

Scottish Natural Heritage
Battleby
Perth PH1 3EW



Brendan.turvey@snh.gov.uk

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Dear Brendan

Consultation response on assessing the impact of repowered wind farms on nature

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 industry. We represent around 250 organisations working across the full range of renewable energy technologies in Scotland and around the world, from large suppliers, operators and manufacturers to small developers, installers and community groups, and companies right across the supply chain. The commercial health of Scotland's renewables sector is fundamental to meeting Scotland's 2030 50% renewable energy target and 2032 carbon reduction targets.

Onshore wind is one of the lowest-cost, scalable electricity generation technologies in the UK and has become a crucial part of the UK's electricity system with over 13.4GW of onshore wind capacity. This delivers clean, low-carbon electricity to more than 7 million homes, supports thousands of jobs and generates £5.8 billion in turnover per year.¹ Over half (7.75 GW) of this capacity is in Scotland. In 2017, onshore wind generated the equivalent of c.69% of Scotland's electricity demand while supporting around 8,000 jobs, generating over £3 billion of turnover, and saving over 6 million tonnes of CO₂ per year.²

Scotland will likely need to increase its onshore wind capacity if the Scottish Government's energy strategy and Climate Change objectives are to be met. The Scottish Government's Energy Strategy concludes that around 17GW of total installed renewable electricity capacity will be required in 2030 to meet Scotland's decarbonisation targets.³ Ensuring that a large proportion of existing onshore wind farms are repowered and optimised to yield as much of the available wind resource as possible will be a key part of delivering these ambitions, as captured in the Scottish Government's Onshore Wind Policy Statement (OWPS): "The Scottish Government's position remains one of clear support in principle for repowering at existing sites. This is on the grounds of its potential to make the best use of existing sites, and— through the continued use of established infrastructure, grid connections and strong wind resource— provide a cost effective option to deliver our renewable and decarbonisation targets."⁴

The first larger-scale commercial onshore wind farms were developed in the late 1990s and early 2000s and we are starting to see older projects reaching the end of their original operating lives. As we move into the 2020s, some of the earliest onshore sites will come to the end of their economic lives, and this trend will continue as we approach 2030. Wind farm owners will be faced with the choice of whether to decommission their asset, extend the life of the site or whether to repower. Life extension will allow the site to keep operating for longer than its consented period. Repowering a site will enable the use of the latest turbine technology and operational equipment, whilst taking advantage of cost efficiencies and operational synergies.

¹ Scottish Government Renewable Electricity Output Calculator

² Office for National Statistics

³ <https://www.gov.scot/Resource/0052/00529523.pdf> (page 34)

⁴ <https://www.gov.scot/Resource/0052/00529536.pdf>

6th Floor, Tara House, 46 Bath Street,
Glasgow, G2 1HG
☎ 0141 353 4980 📧 @ScotRenew
www.scottishrenewables.com

Scottish Renewables Forum Limited.
A company limited by guarantee in Scotland No.200074
Registered office: c/o Harper Macleod,
The Ca' d'oro, 45 Gordon Street, Glasgow G1 3PE

Policy

A supportive planning and policy framework for repowering and life extension will be required to ensure that Scotland and the UK continue to benefit from the economic and environmental benefits that onshore wind brings, the UK's level of renewable energy capacity does not regress, and that our targets for increased renewable electricity generation can be achieved. Existing onshore wind farm sites have already been determined to be suitable for use as a wind farm and acceptable from a planning perspective and— supported by good design and technological innovation— they should again be capable of fitting this description and making an even greater contribution to a low carbon future as repowered sites. This contribution may also be enhanced by the co-location of compatible technologies such as storage and solar.

Recent Government policy statements have offered clear support for the repowering of onshore wind farms. As well as the Scottish Government's OWPS, the UK Government has excluded repowering of onshore wind sites from additional planning requirements set out in the recently revised National Planning Policy Framework (NPPF).⁵ The Council of the European Union, as set out in a recently published directive on the promotion of the use of energy from renewable sources, also recognises the need for repowering existing onshore wind projects and the need for a streamlined and supportive consenting process.⁶

Unfortunately, we do not believe that the draft guidance is aligned with these aspirations. In particular, we disagree with the approach to the formal baseline for Environmental Impact Assessments (EIAs) and have set out our comments in detail overleaf. Moreover, given the very limited number of projects repowering or looking to do so in the near term (see figure 1 below), we consider it to be too early to attempt to produce a one-size-fits-all guidance for repowering, especially given the potential risks to the existing fleet this poses. Additionally, with new strategic planning guidance to be issued in the upcoming National Planning Framework (NPF4), issuing guidance at this point may potentially pre-empt these discussions by creating a significant material change in the balance of evidence in planning applications for wind farms.

Industry is not looking for new guidance at this time. We believe that there is sufficient existing guidance to enable repowering applications. Developers and consultants have already applied current EIA, Landscape and Visual Impact Assessment (LVIA) and other guidance in repowering applications and have found these to be suitable. We recognise that the time-limited nature of many project consents will be a material consideration in assessing repowering applications. However, we believe that this and related issues are best dealt with through the Planning Statement, rather than by designing bespoke guidance as currently proposed. We believe that a better approach would be to test existing guidance through further repowering applications and then make refinements if necessary. This would allow time for the Scottish Government, local authorities and other key stakeholders to work in conjunction with industry to create an appropriate planning policy framework for repowering.

Risks

Subjecting repowering applications to a 'without windfarm' baseline for environmental and landscape and visual impact assessments, as in the current draft guidance, will create a disproportionate impression of the effect of the proposal and could unnecessarily increase the planning risk, as well as the likelihood of expensive and time-consuming appeals. EIAs and LVIAs should not be barriers to growth, but rather improve the design of project proposals and provide decision-makers with sufficient information about the effects of implementing a project.

⁵https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/733637/National_Planning_Policy_Framework_web_accessible_version.pdf

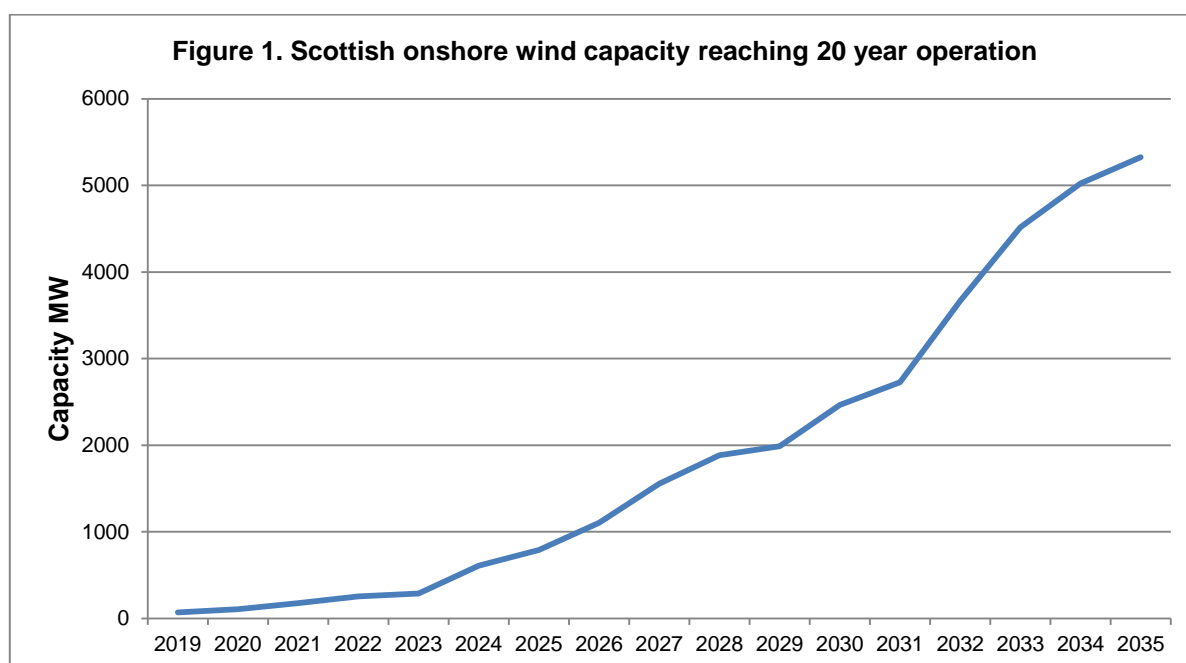
⁶ [http://www.europarl.europa.eu/RegData/commissions/itre/inag/2018/06-27/ITRE_AG\(2018\)625378_EN.pdf](http://www.europarl.europa.eu/RegData/commissions/itre/inag/2018/06-27/ITRE_AG(2018)625378_EN.pdf) The repowering pipeline

Landscape impacts have been the focus for most successful and unsuccessful challenges to proposed windfarms, with decision makers required to balance the demands of highly vocal local opposition and special interest groups, which generally represent a small minority of the local population, with the more diffuse interests of those who will gain through local, regional and national economic and environmental benefits.

This will be compounded by the fact that to remain competitive with other forms of energy generation in the UK, and to be able to use the latest hardware in international turbine markets, repowered wind farms will need to use fewer but taller turbines. Opening the planning application process up to further complications and potential challenge will exacerbate the more arduous planning process for projects in Scotland in comparison to other countries in Europe⁷. A stop-start approach, with significant legal delays and challenge, has impacted on the ability of the industry and supply chain in Scotland to develop in the past, and risks significantly eroding the generation capacity that has already been approved and built.

The repowering pipeline

To date only one wind farm in Scotland has applied to be repowered, and only a small number of projects can be expected to apply to extend their site use in the coming years. Figure 1 illustrates the cumulative volume of onshore wind capacity in Scotland that will be reaching 20 years of operation per year out to 2035. By 2030 (when the current 7.8GW of onshore wind generating capacity must increase to contribute to the target of 17GW of capacity from all renewable technologies), around 2.5 GW, or nearly one third of today's built capacity, will have reached decision points regarding life extension or repowering.



Source: UK Government, Renewable Energy Planning database, 2018

In the medium to long term a supportive planning and policy framework for repowering and life extension will be essential. In the near-term the analysis suggests that only a small volume of capacity will reach the age where repowering will become a consideration. Asset owners will likely consider extending the operational life of sites beyond 20 years before looking at repowering, so there is time for regulators and Government to establish an appropriate policy framework that strikes the right balance between encouraging development and managing impacts.

⁷ Everoze, 2016: Onshore Wind in Scotland: Opportunities for Reducing Costs and Enhancing Value: <https://www.scottishrenewables.com/publications/download/211/>

We have set out our response to the consultation questions below. If you have any questions on the comments set out in this response, please do not hesitate to get in touch.

Yours sincerely,

Stephanie Conesa

Policy Manager – Large-Scale Renewables

Consultation Questions

1. We advise that the formal baseline for EIA should be the expected restored state of the site, excluding the existing turbines. We set out our reasoning at Annex A of this draft guidance.

Do you agree with this approach? If not, why not?

Repowering a wind farm site involves the removal of wind turbines and their replacement with new turbines on the same or a similar site, potentially increasing overall generating capacity and output as well as potentially reducing the total number of turbines.

Based on discussions with our members, most developers will be submitting repowering applications while existing wind farms are still operating and have a few years left of consent. Therefore, using the restored site as the baseline, as recommended in the draft guidance, is inappropriate as (a) this ignores any impacts and likely significant effects associated with the decommissioning of the existing scheme and (b) this anticipated future baseline will not exist at the date of the assessment and will not exist if the consent is granted and implemented before the existing consent expires. Any assessment would therefore fail to identify likely significant effects. Further, any assumptions made about delivery of the restored site are unlikely to be robust.

Repowering differs from developing a greenfield site as the area has already been developed and, assuming repowering consent is granted, will continue to be used for the same activity. It is recognised that repowering proposals will extend the existing wind farm use of a site (assuming the wind farm being replaced is subject to a time limited consent or permission), and the full impacts and benefits of the repowering proposal will need to be properly assessed and taken into account in the repowering application decision.

However, the most effective and proportionate approach to assessing the impacts and benefits of a repowering proposal will not require an artificial 'no windfarm' EIA baseline to be calculated and compared against. The existing wind farm should provide an excellent evidence base for assessing the impacts of a repowering proposal. The baseline for any application should reflect the existing use. It is also important to ensure planning guidelines encourage consideration of the latest technologies with increased rotor diameter and hub height to increase the productivity of sites and reduce consumer costs.

As stated in the guidance, paragraph 174 of Scottish Planning Policy (SPP) sets out that "proposals to repower existing wind farms which are already in suitable sites where environmental and other impacts have been shown to be capable of mitigation can help to maintain or enhance installed capacity, underpinning renewable energy generation targets. The current use of the site as a wind farm will be a material consideration in any such proposals."⁸

SPP paragraph 170 states that "areas identified for wind farms should be suitable for use in perpetuity. Consents may be time-limited but wind farms should nevertheless be sited and designed to ensure impacts are minimised and to protect an acceptable level of amenity for adjacent communities."

In line with SPP, it is important that the default baseline against which all developments and receptors are assessed is the existing prevailing environmental condition at the time of application submission.

Both the Town and Country Planning Act and the Electricity Works EIA Regulations deal with baseline in the same way. The Regulations have secondary legislation status and must be complied with by developers, the decision maker (e.g. planning authorities or the Scottish Ministers) and consultees in exercising their statutory functions.

The EIA regulations require "a description of the relevant aspects of the current state of the environment ('the baseline scenario')," as well as "an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on

⁸ <https://beta.gov.scot/publications/scottish-planning-policy/documents/00453827.pdf?inline=true>

the basis of the availability of relevant information and scientific knowledge.”⁹ In the case of repowering, the current state of the environment (or baseline scenario) is most likely to be a site with an existing wind farm.

The EIA regulations only require an outline of the likely evolution of the current state of the environment, which would be a decommissioned site without a wind farm. This outline does not form the baseline scenario. To take the baseline for an EIA as a repowered site based on the hypothetical assumption of a restored site as set out in the SNH draft guidance, in our opinion, would be contrary to the EIA Regulations.

Environmental Statements should be streamlined and accessible tools for statutory consultees and the public, focusing on likely significant environmental effects. Including a hypothetical “without windfarm” baseline would only add to the volume and obscure the issues.

The guidance should therefore be revised, in line with SPP and EIA regulations, to support a ‘with wind farm’ scenario EIA baseline, recognising the site’s existing use as a wind farm.

2. We think it could also be helpful for decision-makers to see information comparing the full likely significant effects of the new proposal with the effects of the existing scheme. For example, we suggest that the application information should include a table comparing likely significant effects, a comparative Zone of Theoretical Visibility (ZTV), and comparative visualisations based on the ‘baseline panorama and wireline’ type format (see Section 2).

Do you agree with the proposed approach to comparing effects? Can you suggest a better alternative on how to present comparative visualisations?

We believe that the approach set out in the draft guidance is inconsistent and creates uncertainty, as it calls for the EIA baseline position to be a decommissioned site, while in the approach to LVIA operational turbines are a material consideration and should be included in comparative ZTVs and visualisations.

The experience of our members is that in recent years local councils have taken differing views on landscape and visual impact, including photomontage standards. The ambiguity in the current guidance could lead to certain council areas strictly imposing the ‘no turbines baseline’ while others may emphasise existing turbines as a material consideration, leaving assessors in a difficult position.

Existing guidance

We agree with SNH’s draft guidance stating that “developers should use current landscape and visual impact assessment guidance.” However, it also goes on to state that “the existing turbines should be digitally removed from the baseline panorama.” We would argue that to exclude the existing turbines from the LVIA baseline represents a fundamental departure from current landscape and visual impact assessment (LVIA) methodology. The current *Guidelines for Landscape and Visual Impact Assessment* (GLVIA3), the key reference document for Landscape and Visual Impact Assessment for all types of developments, clearly define baseline as the current situation. Therefore, excluding the existing wind farm for future LVIA for repowered wind farms would not be in accordance with GLVIA3. Any changes to current LVIA methodology would need to be ratified by the authors of the document, namely the Landscape Institute (LI) and the Institute of Environmental Management & Assessment (IEMA).

Additionally, under the EIA regulations the baseline scenario or “current state of the environment” for a repowering application will in the vast majority of cases be a site with an existing wind farm. Therefore, any assessment should be based on the likely significant effects of a repowering proposal on the current state of the environment. We therefore disagree with the proposed approach to comparing the likely significant effects of a repowering proposal with the significant effects of the existing scheme where those effects have both been assessed against a “no scheme” baseline. Further, if it is accepted by SNH that the current state of the environment is the appropriate baseline for the assessment of the repowering proposals, requiring applicants

⁹ http://www.legislation.gov.uk/ssi/2017/102/pdfs/ssi_20170102_en.pdf

to conduct two assessments (one for the existing scheme with no wind farm as a baseline and one for the repowered scheme with the existing wind farm as a baseline) is overly onerous and counter to the Scottish Government's ambitions to streamline the planning system and make it more proportionate. We therefore suggest that only one assessment should be required, with the current state of the environment (i.e. in most cases with the existing wind farm) as the baseline scenario, in line with the EIA regulations and GLVIA3.

In order to illustrate the evolution of the development, we would recommend that the following sequence of visualisation drawings accompany the LVIA:

- **Baseline (i.e. including the existing wind development)** at 90° HFOV, an additional figure not currently specified in the current SNH visualisation guidance
 - Photo of existing scenario (baseline for LVIA: including existing wind development)
 - Cumulative wireline of existing cumulative scenario (baseline for CLVIA: including existing wind development)
- **Baseline (i.e. including the existing development) and Proposal (i.e. including the proposed wind development)** at 90° HFOV, as per current SNH visualisation guidance
 - Photo of existing scenario (baseline for LVIA: including existing wind development)
 - Cumulative wireline of the proposed cumulative scenario (assessed scenario for CLVIA)
- **Proposal (i.e. including the proposed wind development)** at 53.5° HFOV, as per current SNH visualisation guidance
 - Wireline of the proposed scenario (assessed scenario for LVIA)
- **Proposal (i.e. including the proposed wind development)** at 53.5° HFOV, as per current SNH visualisation guidance
 - Photomontage of the proposed scenario (assessed scenario for LVIA)

The landscape and visual impact assessment would reflect the current baseline where the existing turbines are present. An outline of the evolution of the site with the existing turbines removed (i.e. to cover the "likely evolution" "do nothing" scenario) could be included in the Planning Statement. This would recognize that the decommissioned site is a material consideration, but is not the LVIA baseline.

We agree with SNH that a comparative ZTV (overlying the proposed site ZTV with the existing site ZTV) would be an important illustration to accompany the LVIA assessment, since the baseline should include the existing site. However, we disagree with SNH that a comparative wireline should be included (whereby the existing and proposed wind farms are overlaid in a wireline in different colours) since this would be misrepresentative and misleading of effects.

Cumulative landscape and visual comparisons with existing adjacent smaller scale turbines, with smaller rotor sizes, should not be determinative and restrict the drive towards use of the latest larger turbine technology, prohibiting progress and the economic viability of schemes since subsidies have been removed. As recognised in the Scottish Government's OWPS, "fewer but larger wind turbines may... present an opportunity for landscape improvement, as well as increasing the amount of electricity generated."¹⁰

Scottish Government position

SNH's proposed approach appears to run counter to the Scottish Government's current approach to repowering and the assessment of visual impacts. For example, as part of the LVIA work on one particular Section 36 application to repower a wind farm in Scotland (which is due to be submitted this year) the developer and consultants have had extensive discussions with the relevant local authority, the Energy Consents Unit (ECU) and SNH about the appropriate methodology for the LVIA for repowered sites.

¹⁰ <https://www.gov.scot/Resource/0052/00529536.pdf>

For this development, we understand that the view that the baseline for the assessment of a repowered wind farm site should be the current situation (i.e. including the operational turbines) was shared by both the council and ECU. In its Scoping Response to the proposed development, SNH requested that the baseline for the LVIA should assume that the turbines have been removed. However, the ECU disagreed with SNH's approach and stated clearly in its Scoping Opinion that "the baseline for the purpose of assessment should be the operational... wind farm" (i.e. including the existing operational turbines).

3. Because of the existing wind farm, standard bird surveys will give a skewed picture of the restored site's likely bird activity and the related impacts of the new proposal. This is largely due to displacement effects. We therefore advise that there should normally only be a new desk-based assessment drawing upon a range of information (see Section 3).

Do you agree with this approach? If not, why not?

We are concerned that the approach set out in the draft guidance will not provide a robust assessment. Furthermore, we are concerned that the guidance assumes that existing windfarms are causing displacement impacts on bird populations as a generalisation, when the evidence that displacement has occurred post-development remains limited.

Because wind farm sites are likely to differ widely in the data available, relevance of the data, and potential impact on target bird species, an ornithological scoping report should be produced to determine where significant effects are likely and the proposed approach to the assessment at the site. Some projects may not have the potential to cause significant effects, and as such a desk based assessment may be sufficient.

Regardless of the EIA baseline that is used, for projects where significant effects are likely, relevant contemporary ornithological data will be important in informing an impact assessment or Habitat Regulations Appraisal. It will be important to use any relevant historical data to focus any new surveys and assessment towards species for which significant effects are likely. The data from surveys can be used to carry out all necessary assessments and to inform any outline of the "do nothing" scenario.

The type and extent of survey data required to inform an assessment will vary widely between sites depending on the likely ornithological interests. For example, where historic data indicates a site is of lower sensitivity with target species (for which a likely significant effect is possible) only present during the breeding period, then new targeted surveys may only be required during the breeding season to understand the current status of these target species. Alternatively, where historic data indicate target species present at the site all year round (for which a likely significant effect is possible) then up to a full year of survey data may be required. As suggested above, there may also be potential (albeit rarer) scenarios where existing data indicate no likely significant effects and in these circumstances ornithology could feasibly be scoped out of an EIA.

Ultimately the approach to an assessment of repowering projects on birds would not differ from any other development project. The formal process of scoping, consultation and assessment would be followed with the required level of information gathered accordingly and, as required, based on receptor sensitivity and magnitude of impact.

4. We advise that new terrestrial species and bat surveys should typically be undertaken. New habitat survey is also likely to be required and new peat survey may be necessary to comply with the latest peat survey guidance. Developers should review the success of any implemented restoration/management associated with the original scheme, and look for opportunities to improve upon this.

Do you agree with this approach? If not, why not?

We understand that SNH will be publishing new guidelines on bats imminently. There is concern amongst our membership that these are likely to be more onerous and expensive than previous survey requirements. This will need to be taken into consideration in developing any new repowering guidelines.

We agree with the guidance stating that “if good post-construction monitoring data exists then new surveys may be unnecessary.” We suggest that the guidelines should allow for desk-based assessments for terrestrial ecology and bats where there is sufficient existing information to draw on. Detailed surveys should only be necessary where desk-based analysis indicates the potential for a likely significant effect.

Changes to peat survey methodology do not necessarily mean that new peat surveys will be necessary as, as stated in the draft guidance, “original peat survey information may still be relevant, i.e. where conditions haven’t changed.” Peat profiles will not have changed as a result of new guidance being developed. It is important to point out that these surveys are expensive and reassessment should only be undertaken in cases where this will result in a likely significant effect being identified that could not otherwise be identified with existing data. The onus should be on statutory consultees to justify the need for further surveys through the scoping process.