powerful with an average power rating of 4.5MW, with the European average being 3.3MW.

Increases in turbine height and blade lengths are critical to greater energy yield; wind speed increases with height, and if the diameter is doubled the swept area increases by a factor of four, which is proportional to captured energy. Far greater cost-effectiveness allows in turn elements such as community benefit and nature enhancement to continue to be supported at similar levels as projects to date.

UK/Scotland is not a large enough market for suppliers to supply nation-specific turbines. Developers are buying from a global marketplace in which turbines under 180m are being discontinued and simply will not be available for large scale commercial projects in the future.

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<sup>1</sup> <https://windeurope.org/intelligence-platform/statistics/>

Despite this, consenting European standard turbine heights in Scotland remains an exception rather than the norm.

Going forward, it is essential that neither national nor local planning policies place restrictions on turbine heights. To date, Landscape Capacity/Sensitivity Studies have been given undue weight in deciding the planning balance and it is imperative that site-specific assessments always take precedence.

In line with the commitment in the draft NPF4 to “*rebalance our planning system so that climate change and nature recovery are the primary guiding principles for all our plans and all our decisions*”, the positive climate change, nature recovery and positive socio-economic impacts of onshore wind projects must be given due weight, recognising that the landscape of a net-zero Scotland will look different from today.

Ensuring Scotland takes its place at the cutting edge of European onshore wind development is another effective mechanism to ensure finance is not a barrier to deployment.

**Nature benefit and community benefit/shared ownership** are key components of best practice in onshore wind development and costs are built into business models. However, the financial landscape for onshore wind has changed significantly, bringing far greater financial pressure to bear on the development of competitive, financially viable projects.

If the amount of money to be spent on these areas is to be optimised, it is essential that the other financial demands set out in this section are reduced and there are realistic expectations of what can be delivered within the new financial landscape.

**Length of consent** in relation to financial viability and business models is not reflected within the consultative draft. The current practice of issuing consents for 25-30 years is inconsistent with the key role of onshore wind in helping Scotland achieve net-zero at the lowest cost. Restricting the onshore wind industry to such timescales of consent impacts business models and the cost of finance, both of which reduce financial viability.

Apart from mineral operations, wind farm developments are one of the only other land uses that are also subject to time-limited permissions. Moving forward in perpetuity consent should be standard practice rather than continuing with the status quo.

**3. Can more can be done to support the use of Power Purchase Agreements/Private Sector Finance? Is there a need for more policy signals from Scottish Government, and/or UK Government, to provide investment security/surety? (Yes, No, I don't know)**

**Yes.**

The wording here needs further clarification as every project requires a PPA. We assume this question specifically refers to corporate PPAs which is a new emerging market and can provide another form of revenue stability.

SR welcomes The Scottish Government's efforts to create within its powers the best possible situation and supportive environment for corporate PPAs and other financial mechanisms to come forward.

Two key considerations in securing a corporate PPA are ensuring projects are as competitive as possible and finding corporates with sufficient long-term buying power and credit ratings to make a corporate PPA bankable.

With regards to ensuring projects are as competitive as possible, given Scotland's wind resource, Scottish projects should be capable of winning contracts at the UK level. However, for the reasons set out in our answer to Question 2, it is difficult for onshore wind to compete against incumbent technologies. By addressing the issues set out in our answer to Question 2 utilising the levers available to The Scottish Government, the competitiveness of projects can be optimised.

The issues set out in our answer to Question 2, and the uncertainties they cause, also make it very difficult to plan a new project to compete in a corporate PPA auction. Currently, it tends to be luck in terms of timing, which dictates whether a project is mature enough to compete in an auction.

With regards to bringing forward more corporate PPA auctions, it must be recognised that there are a limited number of corporate entities who have the long-term buying power and credit ratings to deliver these contractually complex projects.

A low-risk way for The Scottish Government to champion the value of corporate PPAs would be seeking to sign renewable corporate PPAs to supply its own premises.

It may also be possible for The Scottish Government to take on an aggregator role where they bring together smaller corporates into a framework to increase the corporate PPA market, but this would entail significant risk for The Scottish Government. We would recommend further discussion with The Scottish Government, the project financing sector, and Scottish Renewables to explore this possibility.

It must also be borne in mind that we expect off takers' willingness to pay for green PPAs will decrease over time as, with increasing decarbonisation of the power sector, the 'green value add' for customers (in comparison to the market average), diminishes.

#### **4. Chapter 1 also underlines the Scottish Government's strong commitment to the role of community energy, and to community benefit and shared ownership. In what ways can we maximise the benefits of these policies as onshore wind development and repowering increases over the coming decade?**

SR supports the ambition for more **community energy**, with communities owning their own renewable projects and using the income generated to strengthen and enhance their communities. Until it closed in March 2019, the main financial mechanism for enabling communities to undertake such projects was the Feed-in Tariff (FiT).

The Scottish Government funded Community and Renewable Energy Scheme (CARES) has also played a vital role in supporting Scotland's communities to engage in renewable energy projects.

The UK Government has made it very clear that the FiT will not re-open, and it is not clear what financial mechanism will bring forward community energy projects in the future.

Energy Saving Trust/Local Energy Scotland have previously produced detailed analyses and recommendations for the mechanisms needed for successful small-scale low-carbon generation, e.g., Energy Saving Trust's small export guarantee consultation response, 2019.

This work should be revisited and refreshed to identify the optimal way to combine the support available through CARES with additional financial mechanisms to enable the development of more community energy projects.

With regards to **community benefit**, we think the time is right to reframe community benefit and community shared ownership to prevent them from being misrepresented as compensation for something imposed on the community. This is an outdated narrative that is at odds with the intention, the level of public support for onshore wind and our nation's net-zero obligations.



We recognise that existing community benefit commitments should continue but going forward we would like there to be options for communities to work in partnership with developers to support communities' decarbonisation, adaptation, and Just Transition ambitions. This would enable communities to benefit from developers' expertise and capacity in addition to financially benefiting from developments.

As the current guidance on community benefit predates the 2045 net-zero obligation, the commitment to a Just Transition and the target of 12GW of onshore wind by 2030, there should be a review of the guidance to ensure we maximise the potential of onshore wind to support the strengthening of Scotland's communities.

We acknowledge The Scottish Government's ambition to see at least 50% of new onshore wind development having a percentage of **community shared ownership**. In 2020 we saw nearly 59% of consented projects offering shared ownership.

This is very positive, and many communities have taken up these opportunities, often with support from CARES. However, some communities find it difficult to take up the opportunity and it can be the case that not all stakeholders are aware of the support and opportunities available.

Engaging in community shared ownership requires significant investment from communities that do not necessarily have the required funding. Engaging in a community shared ownership opportunity also requires a significant time investment, but many community groups are run by volunteers in their spare time. In rural areas, we are also seeing Local Authorities retreat from providing standard services such as infrastructure development, public toilet ownership and maintenance and arts provision, etc. As communities step in to fill these voids, their capacity becomes even more constrained.

A strategic approach to the role that the Energy Saving Trust/Local Energy Scotland, local authorities, development agencies, the Energy Investment Fund and the Scottish National Investment Bank can play in supporting communities to engage in community energy and community shared ownership needs to be developed.

The role that Orkney Islands Council is taking in becoming an onshore wind developer as part of 'Orkney's Community Wind Farm Project' is an interesting case study. It is possible that Local Authority investment in projects could be a useful mechanism for overcoming the challenges that can prevent community shared ownership offers from being taken up, ensuring enhanced community benefit from projects more generally.

We recommend that a Sub-Group of the Onshore Wind Strategic Leadership Group is established to develop new options and frameworks for enabling communities to become active partners in onshore wind projects and in the achievement of net-zero. This should involve Energy Saving Trust/Local Energy Scotland, support agencies and strong community representation.

## **5. What more can be done to ensure that financial mechanisms are available to support development at differing scales?**

Please see our answer to Question 4 regarding the closure of the FiT and possible new financial support mechanisms.

## **Chapter 2: Future Position and Net Zero**

## **6. What are your views on the level of installed onshore wind capacity that will be necessary over the coming decade, recognising the ambition Scottish Government have proposed for 8-12GW?**

***Please share any analysis that you, or your organisation has conducted on the onshore wind contribution to net zero, or any personal perspectives you have.***

SR asserts that Scotland should fully commit to an additional 12GW of onshore wind by 2030, and adopt a 12GW minimum target, instead of terming it an 'ambition'. This is in line with the Climate Change Committee's 6<sup>th</sup> Carbon Budget on achieving net-zero at least cost.

A more detailed analysis of how it would be achieved and the socio-economic benefits it will deliver are set out in the Onshore Wind Industry Prospectus (Oct 2021)<sup>2</sup> produced in collaboration with Renewable UK. In summary, 12GW of additional onshore wind deployment would create 17,000 jobs and generate £27.8 billion GVA for the Scottish economy.

Additionally, the 12GW target should not be considered a cap or limit. The CCC's 6<sup>th</sup> Carbon Budget sets out the likely onshore wind requirements to meet the UK's 2050 net-zero target but acknowledges that things may change as 2030 approaches. The target of 12GW must be viewed as a stepping stone on the way to net-zero that may need to be revised upwards as the UK's journey to net-zero progresses.

We welcome the Climate Change Committee's recent recommendation for The Scottish Government to set out a clear trajectory of the renewable energy generation capacity required to achieve net-zero by 2045, as detailed in their 10<sup>th</sup> Emissions Reduction Progress Report to the Scottish Parliament (December 2021).

It is essential that the 12GW target for onshore wind is placed in the wider context of the need to also deliver 11GW of offshore wind and 4GW of solar PV by 2030, with levels of deployment rising further between 2030 and 2045. Articulating the need for increased deployment across technologies will ensure that we do not become mired in a debate that proposes one technology at the expense of another.

As stated in our answer to Question 1, there must be no complacency in assuming that the 4.5GW of onshore wind consented but not yet built will be built. Likewise, due to the uncertainty of the consenting regime, there must be no complacency in assuming that the 4GW of onshore wind currently in planning will be consented and built.

With the first commercial wind farm in Scotland becoming operational in 1995, it has taken Scotland 26 years to reach 8.4GW of operational onshore wind. We must now grow that to 20.4GW in 8 years and the challenge of achieving this should not be underestimated.

If the majority of the 4.5GW of consented but not yet built capacity is to be brought forward, it will require re-consenting with the latest turbine technology and higher tip heights. As a matter of urgency, The Scottish Government should work in partnership with industry and other stakeholders to implement a mechanism to facilitate the rapid re-consenting of these projects and ensure that planning policy including the NPF4 reflects this.

As stated in our answer to Question 1, the significant barrier that the current planning system presents to further deployment must be acknowledged and addressed. The Scottish Government's response to this consultation and the current consultation on the draft NPF4 must be aligned to ensure planning is an enabler in achieving Scotland's net-zero obligations.

The contents of the OWPS and NPF4 must be aligned on onshore wind to ensure they both provide a positive and consistent platform for the further deployment of new onshore wind projects in the 2020s and beyond. This includes addressing key issues such as the support for new greenfield

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<sup>2</sup> [https://cdn.ymaws.com/www.renewableuk.com/resource/resmgr/media/onshore\\_wind\\_prospectus\\_fina.pdf](https://cdn.ymaws.com/www.renewableuk.com/resource/resmgr/media/onshore_wind_prospectus_fina.pdf)

development, the strong support for repowering, accepting that landscape change is an inevitable consequence of further onshore wind development.

SR is currently preparing a response to the consultation on the draft NPF4. A copy of our response will be provided to The Scottish Government's Onshore Wind Policy and Development Team to highlight the areas where the draft NPF4 undermines the commitments in the OWPS and provide recommendations on how these can be addressed.

In addition, improvements in and speeding up of the consenting regimes (planning application and Section 36 levels) is essential, to ensure that applications are determined timeously leading to delivery on the ground.

The role of Landscape Capacity Studies must be addressed. In general, these studies are overly negative and seek to limit the future deployment of onshore wind, with the large majority of Landscape Capacity Studies finding little or no 'capacity' for new onshore wind, especially of the 'larger' wind turbine typologies, which are often still characterised as those involving turbines in excess of 130m or 150m to blade tip.

Landscape Capacity Studies have been subject to debate at many planning appeals and inquiries. Rather than seeking to identify landscape capacity for development, future versions of these studies should instead deal with landscape sensitivity only. This would ensure the studies remain relevant for longer and leave the issue of capacity to the assessment of individual applications where factors such as cumulative impacts can be considered on a case-by-case basis. It is essential that the draft OWPS addresses this issue head-on to provide certainty to developers and local authorities alike about what role these studies play in the future of onshore wind planning.

## **7. What more can be done to capture the potential and value of hydrogen production from onshore wind and how best can we support the optimal integration of these technologies?**

With its abundant renewable energy resources, Scotland has the potential to generate a significant quantity of green hydrogen to both achieve its own net-zero target and for export to the rest of the UK and Europe. Scotland needs to act quickly and decisively to support green hydrogen production to secure the economic benefits that are critical to achieving a green economic recovery.

Detailed recommendations of how Scotland should support the emergence of a green hydrogen economy are set out in Scottish Renewable's Hydrogen Position Statement<sup>3</sup>. In summary, to attract investment and create confidence in the sector, The Scottish Government should set a green renewable hydrogen target of 3GW by 2030.

The following bullet points are taken from the Scottish Renewable's Hydrogen Position Statement.

This 3GW target should be underpinned by an Action Plan that uses a whole system planning approach that:

- Includes early identification of potential hydrogen demand clusters and commercial-scale green hydrogen production projects.
- Identifies the most cost-effective priorities for the initial deployment of hydrogen in Scotland.
- Identifies the key barriers to the deployment of the green hydrogen economy in Scotland and articulates the actions that will be taken to address them.
- Identifies the supporting infrastructure, including storage, distribution, and shipping, that will be required to support the emergence of a green hydrogen economy in Scotland and articulates a pathway to ensuring this infrastructure is put in place.

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<sup>3</sup> <https://www.scottishrenewables.com/publications/984-policy-position-paper-on-green-hydrogen>

- Articulates a support mechanism that incentivises investment in both the supply and demand side of the clusters, projects and priorities identified to attract international investors.
- Provides flexible funding programmes covering each part of the hydrogen value chain with ring-fenced and prioritised support for green hydrogen production.
- Identifies the places in Scotland where hydrogen is expected to be the most cost-effective or practical method of decarbonising heat and ensures that the evidence base that is required to make informed decisions on heat decarbonisation in a Just Transition is prioritised and accelerated.
- Articulates how hydrogen infrastructure will be treated in the planning and consenting system, ensuring that the planning system is fully supportive of Scotland's hydrogen ambitions.

Whilst there may be some opportunities for co-location of onshore wind and electrolyzers it is expected, subject to the outcome of ongoing policy considerations related to the Renewable Transport Fuel Obligation (RTFO) and Low Carbon Hydrogen Quality Standard, that most electrolyzers will be grid-connected and located close to hydrogen users and optimised to meet off-taker hydrogen demands.

In addition, co-location on onshore wind sites may not always be desirable or possible because of the availability of water, the onsite requirements of hydrogen storage, potential visual impact, and access for hydrogen transport (especially in bad weather).

We would ask The Scottish Government to support industry efforts highlighting that it is not appropriate that grid-connected electrolyzers should pay environmental levies as one decarbonisation technology should not be subsidising another.

## **8. In what way(s) can we maximise the benefits of repowering over the coming decade?**

SR welcomes the generally positive statements supporting repowering and the recognition that it will be a key factor in delivering net-zero alongside the need for new greenfield developments. Achieving a total of 20.4GW of onshore wind deployment in Scotland by 2030 is a challenging target and we cannot afford to undermine its achievement by having developed sites be decommissioned.

This needs to be matched by clear guidance in NPF4 and future Development Plans on what strong support for repowering means in practice to ensure the benefits of repowering are delivered. The draft NPF4 does not offer any higher level of support for repowering proposals than it does for new sites – and the strong in principle support for repowering set out in the OWPS is not matched by the draft NPF4 policy. As noted earlier, a much greater alignment of OWPS and NPF4 is needed.

As Scotland's onshore wind sector matures, there will be a need to continually repower with the latest modern turbines available. There is also a need to implement consent in perpetuity to maximise the use of existing infrastructure and minimise demands on the already over-stretched planning system.

The language on repowering in the OWPS must be strengthened to reflect that repowering offers opportunities for Scotland to build on lessons learned, achieve net-zero obligations, and improve the design of existing sites with fewer, larger, and more efficient turbines.

An example is a project in South Lanarkshire and East Ayrshire; the Hagshaw Energy cluster which is looking at a more collaborative and coordinated approach to onshore wind. They are also seeing successful repowering with modern scale turbines being deployed. Importantly this project is looking more holistically at land use across a large area that is likely to see onshore wind power

for a long period of time, they are questioning how better value for developers, authorities and communities can be delivered and to date, this has been a positive process.

To make the most efficient use of existing infrastructure as we work towards the 12GW target, policy should support the development of larger clusters of wind farms. Extending existing wind farms and locating new greenfield development between or adjacent to existing wind farms maximises the use of existing infrastructure such as access tracks and minimises the need for new infrastructure.

The development of clusters supports a more holistic approach to land use and nature recovery as is being demonstrated by Hagshaw Hill. It will also enable the development of 'carbon parks' where renewable energy generation, nature recovery, carbon sequestration and access to green space for walking, running, and cycling are combined in ways that create quality, green jobs and support a Just Transition.

To date policy around repowering and greenfield development has focussed on individual sites and has approached these two types of development as separate issues. Policy must now evolve to facilitate this more holistic approach to onshore wind development in Scotland.

We are concerned that the commitment to repowering continues to be undermined by weak and ambiguous language with the use of phrases including '*in the right place*' and '*an opportunity to review*'.

We disagree with the statement '*not all developments will be considered appropriate for repowering*' and the wider use of the word '*appropriate*' in relation to repowering. The EIA process is well suited to identifying potential significant effects and the appropriateness of particular sites should not be prejudged. It should only be by rare exception that a site is not repowered and suggestions to the contrary have no place in policies designed to achieve net-zero.

There is a strong case for the OWPS to introduce a very clear policy position that there will be a 'presumption in favour' of proposals to repower existing wind farms, recognising the important role such developments will play in achieving the 2030 and 2045 GHG reduction targets, alongside new greenfield development.

Repowering should not become an opportunity to create barriers on existing consented sites. It is essential that policies ensure repowering is as streamlined and as efficient as possible to maximise the benefits.

When considering repowering proposals, consideration should be given to providing guidance to local planning authorities about the role and scope of Environmental Impact Assessments (EIA). Simple lifetime extension proposals will likely give rise to less potential for significant environmental effects than proposals involving physical extensions to sites or those involving the replacement of existing turbines with newer larger turbines. As such, a simplified but proportionate approach to EIA will help with the consideration of such applications, potentially speeding up the assessment and determination processes, but still ensuring that various regulatory provisions are addressed in full. This could involve scoping an EIA to more proportionate levels for repowering proposals than those involving new greenfield development.

### **Chapter 3: Barriers to Deployment: Technical and Reserved Matters**

**9. We would be grateful for comments on the issue of aviation lighting and suggestions for the focus and outputs of the Aviation Lighting Working Group – what are your views on the assessment of aviation lighting and how this should be undertaken?**

We welcome the inclusion of aviation lighting in the OWPS and paragraph 3.2.6 stating that the aviation industry must adapt its systems to operate in a landscape that contains turbines rather than the wind industry continuing to be expected to find mitigation solutions. It is essential that the aviation industry should have the technology installed that will operate in a 2030 Scotland that has an onshore wind capacity of at least 20.4GW.

While we welcome this intention as it should allow aviation bodies to consider aviation mitigation in a strategic manner, rather than on an application-by-application basis as is often the case at present, we are concerned that aviation bodies are not adequately resourced to take on these additional responsibilities. Without adequate resourcing, there will continue to be a bottleneck in the consenting regime that will delay the delivery of projects on the ground.

We urge a collaborative approach between The Scottish Government and UK Government to build on the current positive experiences and intentions to remove aviation barriers to onshore wind deployment.

To note, The Aviation Management Board (AMB), which is run by the Department for Business, Energy and Industrial Strategy and reports to the Minister for Business, Energy and Clean Growth has recently developed several workstreams to facilitate a favourable policy landscape in the UK for onshore wind which is as follows:

- Review of CAA policy and guidance (CAP764) on wind turbines and an attempt to create a single point of contact (as per example of OWF and MoD which enabled single point of contact in the instance of responsibility being split across multiple departments).
- Review of planning guidance – NPPD and PPG. Although this change would only apply to future onshore wind projects in England, it aims to be a demonstration of goodwill and hopefully future-proofing should we see a step-change in onshore wind development in England.
- Creation of Onshore Wind Aviation Delivery Group (sub-group of the RenewableUK Aviation Working Group) tasked with developing a more collaborative and standardised approach to mitigation.

With regards to the Aviation Lighting Working Group, careful consideration needs to be given to appropriate representation from the relevant policy, regulatory, industry stakeholders and technical experts while avoiding it becoming a large-scale talking shop. The Terms of Reference (ToR) and work programme need to be focused on delivering against priorities and time-bounded to deliver effective working.

### **Key priorities for the Aviation Lighting Working Group**

To quantify the impact that aviation issues will have on the achievement of the 12GW by 2030 target, we recommend a workstream to **identify current issues and future opportunities for deployment**. This workstream would collate an evidence base that quantifies how many GWs are being held up by aviation barriers.

If technological advances mean aviation lighting can be switched off in the future, then this approach can be adopted but this will not be possible for every project. In the meantime, we need to continue to deploy projects as not doing so would result in the failure to meet the 2030 12GW target.

While Question 9 explores aviation lighting, the question does not acknowledge that there are wider challenges regarding the transparency of aviation-related costs and ensuring navigation service providers do not view aviation objections as a revenue stream for their businesses.

Although all commercial arrangements require the use of non-disclosure agreements to protect commercial sensitivities, these must not be so restrictive as to prevent the necessary transparency and oversight to ensure efficient delivery and best practice.

**A review of current processes for mitigation accompanied by recommendations** that move towards transparency in mitigation measures and costs should be undertaken. We recommend that **the Aviation Lighting Working Group looks to work with the Civil Aviation Authority (CAA) and industry to develop these recommendations.**

**The Scottish Government should put in place measures to ensure transparency in how costs are calculated and apportioned plus ensure excessive costs are not passed on to consumers.**

**A technological review of existing challenges and current and future available mitigations** should be undertaken to work towards a coexistence framework that operates from 2030 onwards. This should be accompanied by a **review of radar mitigation and airspace utilisation changes** and other regulatory, policy and guidance affecting the aviation industry in line with 2030 coexistence ambitions.

There are also **serious issues regarding the disproportionate weight given to the Landscape and Visual assessment of aviation lighting**, particularly night-time views, within the planning process. Of particular concern is printed and digital representations that do not provide an accurate representation of how such lighting is perceived by the human eye. Furthermore, the narrow window within which photographs need to be taken to meet the current guidance ignores the fact that it is representative of views for a very small part of the night – just after dusk. It also means that surveyors may need to visit the same location on successive nights to get satisfactory baseline imagery from a single viewpoint.

The Aviation Lighting Working Group should **revise the guidance produced by NatureScot on night-time visualisation assessments** to ensure it reflects the views of all key stakeholders. This revision should include addressing the disproportionate burden taking photographs within a narrow time window places on projects which are likely to have multiple night-time viewpoints to represent. It should also explore how digital software can be used to manipulate photographs taken during the day to match the conditions of representative photos taken from the area at night, significantly reducing the burden and reducing the risk of night-time work for surveyors.

Following this, work should be undertaken to ensure this guidance is applied consistently within the planning system.

Where aviation matters are relevant to the determination of an application, **some aviation bodies do not engage meaningfully at the pre-application stage.** This means that at the application submission stage aviation matters are not fully resolved and it is common for aviation bodies to then object. This then triggers rounds of further consultation, in many cases leading to an updated assessment, amendments to the EIA, potential design changes and the resultant costs and delays to the application process.

Many of these problems can be addressed with earlier and more meaningful engagement with the aviation industry. Developers are keen to engage early but are often met with resistance because of a lack of resources within the aviation industry to meet the demand for pre-application engagement. **The Aviation Lighting Working Group should identify a mechanism through which early engagement can be facilitated.**

**10. We would also be grateful for your views on network charging and any of the other aspects set out under section 3.4.**

We agree with the section on network charging in the document. Today, both the magnitude and variability of transmission charging remains a highly significant barrier for renewable generators in Scotland. This regime is leading to disproportionate and unpredictable charges by location that are damaging the deployment of the renewable technologies needed to deliver on legally binding net-zero obligations.

Although Ofgem has provided a welcome signal to review Transmission Network Use of System charges (TNUoS), the recent 'Access and Forward-looking Charges Significant Code Review: Consultation on Mind to Positions' signalled to extend these charges to small distributed generators, which would be extremely undesirable for renewable generators in Scotland.

We note that northern areas of Scotland experience challenges that are making projects unviable. This is a particularly acute issue in islands located outside the main interconnected transmission system (MITS), such as Orkney, which means that transmission connected generators on the island are allocated in the wider TNUoS charge to the nearest transmission charging zone, plus a 'local spur' (a subsea link) charge for transmission to the islands.

The combination of these two elements makes TNUoS charges in this location very high<sup>4</sup>. This area of Scotland has significant wind resources but uncertainty around TNUoS charges and policy outlined in recent publications such as the 'Access and Forward-looking Charges Significant Code Review: Consultation on Mind to Positions' is making projects unviable with little possibility to participate in the next CfD auction. This is an issue not only experienced by northern areas of Scotland but is accentuated further north.

In relation to network investment, it would be important that the next set of regulatory price controls (RIIO2) deliver investment to make sure that enough reinforcement of the grid is in place for renewable generators to connect and repower at the speed needed.

Scottish Renewables welcomed the recent Ofgem decision on the approval of the Shetland HVDC link project that connects the Shetland Isles to the Scottish mainland. The Shetland Islands are home to some of Europe's greatest wind resources, but renewables development on the islands has been limited by the lack of a connection to the UK grid.

We urge The Scottish Government to ensure that these issues remain a priority in the consultation process. We understand that Ofgem is answerable to the Scottish Parliament and can be called to give evidence. Therefore, Scottish Renewables would welcome the opportunity to work with The Scottish Government to put forward our key concerns to Ofgem and make sure that the charging regime, as well as the lack of network upgrade, do not delay and constrain renewable deployment in Scotland.

#### **Chapter 4: Barriers to Deployment: Environmental Factors**

**We highlight that Chapter 4 section 4.1 deals with noise guidance, but no corresponding questions are included in this consultation.**

The use of ETSU-R-97 is well established in the UK and while it has always been the subject of ongoing debate, has not resulted in waves of successful nuisance cases. There has been no

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<sup>4</sup> GHD (May 2021). A Transmission Link for Orkney: an impact analysis on the Orkney Economy. Available: [https://www.orkney.gov.uk/Files/Strategic\\_Projects/Orkney\\_%20Transmission\\_Link\\_Report\\_May\\_2021.pdf](https://www.orkney.gov.uk/Files/Strategic_Projects/Orkney_%20Transmission_Link_Report_May_2021.pdf)



evidence of increasing public concern surrounding noise and we question the evidence of the need for change.

We have significant concerns regarding how this is handled in the document, suggesting the guidance is no longer fit for purpose. A clear statement should be issued by The Scottish Government that ETSU-R-97 prevails until any new guidance is produced.

Regarding the WHO 2018 report mentioned in Sections 4.1.2, 4.1.3 and 4.1.4. The guidance level recommended is based on Lden value, which is an index that is not compatible with noise policy within Scotland including ETSU-R-97, BS-5228, CRTN, and CRN. The level was given a conditional recommendation and would require substantial debate amongst stakeholders since the quality of the evidence used to derive the rating was low. It was marked as low-quality owing to heterogeneity, inconsistency, and imprecision.

The statement in section 4.1.6 that “*ETSU was originally designed for individual turbine sites*” is incorrect. ETSU-R-97 is the assessment of noise from wind farms.

## **11. What are your views on the integration of taller turbines in forested areas?**

It is our view that there is no conflict between achieving the onshore wind deployment levels needed to achieve net-zero, achieving Scotland’s afforestation targets, and bringing our damaged and degraded peatlands back into a healthy active state. With a supportive policy environment, it is possible to include afforestation and/or peatland restoration on the same site and we welcome The Scottish Government’s recognition that taller turbines are the key to achieving this.

We welcome the mention of tip heights within the forestry section of the consultative draft, but it does not mention the separation between the lower blade tip and the forest canopy. Whilst this is a technical point, we highlight the situation in Scandinavia where modern onshore wind turbines are already installed in forested areas with lower tip heights sufficiently high above the forest canopy to ensure that the turbulence difference between the top and bottom tips and any accompanying turbulence issues are mitigated against. The industry rule of thumb is that the separation between the lower blade tip and the mature canopy height must be at least equal to the mature tree canopy height. The resulting implication is that even taller turbines are required in forested areas if key-holing is used.

In addition to taller turbines enabling key-holing in existing forestry, they also enable the planting of new trees beneath turbines. This supports the development of ‘carbon parks’ as described in our answer to Question 8. Combining forestry and wind farms on a single site offers the opportunity to share infrastructure such as access tracks.

We are unclear why this question only focuses on the issue of taller turbines within forested areas. As turbine technology continues to evolve, taller turbines will increasingly become the norm across all of Scotland. There are numerous proposals across Scotland at present where turbine tip heights of circa 200m to blade tip, and above, are proposed. Not all of these sites are in forested areas.

It is essential that policies brought forward by The Scottish Government clearly articulate that the landscape of a net-zero Scotland will look different from today. We are in the Climate Emergency, and we must recognise the need for taller turbines across our landscape now and in the future, and not just in forested areas. While site design, turbine choice and layout remain important considerations, it is no longer acceptable for development proposals to be denied primarily on visual impact.

The OWPS should also include commentary relating to the relationship between existing operational wind turbines and the larger turbines that will come forward in the future. To deliver the

target of 12GW of additional deployment by 2030 it is inevitable that situations will emerge where larger turbines are proposed within proximity to smaller operational turbines.

In several instances objections have been raised to such developments by planning authorities and other stakeholders, due to the scale difference. The OWPS needs to recognise that such scenarios will increasingly arise and that this will be an inevitable consequence of accommodating the additional development and larger turbines required to deliver the GHG reduction targets.

To an extent, the draft OWPS does recognise some of these issues at a high level in Section 4.4, which recognises that meeting Scotland's net-zero ambitions will change how Scotland looks. However, the commentary in Section 4.4, in particular, lacks detail and should be developed further in the next version to tackle these issues head-on.

## **12. Can you provide best practice examples for effective peatland restoration (with carbon benefits) alongside the development of onshore wind?**

Examples of best practice in effective peatland restoration can be found in SR's publication *Wind Power and Peatland: Enhancing Unique Habitats*<sup>5</sup>, which looks at more than £2.5 million of work carried out by three renewable energy businesses at sites across the country. A copy of this report is attached to this consultation response as an appendix.

Additional SR Member examples are given below:

- Work was carried out on EDF's Corriemoille<sup>6</sup> wind farm to restore 55 hectares of peat bog; saving 49 tonnes of CO<sub>2</sub> equivalent per year. Slowing the active erosion of peat should save a further 31.5 tonnes of CO<sub>2</sub> equivalent per year.
- Significant peatland restoration is proposed at Statkraft's Berry Burn Wind Farm Extension, which was subject to a catastrophic wildfire in 2019, devastating the blanket bog and wet heath habitats throughout the site. The associated habitat management plan will restore habitats by raising the water table and re-wetting at least 57 hectares of habitat. Re-wetting will be undertaken using a number of techniques with the primary measure being to use the peat, excavated during the construction of the development, to block a network of drainage grips located within the site.

## **13. What, if anything, is not currently reflected in the good practice guidance for constructing windfarms, in relation to building on peat and other carbon-rich soils?**

Peat and carbon-rich soils are not a barrier to development and a target of at least 12GW of onshore wind by 2030 is entirely compatible with Scotland's peatland restoration ambitions.

80% of Scotland's peatland is degraded and the good practice guidance does not reflect that consenting and building a wind farm can lead to positive peatland and carbon-rich soil management which would not take place without the consented project. Furthermore, this section does not reflect the strong track record onshore wind has in responsible construction in such areas.

The report *Carbon-rich soils, deep peat and priority peatland habitat: Expert views on project level assessment* produced by NaturalPower and endorsed by SR provides a detailed analysis of the issues and inconsistencies within the onshore wind consenting process relating to building on peat and other carbon-rich soils. A copy of this report is attached to this consultation response as an appendix.

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<sup>5</sup> <https://www.scottishrenewables.com/publications/739-wind-power-and-peatland-enhancing-unique-habitats>

<sup>6</sup> <https://www.nevisenvironmental.com/peatland/corriemoillie-wind-farm-bog-restoration>

To ensure best practice techniques for bog restoration are used on wind farm sites, a reference to the Peatland Code booklet *Conserving Bogs: The Management Handbook*<sup>7</sup> should be added to the good practice guidance. The techniques included in this handbook are consistent with those adopted in Peatland Code and Peatland Action restoration projects to which wind farm developments could make an important contribution.

In addition, the Carbon Calculator used to reference the carbon payback period and savings from development needs to be updated to use the carbon intensity of our whole energy system (including heat and transport) as its reference point. The current use of the carbon intensity of the electricity grid alone does not reflect that electricity will increasingly be used to decarbonise heat, transport and other sectors currently using fossil fuels. This update should be done in consultation with The Scottish Environment Protection Agency (SEPA), NatureScot and developers.

**14. From your own experience what can wind farm developments offer in terms of protecting and enhancing the natural environment, in particular through the planting of trees to compensate for those lost during windfarm development and through peatland restoration?**

PLEASE NOTE that the issues covered in Questions 14 to 16 have the potential to become overly complicated in terms of developing individual wind farm sites. As it currently stands, policy requires involving different consultees with conflicting demands between peatland, carbon-rich soils, forestry, and net benefits for biodiversity on any given site, requiring the land use both on and off a wind farm site to be considered. It is essential that the OWPS supports the development of a streamlined approach that integrates these considerations into a simplified process that ensures coordination of consultee requirements.

We welcome the policy statement's recognition of the additional benefits delivered through tree planting and peatland restoration by the renewables industry.

Onshore wind development has led to a considerable increase in the number of peatland restoration and woodland planting schemes in Scotland, on and offsite. In addition, onshore wind developments offer the opportunity to enhance these habitats for the benefit of their natural fauna through species-specific habitat management measures such as encouraging the growing of certain beneficial floral species, or removal of invasive species. Statkraft for example has demonstrable evidence of this through the Berry Burn Wind Farm and Berry Burn Wind Farm Extension schemes which became the victim of a catastrophic wildfire that occurred in Spring 2019.

This wildfire severely damaged the onsite bog and woodland habitats, potentially causing significant permanent changes to the landscape. Through the detailed and considerate habitat management plans put in place for these schemes, not only will the lost woodland and bog habitat be replanted and restored, but site-specific fire prevention measures will be implemented to minimise the level of destruction caused by any future wildfires. Therefore, these measures, put in place by developers, will help protect and ultimately enhance these sensitive landscapes in Scotland. It is now recognised that these catastrophic events are more likely to occur with Climate Change, and therefore, onshore wind development projects have the opportunity to protect these sensitive habitats, directly and indirectly.

The Scottish renewable's industry has amassed a considerable level of technical specialism in the development and successful delivery of large-scale peatland restoration schemes over the last 20 years. As a result, the industry can be a key partner in delivering The Scottish Government's targets for peatland restoration of 250,000ha by 2032 to help them meet their net-zero obligations.

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<sup>7</sup> <https://www.iucn-uk-peatlandprogramme.org/resources/restoration-practice/conservation-handbook>

As detailed in The Scottish Government's Climate Change Plan, achieving this target requires considerably more than the current aim of 20,000ha per year with only 6,000ha currently being achieved. Some of the key barriers to achieving this target over this period include the availability of trained civil contractors and the formation of corporate partnerships to allow risk reduction for landowners (peatland restoration schemes carry unacceptable risks for some landowners at present).

However, a core issue for the onshore wind industry is that additionality is not clearly recognised and quantifiable for biodiversity enhancement – including peatlands, and the lines are blurry between mitigation and additionality.

We also highlight a significant change in January 2021 with the introduction of the voluntary carbon market for peatland restoration schemes. Whilst in general this should be a positive development for peatland restoration, it may result in wind farm developments delivering significantly fewer peatland restoration projects. As peatland restoration will have a financial value to landowners, they may not wish wind farm developers to undertake peatland restoration as part of their project as additional income can be generated by selling the peatland restoration opportunity through the carbon market.

Peatland Code Guidance on the appropriate level of mitigation required for projects does already exist however it is largely used to inform mitigation measures as part of the Habitat Regulations derogation process. Developing peatland restoration additionality guidance for renewable energy schemes will remove the adverse and unintended consequences of the Peatland Code Guidance. A working group including the renewables industry and practitioners delivering at scale, NatureScot and IUCN UK/Peatland Code should be convened as a matter of priority to look at potential guidance on additionality.

**15. Can you provide best practice examples of encouraging biodiversity protection and enhancement, including connectivity between natural areas in wind farm sites?**

SR member Statkraft operates four onshore wind farms across Scotland, all of which implement habitat management plans to enhance biodiversity, including habitat restoration. Recognising site-specific opportunities is fundamental to an appropriate habitat management plan, including recognising habitat fragmentation and the ability to connect areas to enhance biodiversity.

At Statkraft's Twentyshilling Hill Wind Farm site, the habitat management plan will create and enhance habitats for black grouse. The prescriptions include native mixed tree planting, and grazing management to protect the newly planted trees. The creation of these areas of woodland will expand on the existing woodland in the area, creating further habitats for black grouse to utilise whilst providing wildlife corridors allowing species to safely access new areas of the site with the protection of vegetation cover.

Similarly, at Statkraft's Berry Burn Wind Farm measures have been implemented to enhance foraging and nesting habitats for black grouse including enhancing the structural diversity of wet heath habitats, increasing the abundance of heather coverage on blanket bog, and enhancing trees and shrubs to improve foraging habitat. The habitat management plan for Berry Burn Wind Farm Extension aims to expand on the success of these measures and provide a joined-up and collaborative approach to neighbouring habitat management plans.

Peatland restoration is a top priority for our members, with many opportunities for enhancement or creation across our development portfolio. For example, at Berry Burn Wind Farm Extension, Statkraft has proposed best practice peatland restoration measures to improve and expand on blanket bog habitats present on site, including areas subject to severe fire burn (see our answer to Question 14). Due to ongoing monitoring and reporting of peatland restoration measures, Statkraft has proposed tried and tested prescriptions such as drainage blocking using peat (excavated to facilitate the construction or the development) but also using man-made materials

such as plastic grips. These measures have been successfully implemented and are proven to improve the quality of blanket bog habitats.

Ongoing monitoring will ensure the success of this habitat management plan and will include the installation of groundwater monitoring devices to ensure the water table is rising, enabling the successful restoration of these habitats.

**16. What is your organisation doing to go above and beyond when it comes to biodiversity protection, conservation, and enhancement in wind energy development sites?**

This question requires clarifying as it does not specify 'above and beyond' what. In answering this question, we have assumed that it refers to measures above and beyond that required by EIA mitigation measures.

Our members regularly commit to habitat management plans that go above and beyond the requirements for EIA mitigation and ensure the successful delivery of these plans. To do this our members work with relevant technical bodies and organisations in the industry, such as the Association of Environmental Clerk of Works (AECoW), to collaborate and share knowledge and information with others in the industry. AECoW *"aims to raise professional standards"* of those working in the industry and our members understand there is a value in developers participating in these conversations and discussions.

While there is widespread good practice, please see our answer to Question 14 regarding the lack of clarity over how mitigation and additionality are quantified and recognised within the development of onshore wind sites.

As set out in our answer to Question 15, Statkraft successfully implements habitat management plans and species protection plans across their project portfolio and has a dedicated ecology specialist who oversees their implementation.

ScottishPower Renewables (SPR) has actively supported a range of measures relating to the natural environment, including funding:

- Several published research projects on breeding waders around wind farms in collaboration with RSPB
- Research in golden eagle behaviour around wind farms and the dispersal of juvenile golden eagles more widely
- A black grouse officer post within RSPB for the Argyll region and further in-kind contribution for access to monitoring data

SPR has also carried out surveys to support regional efforts in black grouse conservation and have participated in, and financially contributed to, the Scottish Windfarm Bird Steering Group from 2011–2021.

In addition, SPR pioneered the development and implementation of turbine operations to minimise risk to bats, with information regarding these techniques released as a case study within the 2019 Bats and Windfarms Guidance published by NatureScot (then SNH) (SPR was a co-author based on expertise in this area).

SPR has committed to peatland restoration in quantities which vastly exceed the impacts of development at a cumulative cost of £9 million. Expertise in developing novel methods for forestry to bog restoration was sought for the IUCN Commission of Enquiry into Peatlands 2017-2019 where SPR was invited to act as lead author on the forestry to bog technical review. The methods developed by SPR are now being implemented by FLS, RSPB and NatureScot (then SNH) as part of the PeatlandACTION programme.

## **17. How can habitat management plans better balance protection of the environment with connectivity and the operation requirements of a site?**

The current habitat management plans system is working reasonably well, and Scotland's onshore wind sector has a positive track record in this regard. However, the phrasing of this question is problematic as habitat management plans are not designed to better balance protection with other issues. In answering this question, we have assumed the intention is to ask, "*How can habitat management plans be improved to provide a better balance between protection of the environment, and connectivity and operational requirements of a site?*"

Habitat Management Plans have the potential to fulfil varying functions for developments but are primarily to mitigate the impact of the development, often with additional enhancement measures.

Habitat Management Plans could be improved by including increased onus on undertaking and reporting monitoring results plus sharing successes and failures within the industry. Many projects are now underway, or proposed, with combined years of knowledge to be shared. This information could be taken into consideration on future developments, or revised Habitat Management Plans for existing schemes, to better ensure their success.

Further to this, the industry could benefit from better collaboration between developers to assist in data sharing while encouraging and enabling joint habitat management plans. A consultation exercise was undertaken with NatureScot in 2019 (then SNH) about a collaborative approach to habitat management which, if rolled out, would benefit the local biodiversity of an area. The industry is seeing more extensions to existing schemes, or development alongside existing schemes, and it would be beneficial for the natural environment to ensure a joined-up approach is taken to any proposed mitigation or additionality.

A distinction should be made between the impact of an onshore wind project on habitats, biodiversity, and hydrology – which can be measured and monitored objectively – and visual impacts which can be subjective and reflect changeable perceptions and values within society. While landscape and visual impacts are an important part of the design and assessment process, they are only one element of the wider EIA. They must be considered in a balanced way in light of the Climate Emergency.

The landscape of a net-zero Scotland will look different from our current landscape, and it will include more and taller turbines in addition to forested hills, active wetlands, and restored peatland. All of this should be viewed as a positive sign of a progressive nation proactively addressing the climate and biodiversity emergencies in an integrated way.

In rebalancing policy, it is essential that it reflects established public opinion where the majority consider onshore wind a positive addition to Scotland's landscape and moves on from the outdated narrative that onshore wind is an inherently negative addition to our landscape.

## **Chapter 5: Economic Opportunities**

### **18. What support do Scottish companies need from Scottish Government and agencies in order to successfully bid for and win contracts for the development, construction, and operations of onshore wind farms?**

Historically the development, construction, and operations of onshore wind farms in Scotland have been achieved with a high percentage of local content.

A BiGGAR Economics report, commissioned by SSE and published in April 2021, quantifying the socio-economic impact of SSE's onshore wind projects in Sutherland<sup>8</sup>, found that 67% of the lifetime economic benefit would be to the Scottish economy and 88% of operational expenditure is expected to be with Scottish companies. A similar report<sup>9</sup> produced by BVG Associates for ScottishPower Renewables (SPR) looking at SPR's eight onshore wind farms in southwest Scotland commissioned between 2016 and 2017 found that 74.4% of the development expenditure and 67% of the operational expenditure was Scottish.

As the hiatus in onshore wind construction comes to an end and new projects come forward, it is our expectation that these high levels of local content will continue to be the case.

To ensure we maximise the opportunities for Scottish supply chain companies, it is essential a robust commitment to an additional 12GW of onshore wind by 2030 is made and a reliable, visible pipeline of projects that will deliver this is established. This will give Scottish companies the confidence they need to invest in strengthening their competitiveness in the onshore wind sector.

A key enabler of a reliable, visible pipeline of projects will be the frequency of CfD auctions and onshore wind's continued inclusion within them. Although the CfD mechanism sits with the UK Government, The Scottish Government has a key role in supporting industry to bring forward competitive projects by establishing a consenting system that delivers consents for projects using the latest turbine technology swiftly, predictably and at a reasonable cost.

Through a Sector Deal, there is also an opportunity to build on the good practice that already exists to help local businesses to compete and successfully win contracts during the construction of projects. For example, Muirhall Energy Ltd. commits to awarding contracts to local companies if they tender within 10% of the best bid.

To ensure we maximise the local content of the 12GW of additional deployment by 2030, industry would look to work with The Scottish Government to identify the supply chain opportunities and how best to support Scottish companies to successfully bid for them. Once the supply chain opportunities are clearly identified and articulated, a strategic national approach to supporting the supply chain can be established. Lessons can be learned from the Strategic Assessment that the Scottish Offshore Wind Energy Council (SOWEC) produced around recommendations for supporting the supply chain and getting it ready to bid and win work.

As stated elsewhere in this response, all policy considerations, including those of the supply chain, need to be viewed within the tighter and more competitive financial environment in which onshore wind development now takes place.

**19. Should government consider options for introducing a sector deal similar to that of the Offshore Wind sector and if not, why is that your view?**

SR welcomes the proposal of an Onshore Wind Sector Deal as an effective vehicle for ensuring Scotland achieves the target of an additional 12GW of onshore wind by 2030 and maximises the climate change, nature restoration and socio-economic benefits this additional deployment can deliver.

We recognise that such a Sector Deal would be different from that between the UK Government and the offshore wind sector due to it being within the context of the devolved responsibilities of The Scottish Government.

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<sup>8</sup> <https://www.sse.com/media/uvwh40ma/understanding-the-socio-economic-value-from-sse-renewables-projects-in-sutherland-april-2021.pdf>

<sup>9</sup> <https://bvgassociates.com/wp-content/uploads/2017/09/BVGA-18510-Economic-impact-onshore-wind-report-r3.pdf>

This Sector Deal will also need an accelerated timeline compared to the Offshore Sector Deal, which took approximately four years to establish. We recommend that the Onshore Wind Prospectus, developed in collaboration with Renewable UK, be used as the starting point for discussions.

Following the completion of this consultation, we would seek the establishment of an Onshore Wind Strategic Leadership Group, chaired by the Cabinet Secretary for Net-Zero, Energy and Transport. This group should bring together high-level industry stakeholders to work with the government to develop the details of a Sector Deal.

**20. How can individual organisations (including onshore wind developers, tier 1 suppliers, and the domestic supply chain) work collaboratively to ensure that key manufacturing projects for Scottish onshore wind stays in Scotland?**

The policy statement encourages engagement with domestic manufacturers and ports to ensure Scottish supply chain visibility. We would highlight that developers already have these relationships, but a question mark remains over the nature of the manufacturing being sought. Whilst larger scale manufacturing is more 'iconic', the diversity of opportunities and potential for innovation and job creation may be greater in smaller-scale manufacturing.

As an industry, we are keen to see manufacturing return to Scotland wherever possible, but we must remain realistic about what that means. If there was a firm target and pathway forward, industry could navigate this challenge better.

In terms of manufacturing, a minimum target of 12GW with the right policy support would create an incentive of sufficient size to enable the sector to respond. This would create an opportunity to explore whether blade manufacturers could develop turbine blade centres, as blades are the largest and most difficult part to transport from point of manufacture to site. Producing blades either on-site or within a blade cluster located in a strategic area for wind farms would reduce transport costs and emissions while leading to job creation.

We also recommend a coordinated approach that brings together the onshore and offshore wind industry with the emerging tidal stream sectors. Such an approach would bring forward a much bigger supply chain narrative than onshore wind alone. This would create a more compelling investment case for supply chain and manufacturing companies.

In summary, if there were consistently clearer signals coming from The Scottish Government there would be a natural response from industry to deliver at scale.

**21. Circular economy and zero-waste are core principles that the Scottish Government are promoting. Where do you see the economic opportunities in relation to these policy issues lying with onshore wind? And are there any practical issues you think need to be addressed in order to maximise the benefits?**

SR agree with the core principles of a circular economy and zero waste. We recognise that the industry should be doing everything possible to make projects more sustainable. We note whilst 85% of a wind turbine can be recycled, we are locked into linear procurement practices that remain deeply ingrained for minor corrective parts.

We acknowledge that scrapping turbine blades to landfills is not a long-term viable solution but that it remains a small part of the operational life of the projects. The industry is committed to finding solutions and will continue to help Scottish companies such as Renewable Parts and Reblade to grow the opportunities for developing and managing projects during and once constructed.



Renewable Parts has been developing remanufacture and refurbishment solutions for wind turbine components since 2017, successfully building a scalable business model to create a sustainable, circular economy within the wind industry. The transition from a linear to a circular procurement ethos represents one of the most important challenges of our time, as we meet the demands of a rapidly expanding wind turbine fleet in a more sustainable, less carbon intensive way.

Over the course of the past five years, the company has created new jobs in its Innovation Centre in Lochgilphead, which is an area of population decline, and now employs twelve people who are directly involved with the remanufacture components. This number is expected to triple over the next four years as the company expands into new technologies and components. Renewable Parts has been working with an increasing number of customers, including OEMs, owner/operators, and Independent Service Providers during this period, recirculating over 111 tonnes of material which would have otherwise been scrapped, to reduce carbon footprint by over 320 tonnes.

To build on the excellent work of Renewable Parts, Scottish engineering should be supported to develop advanced performance engineering solutions that identify parts before they break. This would support the development of an additional stream to the supply chain providing repairs.

**22. How can the Scottish Government best support skills for the future of the onshore wind sector? Specifically, we would be interested in oil and gas transition, apprenticeships and entry-level positions for young people, as well as any other experiences you can share.**

We welcome The Scottish Government's support for skills for the future of the onshore wind sector. In the transition from oil and gas to renewables it is important to note that the average salaries associated with the former are considerably higher than those in renewables at present, but the industry believes people are increasingly willing to make this trade.

Some of the reasons for making the shift from oil and gas to renewables are:

- Longer-term career prospects and progression
- Environmental and sustainability considerations
- Develop transferable skills
- Opportunities to spend more time with family
- Better work/life balances
- Being based onshore locally rather than being offshore 2 weeks on, 2 weeks off for example

From a Just Transition, Scotland-wide perspective we recommend The Scottish Government continue the support of STEM, technical planning skills, apprentices, and engineering. Courses with a strong focus on renewables, such as at Strathclyde University and at Heriot-Watt University. In addition, online courses and e-learning are also needed to help ensure that rural areas such as the Highlands and Islands are not left behind.

There are also considerable skills gaps within statutory consultees for posts such as experienced consenting specialists such as town planners, ornithologists, and ecologists, etc. A key reason for this is that skilled, experienced experts within key parts of the EIA chain can earn higher salaries in the private sector. To address these gaps, we support the Royal Town Planning Institute's (RTPI) call for a comprehensive skills strategy for the planning system.

There is also an ongoing shortage of landscape planners who are required for a project to be consented. We recommend The Scottish Government supports an apprenticeship programme with the Landscape Institute for Landscape Architects in Scotland as already exists in England.

We recommend that The Scottish Government could help deliver ambitious targets by supporting the training of town and country planners in collaboration with RTPI where there are skills gaps.

### **23. Do you have any views on the impact of wind farms on tourism?**

The report *Onshore Wind and Tourism in Scotland*<sup>10</sup> published by BiGGAR Economics in November 2021 contains an analysis of 44 wind farm case studies in Scotland and finds no evidence of a link between wind farm development and trends in tourism employment. The researchers noted that the total number of turbines across Scotland increased from 1,082 in 2009 to 3,772 in 2019, during which period employment in tourism-related sectors in Scotland also grew by 20%.

Analysis of the rates of change in the number of onshore wind turbines and in tourism-related employment in local authority areas, finds that there is no correlation between the two factors. The tourism economy in local authorities that had seen the largest increase in onshore wind energy activity had performed just as well, if not better, than other areas in Scotland.

No reliable evidence has ever been presented to substantiate claims by objectors that wind farms have adverse impacts on tourism. This conclusion has been reached by many Reporters at Public Local Inquiries (PLIs) and then endorsed by the Scottish Ministers over the past decade. To avoid consenting delays a more proportionate approach to assessing potential impacts needs to be adopted.

In addition to wind farms, in general, having no negative impact on tourism, onshore wind projects provide greater access to green spaces for walking and cycling. Data from sites such as Strava show that many wind farm tracks in Scotland are used to some degree by dog walkers, bikers, runners, etc.

Specific wind farms have also become tourist attractions, providing access to green spaces for walking and cycling, as well as education, as has been demonstrated at Whitelee<sup>11</sup> and as is being explored in the Hagshaw Hill cluster project. There is also potential for wind farm tracks to be used to help establish new long-distance routes as has happened with the Griffin Wind Farm providing an essential link in the River Tay Way.

In light of this evidence, we robustly challenge the view that onshore wind is a 'concern' for tourism. Scotland has established a global reputation as a leader in climate change action and renewable energy. Our net-zero landscape will include more and taller turbines in addition to forested hills, active wetlands, and restored peatland. All of this should be viewed as a positive sign of a progressive nation proactively addressing the climate and biodiversity emergencies in an integrated way and our national initiatives to promote Scotland as a desirable tourist destination should reflect this.

### **24. What is your organisation doing specifically to promote diversity and inclusion in the onshore wind sector?**

The onshore wind industry is fully committed to ensuring we are a diverse and inclusive sector that provides a positive and welcoming environment for all. The industry offers a huge array of different job types and interacts with a wide spectrum of stakeholders, including the future workforce.

It is the view of our industry that we must look beyond gender aspects of inclusion to include all disabilities, neurodiversity and strongly consider mental health aspects, providing support where appropriate and needed. The Scottish Government should continue to encourage employers to be more understanding and flexible to all employees, at all levels, providing support beyond business needs.

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<sup>10</sup> <https://biggareconomics.co.uk/onshore-wind-and-tourism-in-scotland>

<sup>11</sup> [https://bvgassociates.com/wp-content/uploads/2019/06/BVGA\\_SPR-Whitelee\\_10\\_year\\_anniversary-r1.pdf](https://bvgassociates.com/wp-content/uploads/2019/06/BVGA_SPR-Whitelee_10_year_anniversary-r1.pdf)

Many organisations in the onshore wind sector already actively support policies and initiatives that promote diversity and inclusion using the approaches set out above. We also acknowledge that increasingly entry/mid-level employees are encouraged to apply for jobs at organisations where they see equal, diverse, and inclusive representations at board level.

Industry would welcome the opportunity to work with The Scottish Government through an Onshore Wind Strategic Leadership Group to explore ways that good practice in individual companies can be used as the basis for developing a strategic, national approach to diversity and inclusion in the onshore wind sector.

**25. Given the significant contribution onshore wind is expected to make to our net-zero ambitions, and the structure of the ScotWind process for offshore development, should Supply Chain Development Plans be introduced for onshore wind developments in Scotland? (Yes, No, I don't know – why?)**

**Don't know.**

The onshore wind industry fully supports the ambition to ensure that onshore wind projects in Scotland continue to have a high percentage of local content and the supply chain are supported to successfully bid for projects.

However, we are uncertain that Supply Chain Development Statements are the most effective way to achieve this in onshore wind. In the offshore space Supply Chain Development Statements sit within the ScotWind leasing round but onshore The Scottish Government is rarely the entity issuing the site lease. Supply chain statements also exist within the CfD bidding system, but this is a UK Government mechanism.

We would refer to our answer to Question 17 regarding industry and The Scottish Government undertaking collaborative work to identify the most effective mechanisms for ensuring high levels of local content and a thriving Scottish supply chain.

## **Annexe 1: Eskdalemuir working group and policy proposals**

**26. Does the position described in the draft Onshore Wind Policy Statement accurately reflect your view on the current position in relation to the Eskdalemuir Seismic Array and the barrier it presents to deployment in Scotland? (Strongly agree, Mostly agree, Mostly disagree, Strongly disagree – why?)**

We **mostly agree** that the position described in the draft Onshore Wind Policy Statement accurately reflects the current position in relation to the Eskdalemuir Seismic Array and the barrier it presents to deployment in Scotland.

An important omission is that paragraph 15 of Annex 1 does not record that the current approach to noise budget management operated by the Ministry of Defence's (MoD) was recently the subject of a Judicial Review. The approach of the MoD had been to consider the noise budget of each project on a first-come-first-served basis where projects over 50MW were assessed at the EIA scoping stage and projects up to 50MW at the planning application stage. Thus, in deciding whether any unused noise budget as was available at that time could be allocated to a project, the MoD treated differently applications for consent made under the Town and Country Planning (Scotland) Act 1997 from those under Section 36 of the Electricity Act 1989.

The JR judgement found this approach to be unlawful. It is now incumbent on the MoD to prepare a new approach to noise budget allocation not distinguishing between applications made under either act. Without adoption by the MoD of a new approach to noise budget allocation, the potential to maximise renewable energy deployment within the consultation zone through an enabling policy to be put in place by The Scottish Government would be unfulfilled.

It is essential that the MoD process for assessing its satisfaction with mitigation measures is clear and transparent and should also recognise commercial viability and reflect The Scottish Government's ambitions for the deployment of onshore wind to meet 2030 interim and 2045 net-zero targets.

Our proposals for a reconfigured Eskdalemuir Working Group (please see our answer to Q29) would allow sensitive technical and commercial information relating to the development of mitigation measures to be discussed in confidence. We understand that the MoD has sensitive information to protect and will not want to share it widely with the renewables industry. We, therefore, encourage The Scottish Government to engage directly with the MoD to ensure measurements and mitigation measures are clear and transparent to the satisfaction of The Scottish Government.

**27. Acknowledging that the Scottish Government require further evidence before taking a policy decision, at this point and reflecting the options outlined above do you/your organisation have any thoughts?**

We welcome progress regarding the constraint to onshore wind deployment within the 50km Eskdalemuir Consultation Zone that has prevailed since 2017. Given the scale of the area within the consultation zone, this constraint needs to be resolved as a matter of urgency and we are encouraged that progress appears to be made towards a policy solution wholly within the devolved responsibilities of The Scottish Government.

Our position acknowledges that the ground noise from turbines logarithmically diminishes with distance from the array. Thus, the potential for onshore wind deployment in the consultation zone to contribute to net-zero targets should be maximised by a Scottish Government policy promoting deployment at distance from the array. Deployment close to the array, which disproportionately uses noise budget, should be discouraged by the policy. A combination of a "no deployment zone" and a "mitigation zone", both at distances to be informed by the Phase 4 technical report is our preference.

We recommend that The Scottish Government adopt a policy to maximise the potential to deploy onshore wind development within the consultation zone. To achieve this, further action is required by the MoD to develop, and consult on, a new approach to the management of the Eskdalemuir noise budget following the judgment of the recent Judicial Review that found the MoD's current approach to be unlawful.

SR would be pleased to work with the MoD, The Scottish Government and other stakeholders in the development of the new approach to noise budget management. This must progress rapidly in order that the pipeline of onshore wind projects in the consultation zone currently constrained by the noise budget can be deployed and so contribute to achieving the target of an additional 12GW of onshore wind by 2030.

Existing projects with noise budgets should be entitled to retain any noise budget allocated to them with respect to any subsequent design revisions, such as blade tip height extensions, or future re-powering proposals. Such modification applications should be assessed for new noise budget only where the MoD has determined the allocated budget to be exceeded.

**28. If Option 2 or Option 3 were to be selected, how could we best achieve or calculate an acceptable level of impact? (One example being an agreement of a standard noise budget to MW generated proportional allocation i.e., for X MW generated = X amount of budget allocated).**

The consultation refers to the Eskdalemuir Working Group Phase 4 report which is not currently publicly available. There is also no industry consensus on the option which will maximise the generating capacity of the Eskdalemuir region of interest.

As such we are unwilling to support a specific option as doing so would be done without reference to all the available data and without the consensus agreement of our members.

**29. Do you/your organisation have any thoughts on how the Eskdalemuir Working Group (EWG) might be restructured to ensure continued engagement for interested parties whilst maintaining the core purpose of the group?**

In the past, there have been issues in the Eskdalemuir Working Group (EWG) with some members using it as an opportunity to listen and gather information without contributing.

We would propose a smaller working group be constituted to actively seek resolutions to the issues relating to the Eskdalemuir Array.

We propose a two-tiered approach. Firstly, a small working group of active members who are empowered to represent their organisations and that can commit resources towards the outputs of the working group. Secondly, a more open forum, to include a wider membership of those who share an interest relating to Eskdalemuir, allowing the work of the working group to be disseminated and discussed.

To ensure such a working group is representative and effective, we propose that The Scottish Government select working group members based on an application process, with membership tied to both developer and the individual applying.

Working group members should agree to a minimum period of group membership to ensure continuity. New working group members should have already observed previous meetings before substitution.

## **Annexe 2: Aviation and renewables collaboration board:**

### **30. We are clear on the value and importance of strategic and productive collaboration between the aviation and wind energy sectors. What are your thoughts on our proposed restructuring of the current effort and activity in this area, and the proposed Aviation and Renewables Collaboration Board?**

SR welcomes the phased handover of responsibility for aviation mitigation which is alluded to in the Offshore Wind Sector Deal to aviation and defence interests from 2030. We are encouraged that The Scottish Government is seeking to take a leadership role and create an Aviation and Renewables Collaboration Board with the transition of responsibility for aviation issues to the aviation industry and appropriate policies and legislation are required to ensure coexistence.

Industry is committed to working with The Scottish Government on aviation matters and we support the proposed restructuring of the current effort and activity with regards to collaboration between the aviation and wind energy sectors.

Building on the Aviation 2030 work, the Aviation and Renewables Collaboration Board is a welcome initiative, which with the right governance and representation, can develop a collaborative programme with the necessary level of stakeholder commitment to push forward on coexistence by 2030.

It will be important for the Aviation and Renewables Collaboration Board to connect with other aviation and renewables working groups that already exist to ensure synergy and avoid duplication of effort. This should include the BEIS-led Aviation Management Board, The Offshore Wind Industry Council (OWIC) collaboration with the MoD and the RenewableUK Aviation Working Group.

We recommend that a representative of RUK's Onshore Aviation Delivery Group sits on the Collaboration Board to facilitate coordination between policy development in The Scottish Government and policy development through the Aviation Working Group and OWIC.

It will also be important to ensure that a supporting working group infrastructure is put in place to enable efficient working practice under the oversight of the Board.

While the list of senior representatives includes 'Defence Policy and Capability' we would seek clarification that this includes representation from the Ministry of Defence as they are not specifically mentioned in section 3.2.12. Without the inclusion of a representative from the MoD this group would be substantially less effective. The primary points of contact to be listed should be:

- Defence Infrastructure Organisation (DIO)
- Defence Airspace and Air Traffic Management (DAATM)
- RAF Capability Strategy (RAF Cap Strat)
- Defence Equipment and Support (DE&S)

### **31. The work of the Aviation and Renewables Collaboration Board may identify and agree the need technical or strategic investment to achieve specific goals or outcomes. What are your views on how work of this kind might be financed?**

To date, industry accepts that appropriate costs are required to be covered but costs of mitigation solutions and aviation-related upgrades, plus how they are calculated, should be disclosed and transparent so that the path to coexistence can be expedited.

The longer-term aspiration should be to explore a phased handover of responsibility for aviation mitigation cost as alluded to in the offshore Wind Sector Deal. Costs for such mitigation could be taken from other aspects such as air passenger duties rather than costs from the energy consumer.

**END**