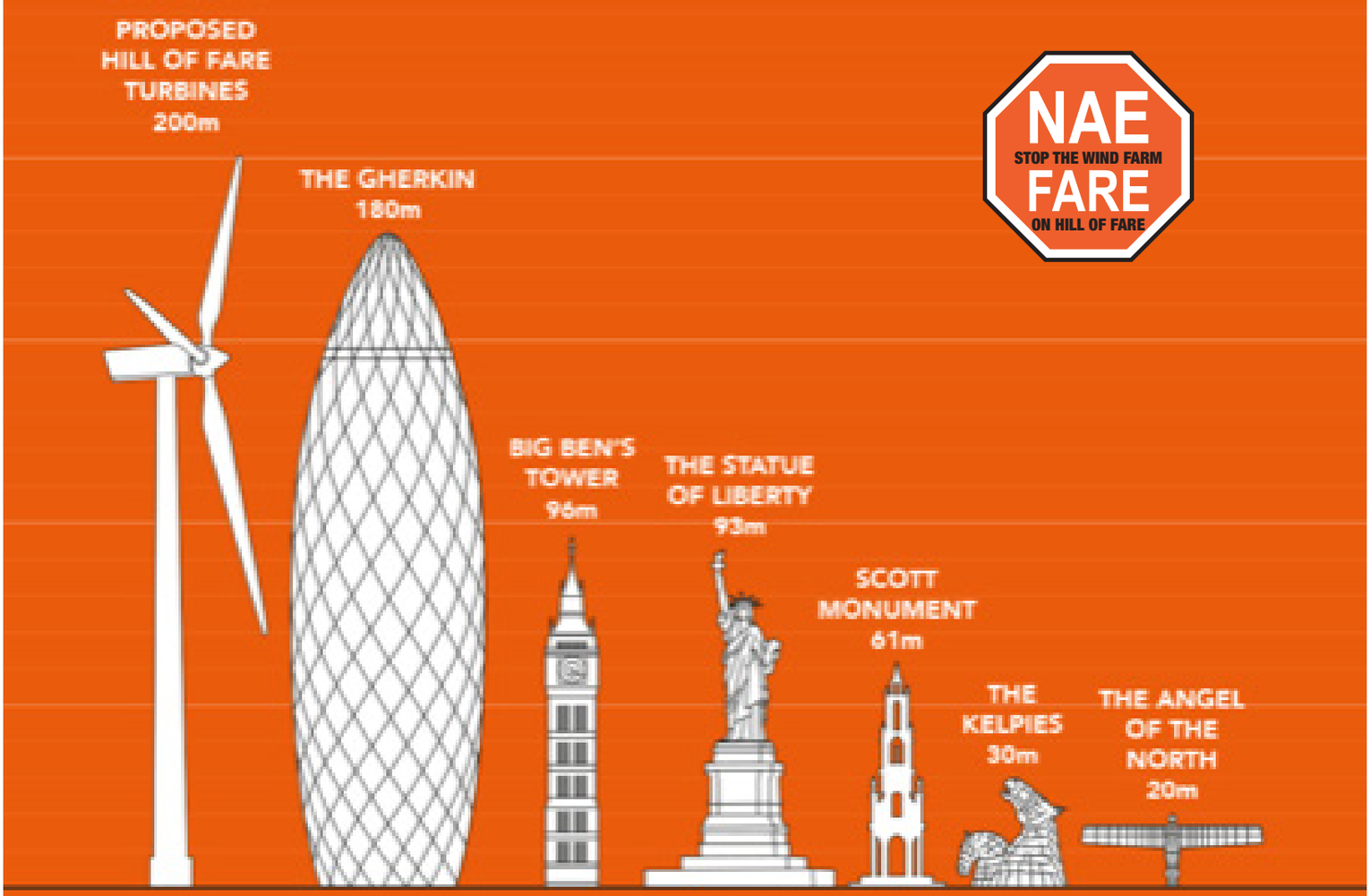
Hill of Fare Wind farm Information Group

(HOFWIG)

Objection Document

January 2024



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1. FOREWORD

The Hill of Fare Windfarm Information Group (HOFWIG) was formed in October 2022 in response to a submission by the windfarm developer RES and the Dunecht Estate to build a windfarm consisting of 18 turbines, each 250m tall, on the Hill of Fare Aberdeenshire [ECU00004592 and APP/2023/2196]. The group, which brings a wide range of professional expertise, consists of members of the local communities around the Hill of Fare, including Midmar, Torphins, Echt, Hirn and Banchory.

At each stage of the proposal, consultations, and the submission of the final application, the group has carried out research and analysis to fully understand the implications of the proposed windfarm and has informed local people of their findings through community engagement meetings, leaflets, and social media. The results of HOFWIG's research have led to an overwhelming majority (70-80%) of local residents, surveyed twice by the 6 Community Councils around the Hill of Fare, opposing the development for the following reasons:

- Negative Impact on the Appearance of the Area
- Departure from Policy and Guidance
- The lack of local democracy in the decision making
- Negative Impact on the Natural Environment
- Disruption and contamination of private water supplies
- The potential for radiological contamination
- Potential for other health and safety issues including noise; shedding of micro-plastics and light flicker
- There is no need for this development in this unique area as there are sufficient windfarms in operation and in planning in Scotland to more than meet the Scottish Government's targets
- The developer's own socio-economic analyses conclude that construction will result ***in temporary minor beneficial but not significant effects on the economy*** of Aberdeenshire and Scotland, and during the operational phase was assessed as ***negligible*** *and therefore* ***not significant.***

This document examines these issues, and a range of others, in detail against the Scottish Government's National Planning Framework 4 (https://www.gov.scot/publications/national-planning-framework-4/) and each chapter of the developer's Environmental Impact Assessment Report. (https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00004592).

We encourage planners and our elected representatives in Aberdeenshire Council and the Scottish Government's Energy Consents Unit to read this analysis and take it into account during the decision-making process.

Hill of Fare Windfarm Information Group

January 2024

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2. SUMMARY OF OBJECTIONS

Our objections are related to the **Aberdeenshire Council LDP23, Aberdeenshire Council Assessing Wind Energy Developments PA 2023-21, Landscape Sensitivity Assessment – Onshore Wind Energy Development in Aberdeenshire PA2023-03, Climate Change (Emissions Reduction Targets) (Scotland) 2019, Onshore Wind Policy Statement 2022, Onshore Wind Sector Deal 2023, the Draft Energy Strategy and Just Transition Plan 2023, and NPF4 Policies 1, 2, 3, 4, 5, 7, 11, 12, 13, 22, 23, 25, 29 and 33.**

Throughout this application we have noted that the developer has sought to scope out or minimise the impact of the effect this windfarm will have. In some cases, this is by omission, in others through flawed assumptions or methodology (see below for our objection headlines; these are expanded in the rest of this document).

The only **major and/or significant residual effects** that the developer acknowledges remain are related to Landscape and Visual Impact Assessment (LVIA) which are difficult to ignore (Environmental Impact Assessment Report (EIAR) Chapter 15, Table 15.2). These are summarised below Table 2.1:

Effect	**Residual effect**
During construction (2 years)	
Effects on Landscape Character Type (LCT)	Central part of LCT 22(i) Grampian Outlier
Visual effects	From elevated locations
During operations (50 years)	
LVIA viewpoints during daylight hours	16 of 22 viewpoints (chosen by the developer)
LVIA viewpoints during dark sky hours	11 of 22 viewpoints (chosen by the developer)
Effects on settlements during daylight hours	7 settlements
Effects on settlements during dark sky hours	7 settlements
Effects on users of core paths during daylight hours	5 core paths
Effects on users of core paths during dark sky hours	5 core paths
Effects on users of cycle routes during daylight hours	Midmar-Dunecht route
Effects on users of cycle routes during dark sky hours	Midmar-Dunecht route
Effects on users of roads during daylight hours	A980, B993, B9119, B977 (all routes)
Effects on users of roads during dark sky hours	extending to approx. 7km from the development
Effects on Dee Valley SLA	extending to approx. 7km from the development (this covers the whole valley)

Table 2.1 Summary major and/or significant residual effects

According to the Scottish Government (NPF4), decisions on windfarms need to take these significant impacts into account and balance them against the socio-economic benefits and the contribution to reaching Net Zero of this proposal, along with other potential issues.

The developer's own assessment is that the **socio-economic benefits** on the Aberdeenshire economy are:

- "**temporary, minor beneficial and not significant**" during the 2-year construction period
- "**negligible, and not significant**" during the 50-year operations period

We agree with this.

The developer RES has also stated there is no evidence that windfarms have a negative impact on tourism; the corollary is that **RES cannot show there would be *no* significant impact on tourism** or the numbers visiting Deeside in general. It must be recognised that there is an inherent risk that tourism will be affected, impacting the Hill of Fare, the Dee Valley and surrounding hills including Scolty, Bennachie, Correnie Moor, Pitfichie and Pressendye, which would no longer be the popular destination for recreation that they are at present. We note that Aberdeenshire PA 2023-21 advises that "*sites should be selected that minimise visual impact from tourist viewpoints, routes and facilities."*

Our own assessment of the developer's **carbon calculations** indicate that they are seriously flawed. They have miscalculated the carbon payback time due to incorrect assumptions of the grid mix over the lifetime of the windfarm.

We conclude that **this windfarm will never pay back the carbon emitted** due to construction, mainly because it is built on peatland.

The need for this windfarm has not been justified – based on latest Scottish Government figures, the 2030 onshore wind generation targets are well on track without any new onshore windfarms. Because the National Grid is not aligned to wind target aspirations in Scotland, it is not able to take any excess wind, leading to constraints payments and rising consumer utility bills.

Furthermore, **this windfarm will create unacceptable risk** to locals' wellbeing (private water supplies, noise, shadow flicker, access to nature) and will potentially negatively impact local ecology, ornithology, cultural heritage, and telecommunications.

Statutory consultees NATS and Aberdeen Airport have objected to the proposal. The mitigations proposed by the developer have not been identified or agreed yet.

We therefore strongly recommend that this windfarm development is refused permission.

We formally request to speak at any Aberdeenshire Council Area Committees, Infrastructure Committees and any Public Inquiry should one be organised.

Objection headlines

We have listed our objections to align with the RES Environmental Impact Assessment Report (EIAR) Chapter numbers as follows:

Community consultations:

- The developer RES's consultations were not inclusive, omitting key towns and villages. They were also leading, loaded in favour of the developer, and based on the assumption that the development would be approved.
- An independent questionnaire organised by six Community Councils around the Hill of Fare showed 75% against the proposal.
- The proposed community benefit is minimal given the high population around the Hill and is not guaranteed. This is not a Just Transition in any sense.
- The developer has not engaged with any Community Councils regarding a Community Benefit strategy.
- The landowner Dunecht Estate has failed to engage with the community.
- There is a significant imbalance in the planning process in favour of the developer and Government, with local democracy being largely absent.
- RES has published statements that can be misleading.

EIAR Chapter 5 – Policy and Planning Context:

- The need for this huge windfarm has not been justified. Latest figures for onshore wind energy production in Scotland show that 2030 targets are well on track without any new onshore windfarms.
- The National Grid's capacity is not aligned to the Scottish Government onshore wind target aspirations. It is not able to take excess wind production, leading to constraints payments to developers paid through users' utility bills. These payments, and consequently utility bills, are expected to increase significantly as more onshore windfarms are built.
- There is no evidence that this windfarm, which will contribute to the generation of far more onshore wind power than Scotland needs, will support the transition to low carbon energy or a low carbon economy in a cost-effective way.
- UK Energy strategy is a reserved matter, whilst planning policy is devolved, and this is causing confusion for decision makers. UK and Scottish energy strategies are misaligned.
- We call for a pause on onshore windfarm development in Scotland to take stock and to re-align UK-wide energy strategies.

EIAR Chapter 6 – Landscape and Visual Impact:

- The windfarm has a significant adverse and unacceptable landscape and visual impact because it is sited on a prominent ridge making it highly overbearing and visible. It therefore contravenes guidelines in multiple publications by Aberdeenshire Council and NatureScot.
- The Hill of Fare forms the northern boundary of the Dee Valley Special Landscape Area (SLA) which is a designated (and therefore protected) landscape area in the Aberdeenshire Local Development Plan 2023 (LDP 2023). Whilst the wind farm would be located outside the boundary of the SLA it would still dominate the SLA and therefore impact the sense of place and the views and vistas along the valley.

- In terms of economic benefit, the developer has assessed this as "not significant" and "minor". Furthermore, there is a significant risk that tourism, an important part of the local economy, will be adversely affected. This is dismissed by the developer.
- In terms of social benefit, the windfarm on the Hill of Fare would have a negative effect on mental or physical wellbeing from a loss of nature, as well as the loss of recreational opportunities, which would be detrimental, not beneficial.
- In terms of environmental impact, this is also detrimental as discussed separately in this document.
- The residential amenity, visual impact, and shadow flicker have not been adequately addressed because the area for residential visual amenity assessment (RVAA) has been limited to a 2km radius which is too small for the scale, location, and prominence of this development.
- The landscape and visual impacts of the proposed development are significant over large areas. They cannot therefore be considered localised.
- The mitigations applied are wholly inadequate - it is impossible to mitigate the landscape and visual impacts of large turbines placed on a prominent ridge in a heavily populated area in contravention of national and local wind farm placement guidelines.
- The landscape and visual impacts are very significant and have not been, and cannot be, effectively mitigated, so the impact on public access, walking and cycling routes, and scenic routes are also very significant, and plainly adverse.
- In any event the developer's assessment counts so-called 'mitigation' as a benefit, thus introducing double counting to the assessment.
- The final paragraph of Chapter 6 Landscape and Visual Impact Assessment in the RES's EIAR states that: "*There are no definitive quantifiable thresholds of acceptability in landscape and visual impact assessment. The identified effects on landscape character and visual amenity therefore need to be balanced against the other benefits of the Proposed Development in the overall planning balance".* The EIAR consistently downplays the magnitude of the landscape and visual impacts by asserting that they are either localised or "to-be-expected" for an onshore wind development. There is no recognition that the landscape and visual impacts (LVIs) would be far, far greater than comparable wind farms in the area, and therefore would require 'other benefits' to be significantly greater than they are to counterbalance the adverse impacts in the overall planning balance.

EIAR Chapter 7 - Cultural Heritage Methodology:

- The methodology used is flawed leading to dilution and omission of impact.
- Specific sites requested by HES to be assessed have not been adequately evaluated, and others have been under-represented.
- The cumulative assessment of other windfarms is incorrect.
- No attempt has been made to take into account any new archaeological discoveries that may be made (e.g., on the Battle of Corrichie site).

EIAR Chapter 8 – Ecology Assessment:

- The assessment and management plans that the developer has produced do not give confidence that they will conserve, restore, and enhance biodiversity on the site.
- There are some important omissions in the EIAR Ecology Assessment which indicate that the existing characteristics of the site are not understood adequately, including a complete

absence of wildcat and invertebrate surveys, and investigations of potential invertebrate habitats (pond and bog pools). Explanations are needed as to why these were not carried out.

- Map overlays with proposed site infrastructure are missing. Such overlays are standard practice in Environmental Impact Assessments (EIA) and were requested by NatureScot in their response to the project Scoping Report. The absence of overlays makes verification of predicted impacts on habitats difficult. Amended maps should be issued.
- The EIA ecological report contains misidentifications and errors. Several of the National Vegetation Classification (NVC) plant communities in the survey appear to be misidentified (being normally found only in the south of the UK), including M21 mire and all H9 dry heath. This suggests that the surveyor used was either inexperienced, or England based and not familiar with Scottish upland ecology
- The spatial scale of the site values should be re-examined – the size difference between 'Local' (sites of value within 2km of the site) and 'Regional' sites (sites of value within Aberdeenshire) is too great and leads to undervaluation of some species and habitats.
- In view of the need to reassess several species and habitat valuations, there is a likelihood that some significance of effects are assessed as too low, and reassessment of respective impacts therefore needs to be undertaken. This includes otter and pine marten, M4 mire and associated bog pools, and M19 blanket mire.
- The Outline Biodiversity Enhancement and Management Plan (OBEMP) does not provide enough detail to allow prediction with a high degree of confidence that residual beneficial effects will result. This is particularly the case for proposed blanket bog, dry heath and deer management, for which proposed measures are very generic and not based on identified conditions on the ground or on discussions with the landowners/ managers as to what is possible or acceptable to them. Nor is there any identification of who is to carry out the work, some of which proposed is quite specialist.
- No information on monitoring is provided in the OBEMP, which is a major omission. The success of the proposed management will depend to a large degree on sufficient monitoring.
- The EIA ecological report contains numerous textual errors, further reducing confidence.

EIAR Chapter 10 – Hydrology, Geology & Hydrogeological Assessment:

- There is a risk that private water supplies, relied on by about 150 homes, businesses, and farms (200-300 people) will be impacted by activities related to this development, in particular:
    - long term reliability of water flow may be damaged due to construction activity including blasting
    - pollution of water due to disturbed soils and muds, radon from Uranium in the Hill and shedding of Bisphenol A from turbine blades
- The developer does not appear to have considered the presence of radioactivity in the granite on the Hill of Fare, nor have they carried out radiological impact assessments to determine the extent to which the development could have a detrimental impact on the health of local residents and contractors involved in the work.
- No assessment has been made of the risk of pollution of private water supplies by microplastics during the long lifetime of this windfarm, and that assessments of other possible sources of pollution are inadequate.
- The risk of flooding has not been assessed.
- The risk to residents' health due to pollution of private water supplies has not been addressed.

EIAR Chapter 11 – Traffic:

- The routing assessment takes no consideration of the community effects, is unrealistic in its duration and does not offer any mitigation as a result of community consultation.
- RES claims an operational life for the development of 50 years though the usual lifespan of turbines is a maximum of 25 years. At some point therefore, the whole process will not only have to repeated but the road network will also have to cope with the removal of the currently proposed turbines. This only increases the impact on the area.
- The route chosen conflicts with the listed building the Manse of Echt and no mitigation is presented for that conflict

EIAR Chapter 12 – Acoustic Assessment:

- The impact of noise (especially amplitude modulation (AM)) has not been adequately assessed, using guidance that is discredited, out of date, and based on turbines that were significantly smaller. The impact of noise is likely to be excessive, adverse, and seriously disturbing.
- The proposed planning condition is inequitable.

EIAR Chapter 13 – Socio-economic:

- There is no evidence to support significant economic benefit in RES' own analysis or elsewhere in the public, business, or academic sectors. In the absence of any significant economic benefit to outweigh the significant impact of this windfarm, the application must be rejected.
- Evidence from a freedom of information request in Nov-2023 shows that, in 2022-2023, the Scottish Government received £13,297,204 in rental income from wind farms and single turbines. This amounts to £2.44 per person and shows that this source of income from onshore wind is insignificant on a local and a national scale.
- RES claims that the proposed development *could* create a £150m boost to the local economy. The figures are estimates over 50 years, and RES cannot demonstrate where the funds would be spent, with their own conclusion being that there would be 'not significant' or 'negligible' economic benefits to Aberdeenshire and Scotland.
- The RES Transport Plan for turbines and construction traffic will undoubtedly cause major disruption to traffic with a knock-on impact to local businesses. It is also unclear to those with local knowledge how the proposed route will accommodate the large transport vehicles required to move the turbines and blades, without significant changes to the road infrastructure. None of this can be justified in the absence of significant local economic benefits.
- The proposed community benefit is minimal given the high population around the Hill and is not guaranteed.
- There is no evidence that the developer has consulted with any individuals or communities on the Local Electricity Discount Scheme (LEDS) or any other community benefit referred to in section 13.10.
- In terms of rural development and the natural economy, the RES proposed development produces no evidence of long-term, sustainable impacts on the local rural economy.
- The development would overshadow the important tourist routes on the A93, B977, and B9119, the main routes from Aberdeen to Royal Deeside and beyond, with potential for shadow flicker and stroboscopic effects along the routes.

- The developer's own literature review suggests there is no evidence that a wind farm on this scale would have **no impact** on tourism or the numbers visiting Royal Deeside and the area surrounding the Hill of Fare. There is an inherent risk to the tourism sector in this area that must be recognized, analysed, and mitigated, not least of which is that the Hill of Fare, Dee Valley and surrounding hills would no longer be the popular destination for different kinds of recreation that they currently are.

EIAR Chapter 14 – Aviation:

- Key consultees (NATS and Aberdeen Airport) have objected to the proposal. The mitigations proposed by the developer have not yet been identified or agreed.
- Aviation lighting is required on several turbines which the developer has assessed will have a 'significant effect' on the night-time sky, removing the special dark sky visible around many parts of the Hill.

EIAR Chapter 14 - Carbon calculation:

- The assumptions for the carbon payback calculation are incorrect. Using the latest Government data on the fuel mix, and assuming the carbon emission figures calculated by the developer (which we believe to be too low) the development does not pay back the carbon deficit. Overall, it increases carbon emissions and therefore does not contribute to getting to Net Zero.
- Based on discussions with an expert in the field and a literature survey we conclude that windfarms that involve destroying peat should never be built.
- There may be some incorrect assumptions which may increase the carbon emissions due to construction of this windfarm and the ancillary installations.

EIAR Chapter 14 – Shadow Flicker:

- The impact of shadow flicker is likely to be much more significant than assessed by RES with potentially over 300 homes affected
- The mitigations proposed are not realistic.

EIAR Chapter 14 – Television, Telecommunications and Microwave Fixed Links:

- The developer has not assessed the effects of the windfarm on television and telecommunications, despite academic papers clearly stating that windfarms do affect digital television and telecommunications, and the recent Glen Dye windfarm's approval had a condition attached related to this potential impact.
- There is no evidence for the developer's statement that there will no 'significant degradation' in microwave links located on and around the Hill with no evidence for this.
- There is no clarity on mitigations or compensations should problems arise.

Other items not included – Health and Safety

- The developer has underestimated or not assessed the risks related to:
    - Blade failure
    - Ice throw
    - Surface erosion of wind turbine blades, which shed microplastics, including the toxic compound Bisphenol A
    - Release of radon gas from Uranium rocks on the Hill of Fare and potential to pollute private water supplies

    - The health and safety of construction workers involved in the blasting, crushing and use of the uranium ores contained within the Hill of Fare rocks
    - Fire risks and mitigation of the battery installation
- The developer has sought to scope out most of these issues. In the event that an incident does occur, however unlikely, it is important that there is clarity and confidence that this will be dealt with and managed properly. It is best practice to describe the approach that will be taken. This is entirely absent in the application documentation.
- It is also not clear how the developer will manage Health and Safety on the work site during construction.

Other items not included – Minerals

- The developer has not
    - Considered the presence of radioactivity in the granite on the Hill of Fare.
    - Carried out radiological impact assessments to determine the extent to which the development could have a detrimental impact on the health of local residents, and contractors involved in the work
    - Provided any mitigation plans for any adverse impacts

Other items not included – Waste

- A major component of the development cannot be reused or recycled. Wind turbine blades are made of fibre glass, which is non-biodegradable and made up of a composite of very fine strands of plastic and glass which is extremely difficult to process at the point of recycling. They are usually discarded as waste at landfills or incinerated.

3. OBJECTION TO COMMUNITY CONSULTATION

Our objections to community consultation are related to a lack of fair and inclusive community engagement in line with **Aberdeenshire Council LDP23, the Energy Strategy and Just Transition Plan, and NPF4**.

In addition, the **Onshore Wind Sector Deal** states: '*Onshore wind in Scotland will continue to collaborate with local communities, building on good practices to enhance its existing 'good neighbour 'approach through engagement at all stages of the project life cycle, offering impactful community benefits and practical routes to shared ownership*.'

Summary

We object to the proposal on the basis that:

- The developer RES consultations were not inclusive, omitting key towns and villages. They were also leading, loaded in favour of the developer, and based on the assumption that the development would be approved.
- An independent questionnaire organised by six Community Councils around the Hill of Fare showed 75% against the proposal.
- The proposed community benefit is minimal given the high population around the Hill and is not guaranteed. This is not a Just Transition in any sense.
- The developer has not engaged with any Community Councils regarding a Community Benefit strategy.
- The landowner Dunecht Estate has failed to engage with the community.
- There is a significant imbalance in the planning process in favour of the developer and Government, with local democracy being largely absent.
- RES has published misleading statements in the press and elsewhere.

RES consultations

The public notification of the pre-application proposal was not published in any local newspapers or other publications in the area around the Hill of Fare and local residents only became aware of it through word of mouth.

Subsequently, RES arranged two consultation presentations to communities and residents around the Hill of Fare.

The first presentations, in October 2022, were at Crathes, Torphins, Midmar and Echt, but excluded Banchory, which represented approximately 75% of the resident population. Banchory was included at the June 2023 presentations, but Crathes, whose Community Council area covers most of the windfarm, was excluded.

We object on the basis that the RES consultations were not inclusive to all communities affected.

RES conducted surveys at both presentations gauging the views of visitors.

The first survey in October 2022 was conducted on an uninformed audience who could give their responses immediately or had four further weeks to complete the online version of the survey. Questions in this survey were framed to give RES feedback on their ability to present their case and without informing visitors as to what the alternatives to the Hill of Fare windfarm could be. There were implications that this development would reduce energy bills,

increase energy security and the feedback from visitors would help improve the design and application process.

Their questionnaires were based on the premise that the development was happening and just asked how it could be improved. It was limited to mitigation of issues but did not allow communities to object to the development in the first place. They included a multiple-choice question on the comments form that asked if the wind farm went ahead as currently designed (scoping layout), what people thought about the turbine and infrastructure layout. RES's Pre-Application Consultation (PAC) report for the 2022 exhibitions states:

- *71% responded that they had concerns about the proposed layout*
- *8% responded that they didn't like wind farms in general*
- *8% responded that they were neutral to the proposed layout*
- *8% responded that they were happy with the proposed layout*
- *5% didn't answer the question*

The second survey in June 2023 framed the questions in such a way that only gathered feedback to RES's changes in their development design. The PAC report on this consultation stated that "*61% responded that they had concerns about the proposed layout*".

Their consultation reporting, although entirely predictable, fails to document the strength of local objection to material issues. RES's conclusion in their PAC report (7.1.1) is misleading: "*In accordance with best practice, the Applicant has fulfilled and exceeded the minimum preapplication consultation activity expected for this Proposed Development, including documenting and reporting on the consultation activities undertaken*".

We object on the basis that the consultation questionnaires were leading, loaded in favour of the developer, and based on an assumption that the application would be approved.

On 19th January 2024, two climate activists turned up on Banchory High Street asking people to sign a document in favour of the windfarm. We have heard several complaints about this, including that some people were confused by their request, thinking they were confirming their objection to the development. The activists, who had travelled from Nottingham and Wales, said that they had been paid to be there by RES. When asked, they admitted that they did not know where the Hill of Fare was and had not read the application.

Community Council consultations

The six Community Councils (CC) located around the Hill of Fare also produced a questionnaire to independently assess the communities' views about the development. In agreement with RES, the questionnaire was made available at the public exhibitions in October 2022 and again in June 2023.

The CCs' questionnaires included the question "How do you feel about the proposed wind farm?" with options 'Object', 'Neutral', 'Undecided' and 'In favour'. The percentages of respondents 'Objecting' to the development in the CC questionnaires was 71% and 75% respectively for 2022 and 2023, which aligns with the RES numbers above (see Table 3.1 below). We conclude that those having "concerns about the proposed layout" in the RES survey are mostly objectors who would have made that clear to RES were they given a more open question.

In total, of 863 completed CC questionnaires were received, with some 258 people completing the questionnaires on both occasions. The community response to the 2022 exhibitions showed 71% objecting to the development with 11% in favour, the remainder being either undecided or neutral.

Despite RES attempting to address community concerns expressed in the first round of exhibitions, the community response in June 2023 showed an increase in those objecting to 75%. In addition, those that completed the questionnaire twice recorded a significant increase in their strength of objection. Comments suggest this was due to a greater awareness of the impact and issues associated with the development. The more people learnt about the development, the greater their objection.

Hill of Fare Windfarm COMMUNITY COUNCILS QUESTIONNAIRE – OCTOBER 2022 RESULTS				
Community Council Area	**Object**	**Undecided**	**Neutral**	**In Favour**
Banchory	76%	8%	6%	10%
Cluny Midmar Monymusk	79%	13%	4%	4%
Crathes Drumoak Durris	76%	15%	4%	6%
Echt & Skene	52%	24%	6%	18%
Inchmarlo Brathens Glassel	55%	24%	6%	18%
Torphins	72%	5%	9%	14%
Other	69%	18%	4%	9%
ALL	**71%**	**12%**	**6%**	**11%**

Hill of Fare Windfarm COMMUNITY COUNCILS QUESTIONNAIRE – JUNE 2023 RESULTS				
Community Council Area	**Object**	**Undecided**	**Neutral**	**In Favour**
Banchory	77%	6%	6%	11%
Cluny Midmar Monymusk	78%	9%	2%	10%
Crathes Drumoak Durris	81%	11%	8%	0%
Echt & Skene	76%	0%	18%	6%
Inchmarlo Brathens Glassel	67%	7%	7%	20%
Torphins	75%	7%	5%	12%
Other	68%	7%	5%	20%
ALL	**75%**	**7%**	**7%**	**11%**

Table 3.1: Results of Community Council questionnaires Oct 2022 & June 2023

Analysis of the data received from the communities shows that although there are some 30-40 identifiable issues recorded, the most common were:

1. Visual impact/ Inappropriate size
2. Impact on wider landscape and rural communities
3. Noise
4. Disturbance to peace, tranquillity, beauty, character of landscape
5. Environmental impact

6. Effect on private water supplies
7. Inadequate financial gain to the communities impacted

In general, while people understand and support the need for renewable energy, it is felt that the prominence of the site, the size and scale of the proposal, the large, affected population and the impact on tourism outweigh the benefits of the scheme.

For the large numbers of people living closest to the Hill of Fare, there are additional concerns regarding the long-term impact of noise, shadow flicker, night-time illumination, disruption to and/or contamination of private water supplies, and blighting of properties, for which mitigation measures are uncertain and therefore unacceptable. The location also contains an area of Class 1 peat which is an important carbon store, and it is thought unlikely that the developer will be able to mitigate the loss of biodiversity over such a large area.

A survey run by the local MP also showed a high level of concern about this development.

We object based on significant local opposition.

Community Benefit

The Scottish Government Policies published in the last two years (Onshore Wind Sector Deal and Onshore Wind Policy Statement 2022) make it clear that stronger community support for wind farms depend on better cooperation between communities and the developer and should include a Community Benefit offering as part of the Just Transition.

Apart from the standard £5,000/MWh/year offering, the developer has not participated in activities/discussions to develop a Community Benefit strategy. It is felt that the standard £5,000/MWh/year Community Benefit is derisory in an area of high population – it amounts to around £45/person/year. Furthermore, in the FAQ's listed in RES's May 2023 Newsletter, they state that "the provision of any community benefit by the developer is entirely voluntary", giving no certainty that this will happen.

Just transition is nowhere in sight. This alone is reason enough to object to this development.

Landowner consultation

It is to be expected that the landowner would engage with the community, however, in this case the landowner, George Pearson of the Dunecht Estate, presented an attitude of disinterest in any community concerns. He gave the impression and stated that this is a way for "his land to earn its living". He also stated that he would not tolerate such a development near his own home. In a meeting with Mr Pearson, local residents encouraged him to proactively engage and work in partnership with local communities to explore sustainable renewable energy projects that would benefit his business and the communities impacted. He would not engage with this.

We object on the basis that the landowner has made no effort to enhance "good neighbour" relations, indeed his actions have instead resulted in significant relationship deterioration.

Local democracy

As the installed capacity of the proposed development is over 50 MW, it requires consent from the Scottish Ministers under the Electricity Act 1989, enabled through the Energy Consents Unit (ECU). This means that the local Planning Authority (Aberdeenshire Council) is a statutory consultee and not a decision maker. Aberdeenshire Council has declined to accept comments from the public; we believe that this effectively deprives local residents and communities of their local democratic rights.

Depending on the process and delegation mechanism chosen by the local Planning Authority, there is a high risk that local communities have very little input or say on the decision of a

development that will significantly impact their lives and environment. Whilst the elements for decision making are clear (e.g., NPF4) there is potential for considerable interpretation of 'impact' and 'balance' that underpin the final decision, and a mismatch in the relative weighting given to Local Development Plans, developed, and agreed with local knowledge and NPF4, as an overarching national policy.

There is significant imbalance in the whole process. The developer has worked for over two years to prepare the proposal, using a paid workforce of many experts. The application document comprises several volumes of complex technical information and is available in hard copy form in only two locations, one of which is not impacted by the proposed development. This is despite Community Councils requesting that copies be made available, free of charge, at community locations such as schools and village halls. In response, the developer requested £1,500 for each additional copy. The community has been given 4-6 weeks to analyse, comment and give input, using a small group of unpaid volunteers, who in the main are not experts in the required disciplines. They are, however, experts in the local area, what it's like to live here, what will work, what won't and the potential impact of the proposed development. The consultation period fell over the Christmas and Hogmanay holiday period, further disadvantaging the community.

The sense is that the only way to influence the Planning Authority, the ECU, and Scottish Ministers, is to engage the community widely raising awareness and motivating action to raise objections. This takes considerable time and effort. Even then we are not confident that we will be heard and can only conclude that local democracy does not count locally in Aberdeenshire, and nationally in Scotland.

RES publicity is misleading

RES has published statements that can be misleading, which we counter as follows:

RES Statement	HOFWIG says
The Hill of Fare is in an area identified by Aberdeenshire Council as having 'potential for windfarm development'	Aberdeenshire Council has specified that the Hill of Fare has no underlying capacity for wind turbine development above 15m in height. The 180-200m tall turbines proposed are not appropriate.
Would generate clean, low-cost renewable electricity for around 101,000 homes each year	This windfarm will not power homes in Scotland. When the wind blows, Scotland is already self-sufficient in wind power and is on track to meet the 2030 onshore wind targets. The National Grid still needs to build major exports route south to transport excess wind energy generated in Scotland. Turbines have to be shut in on windy days raising constraints payments which have already cost the country £1 billion in wasted money last year. Although one of the largest battery installations in Europe, we estimate that the Hill of Fare BESS will supply 100,000 homes for around 2 hours.
Capable of reducing the equivalent of 69,000 tonnes of carbon emissions each year	Peat removal, tree felling, and concrete create a significant carbon deficit. Due to the low carbon displaced from the grid over most of its life, the windfarm will barely pay back the carbon emitted in building it and will provide a minimal long term carbon reduction.

Carbon payback is 2.8 years	
Hill of Fare could create a £150 million boost for the local economy	These figures are spread over 50 years, and annually are not significant. The £50 million Business Rates quoted (over 50 years) will not go directly to Aberdeenshire Council; they will be put into a national pot to be distributed to local authorities across Scotland. Aberdeenshire Council's annual budget is >£700 million, and this is insignificant. Some jobs during the 2-year construction period will be local, but many will be specialist equipment and operators from elsewhere. There will be very few jobs during the 48-year operational period.
Package of benefits for the community worth £26.4 million to the local area;	This figure is over 50 years and corresponds to the minimum recommended or £528,000/year. With the high population around the Hill this corresponds to ca. £45/person/year.
This could include RES' unique Local Electricity Discount Scheme (LEDS) which offers an annual discount to the electricity bills of those properties closest to a participating windfarm	No details of LEDS have been given and no guarantees. Any electricity discount may come out of the community benefit package leaving less for the rest of the community.

Table 3.2: Countering RES statements that may be misleading

Summary community consultation

No events, not the recent storms, not even Covid, have managed to bring our Community Councils together quite like this planning application. It is clear that the proposed development does not have the support of local communities.

The conclusion is that rural communities are expected to tolerate large industrial-scale infrastructure projects, including this development and national grid upgrades, passing through our communities for the benefit of others who don't live here and may, in all likelihood, not even live in Scotland at all. The natural beauty and biodiversity of the area are destroyed for good, while at the same time we live in an area of the country where new housing developments are still being built with non-renewable heating systems because the local grid has insufficient capacity to provide for heat pumps.

Fury is growing across many rural communities in Scotland as our voices and concerns are ignored.

The Meikle Carewe and Mid Hill windfarms to the immediate south of the area give our communities direct experience of other windfarm developments. The community reaction to the Hill of Fare application is an order of magnitude more intense than that of the two neighbouring developments, which are much less prominent and were considered appropriate. They are also older and smaller.

There is a palpable anger within our communities that a proposal of such significance has been visited on us by Dunecht Estate, a long established and significant element within our

communities. It is disappointing that the owners of Dunecht Estate lacked the courage to stand up in front of the communities to discuss their plans, rather than delegating this task to a third party, RES, who have failed to do so effectively and with consideration, empathy or understanding. Had they done so, they would have understood the strength of feeling and the thoroughly inappropriate nature of the development.

Our local communities object to this application in the strongest possible terms and there is evidence to support this.

4. OBJECTION TO RES EIAR CHAPTER 5 – POLICY AND PLANNING CONTEXT

Objections to 'EIAR Chapter 5 – Policy and Planning' are related to the **Draft Energy Strategy and Just Transition Plan (2023)** and the **Climate Change (Emissions Reduction Targets) (Scotland), 2019**.

Summary

We object to the proposal on the basis that:

- The need for this huge windfarm has not been justified. Latest figures for onshore wind energy production in Scotland show that 2030 targets are well on track without any new onshore windfarms.
- The National Grid's capacity is not aligned to the Scottish Government onshore wind target aspirations. It is not able to take excess wind production, leading to constraints payments to developers paid through users' utility bills. These payments, and consequently utility bills, are expected to increase significantly as more onshore windfarms are built.
- There is no evidence that this windfarm, which will contribute to the generation of far more onshore wind power than Scotland needs, will support the transition to low carbon energy or a low carbon economy in a cost-effective way.
- UK Energy strategy is a reserved matter, whilst planning policy is devolved, and this is causing confusion for decision makers. UK and Scottish energy strategies are misaligned.
- We call for a pause on onshore windfarm development in Scotland to take stock and to re-align UK-wide energy strategies.

2030 targets and current status

Whilst we all agree that there is an urgent need to tackle the climate and nature crises, any energy strategy and transition plan must spell out the need for various forms of energy and storage, how they will work together and a plan to achieve this by 2045, with key milestones along the way (e.g., 2030). The Draft Energy Strategy and Just Transition Plan, published in January 2023, fails to provide an integrated strategy and clear plan but rather provides a series of aspirational targets that are not joined up. Crucially, the strategy and plan are not integrated with the energy system and requirements in the rest of the UK, despite the fact that the National Grid is UK-wide.

Currently:

- Scotland has a capacity of 8.8 GW onshore wind capacity and 1.8 GW offshore, giving a total capacity of 10.6 GW.
- Demand is 3-4 GW.
- Capacity is some 2-3 times Scotland's requirements. When the wind blows, Scotland is self-sufficient in power, and excess wind is exported to England.

The Energy Strategy and Just transition Plan states that in 2030:

- Scotland's capacity targets are to increase by 12 GW for onshore wind (total ca. 20 GW), and 6-9 GW for offshore wind (total 8-11 GW), giving a total capacity of ca. 30 GW.
- 'Illustrative' future demand in Scotland is predicted to rise to 10 GW by 2030, assuming every household has an electric vehicle, and a million houses have heat pumps (currently there are 170,000 installed domestic heat pumps in Scotland).

- Capacity remains 2-3 times Scotland's requirements, with the excess to be exported, if the market is there and the grid can take it.

Latest figures for wind energy production in Scotland (see Table 4.1 below) show that the onshore 2030 targets are well on track **without any new onshore wind farms.**

Scotland's Wind Power		
(All data in GW as of Sept 2023)	**Onshore**	**Offshore**
Operational	9.4	2.6
Under/Awaiting Construction + Planning	12.7	8.3
TOTAL	**22.1**	**10.9**
2030 Target	**20**	**8-11**

Table 4.1: Scotland's wind power (all data from gov.scot Scottish Energy Statistics Hub)

It's becoming increasingly obvious that Scottish and UK wind policies are disconnected, and that is a problem. Scotland's wind capacity targets are ca. 20 GW onshore and 10 GW offshore, whilst the rest of the UK has no onshore target, and a target for 50 GW offshore, all by 2030. The rest of UK's focus is offshore, with treaties having been signed with EU countries, and giant wind farms already being built e.g., SSE Dogger Bank, whilst Scotland's focus in onshore, with 30 GW of offshore bids largely sitting on the shelf.

Scottish wind has helped good progress by decarbonising the UK grid, but if both sets of wind targets are realised, a wind power glut looms. UK demand fell in 2020; modest rise is expected by 2030, dictated by slow uptake of heat pumps and EV; hydrogen and energy storage won't take up any excess.

The network operator, NGESO, plans to expand onshore networks and transfers but capacities do not reflect Scotland's exports, and will lead to significant bottlenecking and windfarm curtailment. This misalignment does not make sense and will cost all UK citizens dear. Network upgrades are lagging, the scale needed is monumental and won't happen quickly.

Meanwhile Ministers are approving new onshore windfarms in Scotland that are not even needed yet, underpinned by curtailment payments for onshore windfarms, and overriding environmental and community objections.

We strongly object to this proposal on the basis that the need has not been justified.

Constraints payments

The Scottish Government asserts that excess capacity, via exports to England and Europe and the future hydrogen economy, is beneficial, but gives no evidence in support. There are known major bottlenecks in network infrastructure into England and through Scotland. England is also rapidly expanding wind capacity, and there is no evidence that in 2030 and beyond, England can take and pay for the huge excess quantities implied by the Scottish wind targets.

As wind capacity increases, it is known that curtailment payments, necessary to secure investment by developers when wind farms must be shut down, will increase. Consumers will pay for excess capacity beyond what is needed in higher utility bills, causing economic harm. Constraint payments to date are already estimated to amount to ca. £1.2 billion in UK, the bulk of which (88%) arise in Scotland (see Figure 4.1 below):

https://www.sciencedirect.com/science/article/pii/S1364032118300091?via%3Dihub.

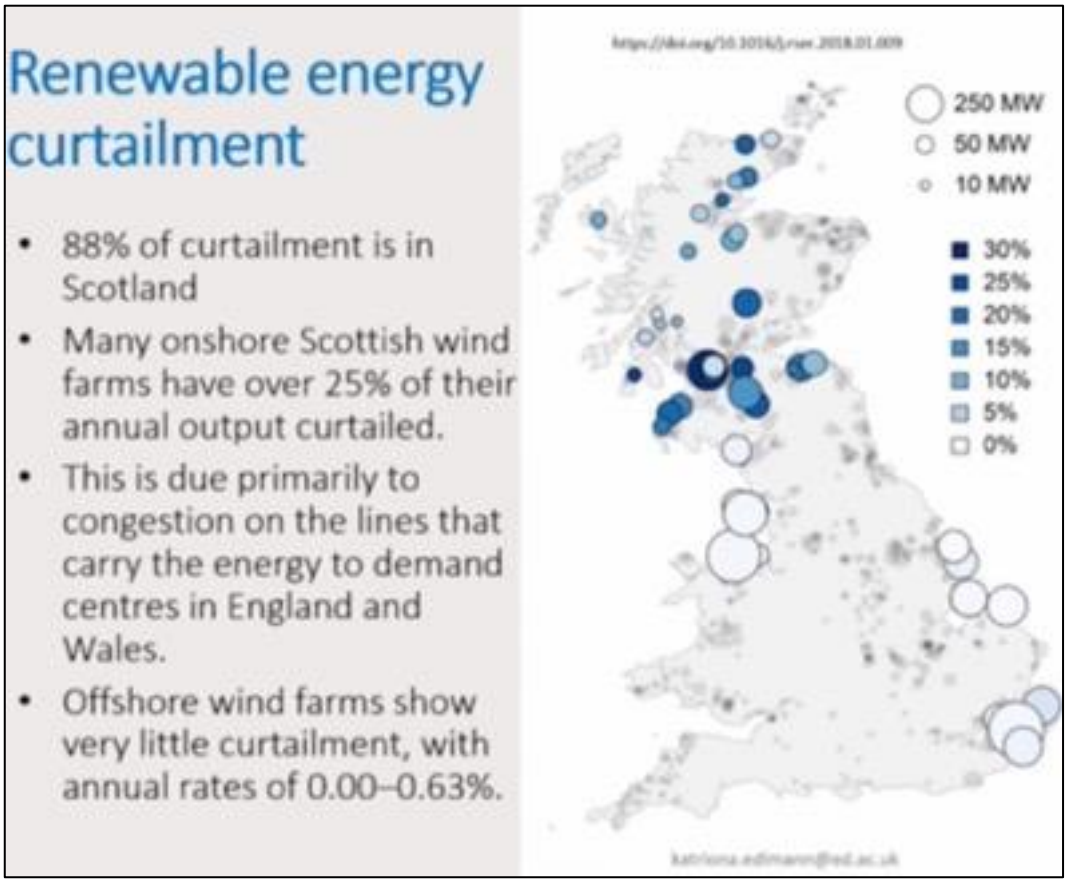

Figure 4.1: Renewable energy curtailment

In January 2024, the BBC reported this adds £40 to U.K. bills. Scottish wind generation is on plan to further double capacity and triple exports by 2030, but grid expansion to cope is lagging. NGESO is considering upgrades to increases exports within limits; the work is not yet approved. Expanding the grid is a major project that will take many years – the grid cannot export 15 – 20 GW, five times its design capacity, by 2030. Grid constraints will increasingly limit exports as capacity rises – curtailment costs will escalate. It will add £180 to utility bills by 2030, according to the BBC, a major concern in the cost-of living crisis. Constraints payments are expected to stay high for at least 10 years:

(https://www.nationalgrideso.com/document/283101/download).

We object to this proposal on the basis that the National Grid and targets are not aligned, leading to significant constraints payments paid for by rising utility bills.

Net zero targets

The developer claims (EIAR Sections 5.3.1 and 5.3.2) that Scottish and UK energy policy is driving requests for Scottish onshore windfarm proposals

- *"the UK Government retains responsibility for the overall direction of energy policy, although some elements are devolved to the Scottish Government"*
- *"UK Government has published … policy documents setting out how targets can be achieved"*

Furthermore, EIAR Sections 5.3.3. and 5.44 state that the Scottish Government's Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 defines legally binding net zero targets requiring that:

- "*Scottish Ministers must ensure that the net Scottish emissions account for the years 2020 is at least 56% lower than the baseline; 2030 is at least 75% lower …, and 2040 is at least 90% lower … ."*

Furthermore, EIAR Sections 5.3.5 - 7 state

- *"…. these … are minimum targets, … not maximums or aspirations."*
- *"The targets legally bind .. Scottish Ministers and have largely been legislated to set the framework for Scotland's response to the Climate Emergency.*"
- *"The Proposed Development …..comes as a .. response to …. energy policy objectives … and…make a contribution to .. attainment of emissions reduction, renewable energy and electricity targets at …Scottish and UK levels"*

Stating that these are minimum targets, not maxima and aspirations, is not justification for the proposal.

The Climate Change (Scotland) Act and targets refer to the net Scottish emissions account. These targets were met by 2020, when Scottish renewable capacity exceeded Scotland's needs; therefore, this legislation doesn't justify this proposal for additional more capacity. **Having met the Scottish net zero emission target, almost all new renewable capacity is for export to the UK**.

As EIAR Section 5.3.2 correctly states, the UK Government retains responsibility for the overall direction of energy policy, so, unless Scottish policy and targets are endorsed at UK level, to meet UK renewable energy and electricity targets, the proposal is not justified. No evidence of UK level endorsement is given, nor evidence of UK Government policy documents setting out how targets can be achieved, and how these relate to Scottish targets.

On this basis, we object to the proposal, which should be refused.

Conclusion

Scotland's progress in meeting its onshore renewable targets is well on track. Any new onshore windfarm needs to highly selective and carefully placed – choosing locations that do not impact local wildlife and people living nearby. Windfarms should be built on brownfield or industrial sites where few people are affected and the consequences for wildlife are minimal, or, better still, offshore.

We believe that Scotland can reach Net Zero targets more effectively and efficiently by integrating their energy strategy across the UK and focusing on offshore wind farms where each turbine produces 30 – 50% more power from the stronger and more sustained wind. Offshore wind projects have the advantages of far lower environmental and social impact plus the additional transmission infrastructure required to move renewable energy to where it is needed can be installed more quickly, and with less public controversy.

No evidence is provided that this proposal, contributing to the generation of far more power than Scotland needs, will support the transition to low carbon energy or a low carbon economy in a cost effective way.

We call for a pause to take stock and see where Scottish onshore wind is headed. Contemplating more capacity now is senseless. We can review as we approach 2030, if we look to be coming up short, plans can be amended to add more. By then we should be on the way to removing the worst bottlenecks and have better understanding of curtailment, storage, hydrogen, etc. and Scottish offshore wind will be in a better position to provide most of the shortfall.

5. OBJECTION TO RES EIAR CHAPTER 6 – LANDSCAPE AND VISUAL IMPACT ASSESSMENT

Objections to 'EIAR Chapter 6 – Landscape and Visual Impact (LVIA) Assessment' are related to **Aberdeenshire Council LDP23, Aberdeenshire Council Assessing Wind Energy Developments PA 2023-21, Aberdeenshire Council Landscape Sensitivity Assessment – Onshore Wind Energy Development in Aberdeenshire PA2023-03, NPF4 Policy 4 and NPF4 Policy 11**.

Summary

We object to the proposal on the basis that

- The windfarm has a significant adverse and unacceptable landscape and visual impact because it is sited on a prominent ridge making it highly overbearing and visible. It therefore contravenes guidelines in multiple publications by Aberdeenshire Council and NatureScot.
- The Hill of Fare forms the northern boundary of the Dee Valley Special Landscape Area (SLA) which is a designated (and therefore protected) landscape area in the Aberdeenshire Local Development Plan 2023 (LDP 2023). Whilst the wind farm would be located outside the boundary of the SLA it would still dominate the SLA and therefore impact the sense of place and the views and vistas along the valley.
- In terms of economic benefit, the developer has assessed this as "not significant" and "minor". Furthermore, there is a significant risk that tourism, an important part of the local economy, will be adversely affected. This is dismissed by the developer.
- In terms of social benefit, the windfarm on the Hill of Fare would have a negative effect on mental or physical wellbeing from a loss of nature, as well as the loss of recreational opportunities, which would be detrimental, not beneficial.
- In terms of environmental impact, this is also detrimental as discussed separately in this document.
- The residential amenity, visual impact, and shadow flicker have not been adequately addressed because the area for residential visual amenity assessment (RVAA) has been limited to a 2km radius which is too small for the scale, location, and prominence of this development
- The landscape and visual impacts of the proposed development are significant over large areas. They cannot therefore be considered localised.
- The mitigations applied are wholly inadequate - it is impossible to mitigate the landscape and visual impacts of large turbines placed on a prominent ridge in a heavily populated area in contravention of national and local wind farm placement guidelines.
- The landscape and visual impacts are very significant and have not been, and cannot be, effectively mitigated due to reasons described in the objections relating to Policy 11(ii) above, so the impact on public access, walking and cycling routes, and scenic routes are also very significant, and plainly adverse.
- In any event, the developer's assessment counts so-called 'mitigation' as a benefit, thus introducing double counting to the assessment.
- The final paragraph of Chapter 6 Landscape and Visual Impact Assessment in the EIAR states that: "*There are no definitive quantifiable thresholds of acceptability in landscape and visual impact assessment. The identified effects on landscape character and visual amenity therefore need to be balanced against the other benefits of the Proposed Development in the overall planning balance".* The EIAR consistently downplays the magnitude of the landscape and visual impacts by asserting that they are either localised or "to-be-expected" for an onshore wind development. There is no recognition that the LVIs would be far, far greater than

comparable wind farms in the area, and therefore would require 'other benefits' to be significantly greater than they are to counterbalance the adverse impacts in the overall planning balance.

POLICY 4: Natural places. (Contravenes policies 4a, 4b, 4d(i), 4d(ii), 4e)

Policy 4a states that "Development proposals which by virtue of type, location or scale will have an unacceptable impact on the natural environment, will not be supported."

Summary

We object to the proposal on the basis that:

- the windfarm has a significant adverse and unacceptable impact because it is proposed to be sited on a prominent ridge making it highly overbearing and visible. It therefore contravenes guidelines in multiple publications by Aberdeenshire Council and NatureScot.

Introduction

The Hill of Fare belongs to the 'Outlying Hills and Ridges Landscape Character Type' and is one of several Grampian Outliers. According to NatureScot (National Landscape Character Assessment, LCT028, 2019) Outliers are "*located at the transition between the high mountains of the Cairngorms and the low farmland of the north-east coastlands in Aberdeenshire…forming a prominent area of high ground*".

Aberdeenshire Council impact assessment

Aberdeenshire Council described the Grampian Outliers in their 2014 Aberdeenshire Council Strategic Landscape Capacity Assessment for Wind Energy as follows: "*although large in scale and simple in pattern with some of the characteristics considered suitable for wind farm development, the Grampian Outliers are distinctive landforms, integral to the identity of much of Aberdeenshire and visible from a very wide area. They form the backdrop to many sensitive LCAs and are the foreground to the Cairngorm massif and National Park. They define the extent of views across the lowlands. They have a high value, high visual sensitivity and high wilderness qualities, forming islands of wild land within the surrounding farmland*".

As a result, the report concluded that the Hill of Fare had "***no underlying capacity for wind turbine development above 15m in height****…primarily due to their importance to the Aberdeenshire landscape, high visual prominence, high relative wildness and recreational value*".
https://www.aberdeenshire.gov.uk/media/11388/section65overallassessmentofcapacityandcumulativedevelopmentmarch2014.pdf.

The 2023 Aberdeenshire Council Landscape Sensitivity Assessment – Onshore Wind Energy Development in Aberdeenshire

(http://publications.aberdeenshire.gov.uk/dataset/0ceb7c55-b43d-45c4-a311-798f4bc9fa75/resource/edccbe32-49ca-4a69-8871-4589aedf3e3b/download/pa2023-03---planning-advice---landscape-sensitivity-assessment---wind-energy-development.pdf) states that the Hill of Fare, which is part of Landscape Character Type (LCT) 28, is a ***"high quality, high value landscape, sensitive to erosion of character from wind energy development of all scales beyond a domestic height turbine."***

The Hill of Fare is an isolated topographical feature consisting of a simple ridge rising to a small plateau some 250-300m above the surrounding populated rural land and is an extremely visible feature across Aberdeenshire. The proposed turbines are planned to be located at the crest of the Hill of Fare (Figure 5.1), making them visible for 360° around it. At 180-200m high

the turbines are almost as tall as the elevation of the Hill itself, and so in their emphasised prominence will appear to reduce the size of the hill.

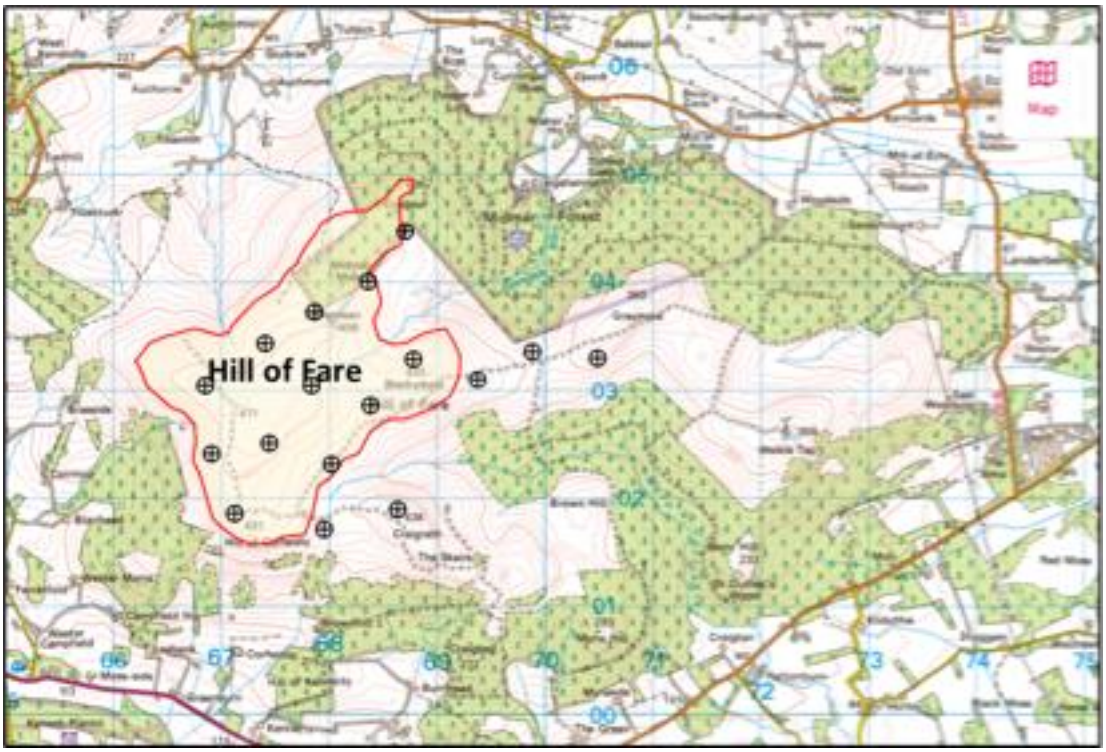

Figure 5.1: Ordnance Survey map with area above 400m marked by red line and proposed 16 turbines showing their prominent position on the highest areas of the Hill of Fare ridge.

The Aberdeenshire Council Planning Advice document 'Assessing Wind Energy Developments PA2023-21' September 2023 states that: *"In general, wind energy developments are not compatible with prominent ridgelines, hills or sensitive skylines, or where they appear to reduce the height of a local hill or range of hills. Therefore, the siting in these locations should be avoided."*. The application contravenes that guidance.

Scottish Natural Heritage Guidance

Similarly, it contravenes the Scottish Natural Heritage (now NatureScot) Guidance for *Siting and Designing Wind Farms in the Landscape* which states in Section 3.29 that: "*Narrow bands of uplands between settled and smaller-scale valleys should be avoided, if a windfarm on the hills would dominate the landscape on both sides*". The windfarm will dominate the views within 15 km where ca. 45,000 people live and will be visible up to 25 km away in Aberdeen City – as demonstrated by the developer's maps showing the Zone of Theoretical Visibility (ZTV), Figure 5.2.

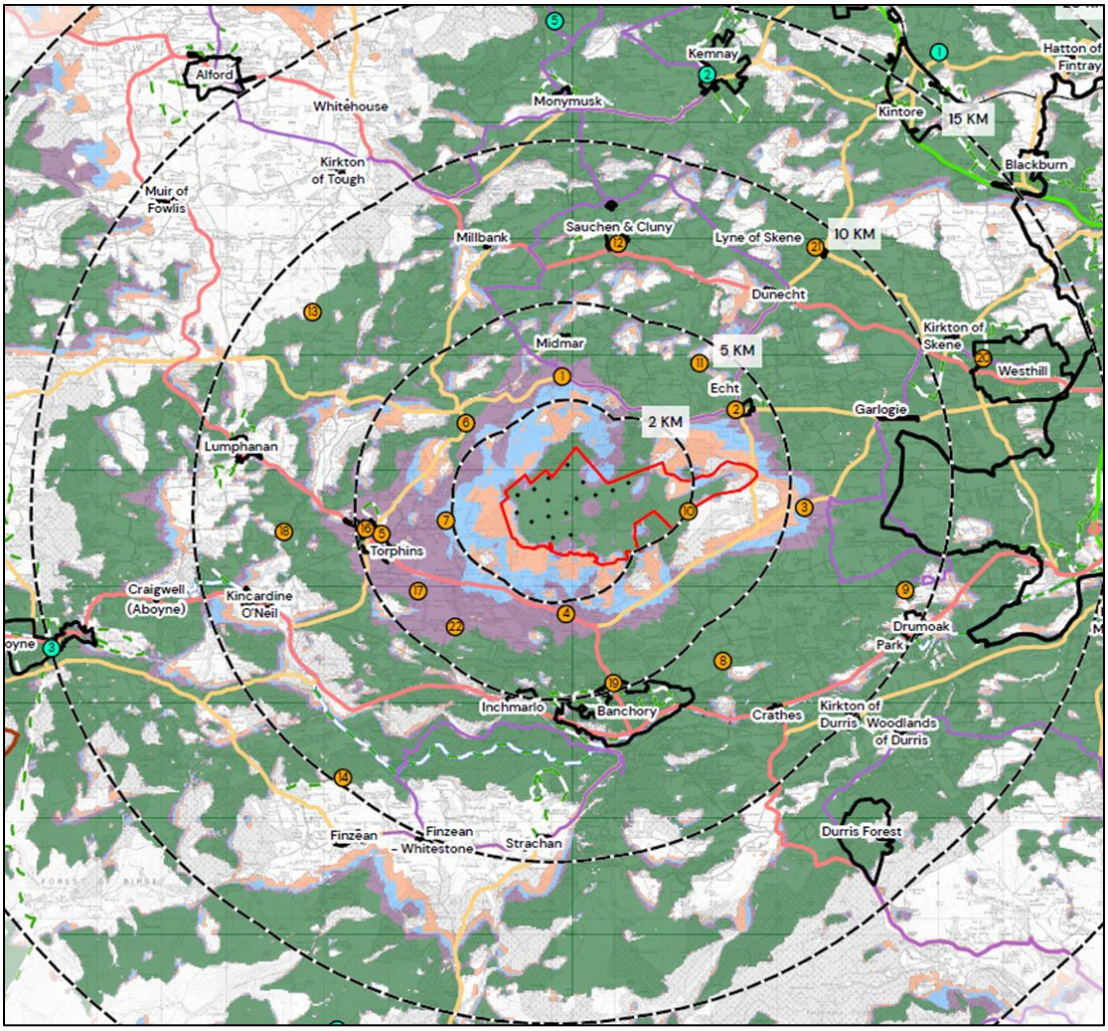

Figure 5.2: Developer's ZTV map – purple/green indicate most/all turbines visible.

Other nearby windfarm developments

A development on Hill of Fare would be out of character with other wind farms in southern Aberdeenshire such as the recently consented Glen Dye (ECU00000676) which is sited within something of a natural bowl and avoids ridgelines so that outside the immediate area the ZTV is reduced and less than it would be, were it on a ridge (Figure 5.3).

A similar avoidance of ridgelines and siting turbines in a natural bowl behind higher landforms has been applied to Fetteresso (ECU00001851) ca. 5km to the South of Banchory.

The Hill of Fare is a popular recreational area for walkers and mountain-bikers for its panoramic views and wild nature, and because it is the closest high ground to Aberdeen city and suburbs. The Hill is described as an "*extensive area of forestry and rough moorland north of Banchory with a number of distinct peaks. Although never very far from human habitation, these hills have a wild and desolate character that belies their geographical position*"

https://www.garioch.info/walks/Scotland/Aberdeenshire/Hill%20of%20Fare%20Return.pdf.

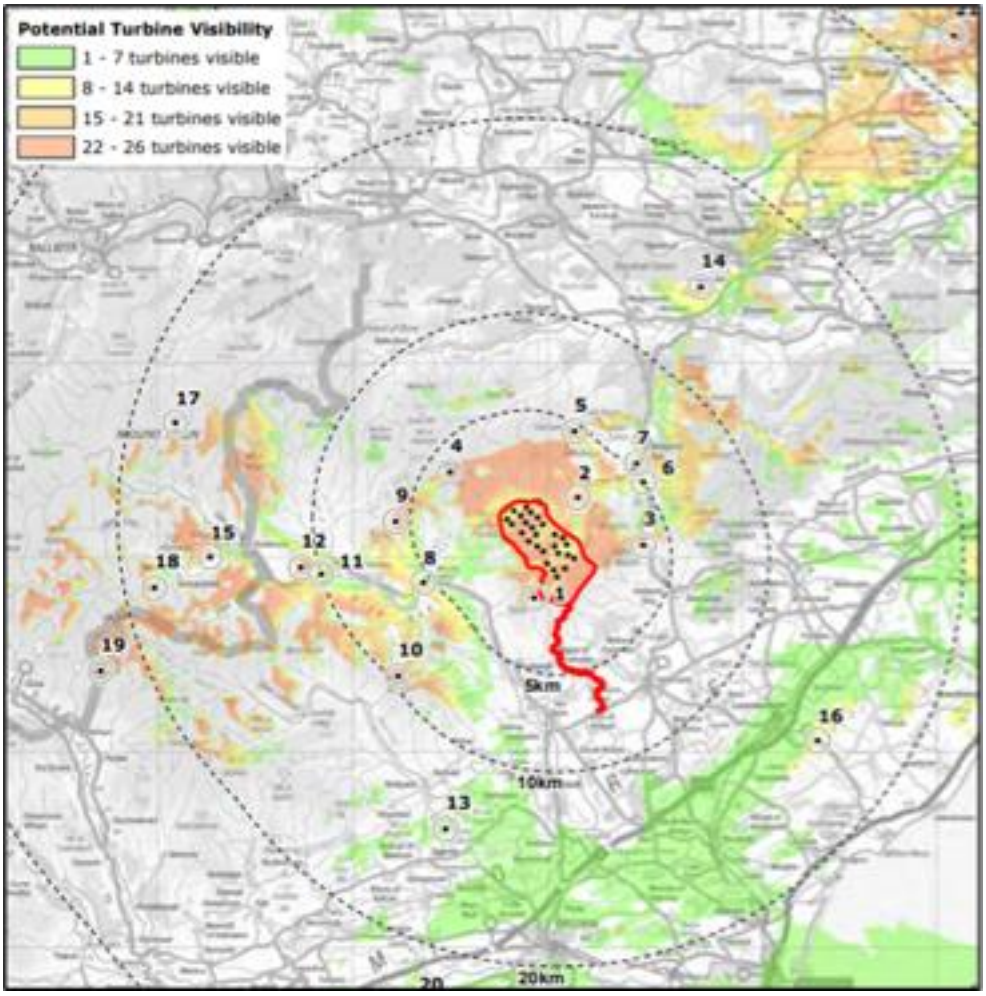

Figure 5.3: Glen Dye ZTV map.

A large windfarm on the top of the Hill of Fare will degrade these recreational aspects and will also impact the "spectacular views" from other iconic recreational hills in protected SLA areas such as Scolty, Bennachie, Correnie Moor, Pitfichie and Pressendye. Again, this contravenes NPF4 Policy 4a, as the high recreational value and prominence mean it would have an unacceptable impact on the natural environment of the immediate land and surrounding areas, and other important natural landscapes in the region.

POLICY 4: Natural places. (Contravenes policies 4a, 4b, 4d(i), 4d(ii), 4e)

Policy 4b states that "Development proposals that are likely to have a significant effect on an existing or proposed European site (Special Area of Conservation or Special Protection Areas) …are required to be subject to an "appropriate assessment" of the implications for the conservation objectives."

European Ramsar sites nearby

The Hill of Fare is located between two existing Ramsar sites at the Loch of Skene and several lochs at Muir of Dinnet (Figure 5.4). The lochs support "**internationally important** numbers of roosting passage and wintering Icelandic Greylag Goose as well as Icelandic Whooper Swan" (Volume 3 of UK SPA network: its scope and content, https://data.jncc.gov.uk/data/3634580a-cabc-4218-872f-8660a1760ad8/uk-spa-vol3-web.pdf).

The Hill of Fare is on the goose migration path to and between these lochs. The developer has undertaken a collision risk analysis which found no significant impact on the goose and swan population using the SPA/Ramsar sites – we note that this is not the same as no strikes being likely.

Figure 5.4: Map showing relative positions of Ramsar sites and Hill of Fare

POLICY 4: Natural places. (Contravenes policies 4a, 4b, 4d(i), 4d(ii), 4e)

Policy 4d(i) requires that "Development proposals that affect a site designated as a local nature conservation site or landscape area in the LDP will only be supported where (i) development will not have significant adverse effects on the integrity of the area or the qualities for which it has been identified."

Summary

We object to the proposal on the following basis:

- the Hill of Fare forms the northern boundary of the Dee Valley Special Landscape Area (SLA) which is a designated landscape area in the Aberdeenshire Local Development Plan 2023 (LDP 2023). Whilst the wind farm would be located outside the boundary of the SLA it would still dominate the SLA and therefore impact the sense of place and the views and vistas along the valley.

Dee Valley Special Landscape Area (SLA)

This is a unique and highly valuable landscape which is the gateway to Royal Deeside and to the Cairngorm National Park hosting more than a million visitors each year. Local residents and visitors are here to enjoy the landscapes and scenery, buildings, history, and traditions, not huge turbines looming over the area which would be completely out of character and seriously detrimental to that experience. It is recognised as a "*nationally important gateway to Cairngorm National Park and is part of the setting of the National Park*" Microsoft Word -

Aberdeen Cumulative Report Final March 2014 (aberdeenshire.gov.uk). The developer's ZTV maps show the development would be visible from ca 70% of the Dee Valley SLA (Figure 5.5).

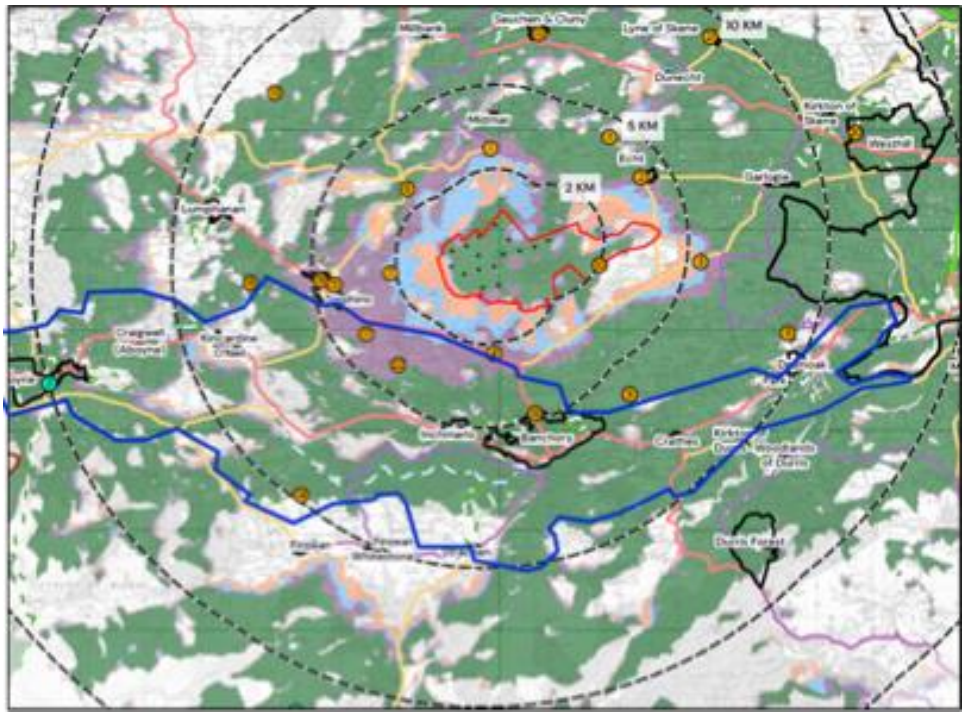

Figure 5.5: Developer's ZTV map with Dee Valley SLA super-imposed (blue line) – purple/green indicate most/all turbines visible.

The sizes of the wind turbines are such that they will dominate the SLA, as illustrated by Figure 5.6.

Figure 5.6: Photomontage of proposed windfarm looking across the SLA. Taken from Scolty Hill (7.5 km away) near the southern boundary of the SLA towards the Hill of Fare. Note that this photograph should be viewed at a much larger scale to appreciate how the human eye would actually perceive it.

Guidance from Scottish National Heritage (SNH) on Siting and Designing Windfarms in the Landscape states that "*Landscape and scenic value is recognised at national and local levels through development plan policies and designations such as National Parks, National Scenic Area (NSA) or local landscape designations including Special Landscape Areas (SLA) and Areas of Great Landscape Value (AGLV), World Heritage Sites and Conservation Areas. In many areas, wind farm development is located outwith but close to these designations. In these circumstances the effects on the designated landscape remain a key consideration*" (paragraph 3.8).

Locating a large windfarm on the Hill of Fare that can be seen from 70% of the SLA, is the paradigm of a failure to take the self-evident impact on the nearby SLA into account. That means that the SNH guidance has not been followed. It also contravenes Policy 4d(i) as it would have significant adverse effects on the integrity of the area or the qualities for which it has been identified. Similarly, it also contravenes the guidance in Aberdeenshire Council: Assessing Wind Energy Developments, Planning Advice PA2023-21, September 2023 which states: *"Any proposal must not affect the integrity of a Special Landscape Area (SLA), as identified Appendix 13 in the LDP".* Aberdeenshire Local development Plan - October 2022 – Appendix 13 Aberdeenshire Special Landscape Areas

POLICY 4: Natural places. (Contravenes policies 4a, 4b, 4d(i), 4d(ii), 4e)

Policy 4d(ii) requires that "Development proposals that affect a site designated as a local nature conservation site or landscape area in the LP will only be supported where (ii) any significant adverse effects on the integrity of the area are clearly outweighed by social, environmental or economic benefits of at least local importance."

Summary

We object to the proposal because:

- in terms of economic benefit, the developer has assessed this as "not significant" and "minor". Furthermore, there is a risk that tourism, an important part of the local economy, will be adversely affected. This is dismissed by the developer.
- In terms of social benefit, the windfarm on the Hill of Fare would have a negative effect on mental or physical wellbeing from a loss of nature, as well as the loss of recreational opportunities, which would be detrimental, not beneficial.
- In terms of environmental impact, this is also detrimental as discussed separately in this document.

Tourism and economic benefit

Aberdeenshire is the third most visited area in Scotland after Edinburgh and Glasgow with a unique combination of castles, monuments, scenic walks / rides, and granite-built traditional villages. 64+ Crucial Scotland Travel & Tourism Statistics (2023) (dreambigtravelfarblog.com) Point 48.

Royal Deeside is the jewel containing the most popular visitor attractions with a unique combination of castles, monuments, scenic walks / rides, and granite-built traditional villages. "*Within Aberdeenshire, Deeside contains the most popular visitor attractions, owing to its scenery, landmarks, sporting facilities, accessibility, and Royal connections. It also provides access to the heart of Aberdeenshire and the Cairngorms*" (Landscape Character Assessment: Aberdeenshire - Landscape Evolution and Influences | NatureScot 2019).

In addition, "*Deeside is representative of Aberdeenshire's identity, and is a popular tourist destination, both in itself, and as a link between Aberdeen and the National Park. It is*

important that development and management proposals reflect the identity and sense of place associated with the River Dee, particularly at its western end, increasing glimpses to the higher hills mark the approach to the National Park". Aberdeenshire Local development Plan - October 2022 – Appendix 13 Aberdeenshire Special Landscape Areas (page 1106).

Tourism is an important, not to say essential contributor to the economy in this part of Aberdeenshire. Very few local jobs will be generated by the windfarm in building or operating it, but its presence will likely impact tourism, jeopardising local jobs and reducing inward investment. The impact of windfarms on tourism is nuanced – it depends on what the tourists come to an area for. According to Mountaineering Scotland (https://www.mountaineering.scot/assets/contentfiles/media-upload/Wind_farms_and_tourism_in_Scotland_-_a_review,_Nov_2017_20171106.pdf), "*it is highly likely that windfarms do have an effect on tourism* ***if located in the wrong places****… It affects particular areas, where large built structures are dissonant with expectations of desired attributes such as wildness or panoramic natural vistas*".

RES have claimed that reports indicate that there is no evidence that windfarms impact tourism, but these reports are from 2014 or earlier, when the few turbines that existed were much smaller. This conclusion is no longer valid given the large numbers of wind farms constructed since then and the huge turbines now being considered.

The developer's application summarises the socio-economic effects of the development in section 13 stating that "*The socio-economic impact during construction of the Proposed Development was assessed as minor beneficial in Aberdeenshire, and minor beneficial in Scotland. The annual economic impacts related to operation were assessed as negligible beneficial for both study areas. All effects have been assessed as not significant*". That is not a balanced conclusion. With a finding of negligible benefits clearly the adverse effects on the integrity of the area are not outweighed.

Social benefit

The Scottish Government encourage the use of greenspaces and outdoor education in schools and society. The Hill of Fare is a popular walk and cycling route including for school trips. A windfarm would put a stop to all of this - people want to enjoy the countryside, with the mature conifer forest and heather moorland and not look at giant, noisy wind turbines. It is scientifically proven that nature improves mental and physical wellbeing (Mental Health Foundation, Undated). The recent years of Covid-19 have had a negative impact on society, and now more than ever mental and physical wellbeing is important. A windfarm on the Hill of Fare would have a negative effect on mental or physical wellbeing from a loss of nature, as well as the previously mentioned loss of recreational opportunities. This would be detrimental to society, not beneficial as required under policy 4d(ii).

POLICY 4: Natural places. (Contravenes policies 4a, 4b, 4d(i), 4d(ii), 4e)

Policy 4e states that "The *precautionary principle* will be applied in accordance with relevant legislation and Scottish Government guidance."

Precautionary principle

The precautionary principle was defined in the UN Rio Declaration on Environment and Development 1992. It states, "*where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation*". Where there is uncertainty as to the level of risk of

environmental harm attached to a proposed action, this principle enables preventative or restrictive measures to be taken without having to wait until the harm materialises.

Furthermore, the Scottish Planning Policy document (section 204) states: "*Planning authorities should apply the precautionary principle where the impacts of a proposed development on nationally or internationally significant landscape or natural heritage resources are uncertain but there is sound evidence indicating that significant irreversible damage could occur*", (ScotGov Planning Policy 2014 - Scottish Planning Policy (www.gov.scot)). This is applicable to many of the grounds for objections stated in this document.

It is also applicable to the likelihood of further turbines being added to the Hill of Fare if consent is granted, as windfarm extensions are extremely common. The precautionary principle should also be applied to the concept of future windfarms being developed in the area, as once a single windfarm is built then developers can claim that windfarms are now "part of the landscape". NatureScot acknowledges the potential for windfarms to become a new landscape feature themselves, thus changing the character of the landscape (NatureScot Guidance - Assessing the cumulative landscape and visual impact of onshore wind energy developments) .

POLICY 11: Energy. (Contravenes policies 11e(i), (ii) and (iii)

Policy 11e(i) states that "Project design and mitigation will demonstrate how the following impacts are addressed …impacts on communities and individual dwellings, including, residential amenity, visual impact, noise and shadow flicker".

Summary

We object to the proposal because

- the residential amenity, visual impact, and shadow flicker have not been adequately addressed because the area for residential visual amenity assessment (RVAA) has been limited to a 2km radius which is too small for the scale, location and prominence of this development
- the landscape and visual impacts of the proposed development are significant over large areas which can in no way be considered localised.

RVAA assessment

EIA reports for onshore windfarms typically use a distance of 2 km radius as the limit for RVAA but with the increased turbine heights being used in recent applications this is sometimes increased to 3 km. Examples include the Fetteresso windfarm (ECU00001851) which has turbines up to 200m, and Rothes III windfarm (ECU00000474) which has turbines up to 225m. The relatively steep hillsides of Hill of Fare lead to concave slopes which means residences within 2 km as partly screened from the development. However, beyond 2 km the landscape flattens, and rises to the north, so residences 2 – 3 km away experience a far more direct view of the turbines**.**

Therefore, the RVAA limit of 2 km is inappropriate and should be expanded to 3 km, which is particularly important as the Hill of Fare is a small area with an unusually high number of residences on its slopes (more than 100 as shown in Figure 5.7).

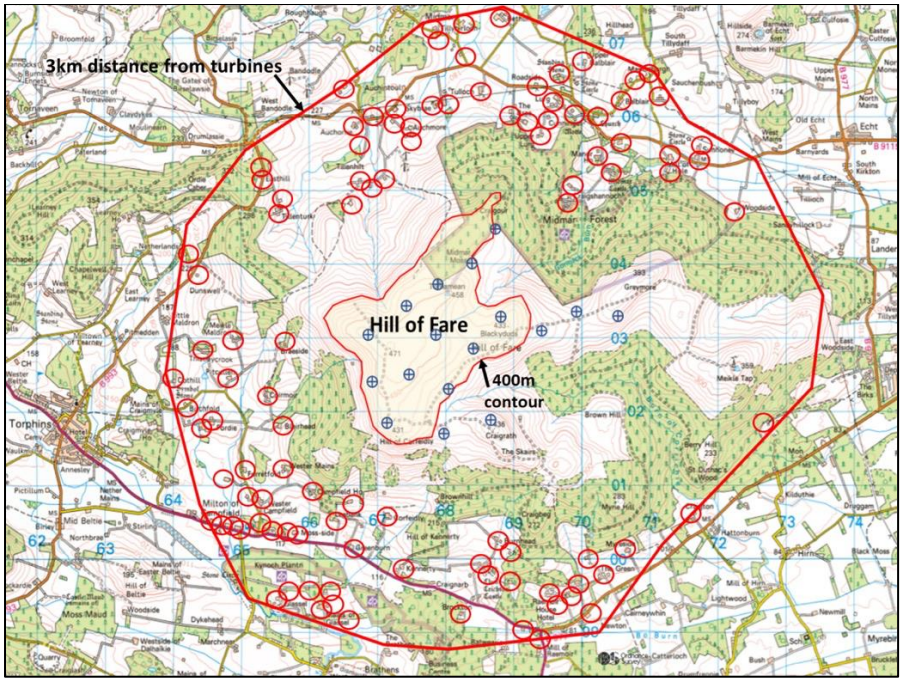

Figure 5.7: Hill of Fare with 3km radius and homes / businesses within that radius circled

For comparison the Mid Hill / Fetteresso windfarms are in a much larger area of uninhabited countryside so impact only ca. 20 homes / farms and no villages anywhere near it – this is more typical of windfarms in rural areas (Figure 5.8).

Figure 5.8: Mill Hill / Fetteresso with 3km radius and homes / businesses within that radius circled

The visual amenity impact on residents with homes looking onto Hill of Fare is more important nowadays than previously as more people are spending a larger portion of their days at home. This is because since the pandemic a much larger number of people spend significant time working from home, and the demographic changes in the UK have resulted in a higher proportion of the population being retired and these are often living in the countryside. Turbines are distinct from many developments where residents' visual amenity is potentially impacted because the motion attracts the human eye, so it is far more disturbing from a distance.

POLICY 11: Energy. (Contravenes policies 11e(i), (ii) and (iii)

Policy 11e(ii) states that "Project design and mitigation will demonstrate how the following impacts are addressed: ….significant landscape and visual impacts, recognising that such impacts are to be expected for some forms of renewable energy. Where impacts are localised and/or appropriate design mitigation has been applied, they will generally be considered to be acceptable."

Summary

We object to the proposal because

- the landscape and visual impacts of the proposed development are significant over large areas which can in no way be considered localised.
- the mitigations applied are wholly inadequate - it is impossible to mitigate large turbines placed on a prominent ridge in a heavily populated area in contravention of national and local wind farm placement guidelines.

The impacts are not localised

The application describes the areas over which significant landscape and visual effects occur but despite the developer claiming they are localised they are clearly not, so since the developer states that the development would significantly impact multiple landscape character types up to large distances (10+ km), and also significantly impact visual amenity in 16 of 22 viewpoints at all distances up to 10km – see following quotes from the EIAR:

"6.10.8: *The Proposed Development would result in direct and significant effects on the part of the landscape character type within which the Proposed Development is located. Indirect and significant effects would extend to approximately 7 km within LCT 1 (ix) Central Wooded Estates to the north and east, LCT 25 (ii) Deeside to the south and LCT 11 (i) The Cromar Uplands to the north-west and within approximately 10 km in LCT 22 (ii) The Mounth to the south"*.

"6.10.10: *It has been assessed that there would be significant visual effects experienced at 16 of the 22 representative viewpoints, as summarised above in **EIAR Table 6.6** during daylight hours and at 11 viewpoints during the hours of darkness*".

Similarly, there would be significant impacts on all the major settlements within 5 km (Torphins, Midmar, etc) and other settlements out to 10 km distant – again, this is not localised:

"6.10.13: *In relation to settlements, the assessment found that all of the settlements within 5 km (Torphins, Midmar, Echt, Inchmarlo and Banchory) would experience significant visual effects during daylight and dark sky hours and settlements within 5 to 10 km brought forward into detailed assessment would also experience significant visual effects during daylight and dark sky hours*."

A comparison of the ZTVs for Hill of Fare (Figure 5.2) and Glen Dye (Figure 5.3) illustrates how the visual impact of the latter is localised by the mitigation of siting turbines within the natural bowl and by avoiding the nearby ridgelines. The Hill of Fare area is too small and comprises a simple ridgeline, so a similar approach is simply not possible.

Also, the impact on a designated landscape of the Dee Valley SLA is not localised as the development would be visible from c. 70% of the SLA (see Figure 5.5) and far beyond the 7 km mentioned in the EIAR:

"6.10.16: *In terms of effects on the Dee Valley SLA, the assessment found that indirect significant effects on views north from the SLA would extend to approximately 7 km but the addition of the Proposed Development would not undermine the understanding or appreciation of the underlying landscape of the SLA or its special qualities*".

The developer also states that it would not undermine the understanding or appreciation of the SLA, but this is not the case as mentioned in the objection to policy 4d(i) above.

Mitigations are inadequate

The final layout of the development has adopted the following design changes:

- the number of turbines reduced from 17 to 16.
- turbine tip heights were scoped to be 250 m but have now been reduced to 200 m for five turbines and 180 m for 11 turbines;
- turbines 6 – 9 and turbines 12 -14 moved to be set back from ridgelines rather than sitting on ridges;

These mitigations were introduced ostensibly to reduce the impacts on landscape character, designated landscape areas outwith the development (specifically the Dee Valley SLA), and visual amenity for residents and communities. However, the changes are far too minor to provide meaningful mitigation:

- A reduction of one turbine is insignificant and few, if any, observers would notice.
- Reducing the tip height from 250m to 180 – 200m helps, but is nowhere near the guidance of domestic scale (ca. 15m) for this landscape character type as given in the 2023 Aberdeenshire Council Landscape Sensitivity Assessment – Onshore Wind Energy Development in Aberdeenshire in the Aberdeenshire Council LDP. Again, the casual observer in the surrounding area, including the Dee Valley SLA, still sees 16 domineering turbines atop the Hill of Fare.
- The movement of the turbines was minor with them still being on the plateau area or on local prominences slightly set back from the highest point on the main ridge. Again, this is not material, and nowhere near the mitigations made in other wind farms to avoid ridgeline locations.

The simple plateau and ridge topography of Hill of Fare makes it impossible to mitigate the landscape and visual impact of the development by siting the turbines in a sensitive manner. An example of where this has been done is the Mid Hill / Fetteresso extension windfarms behind the Kerloch hill (Figures 5.9 and 5.10) which is almost equidistant to the South of Banchory as Hill of Fare is to the North.

Figure 5.9: Location of Mid Hill / Fetteresso windfarms relative to Banchory

Figure 5.10: Location of Mid Hill / Fetteresso turbines behind high ground - areas above 400m marked by red line.

The turbines and Mid Hill / Fetteresso have been placed behind hills and ridges to minimise visibility and this is possible because of the topography and size of the area being c. 10 km by 13 km between surrounding roads.

Mitigation of the visual and landscape impact is not possible on Hill of Fare due to its topography and small area of ca. 6km by 9 km – less than half that of Mid Hill / Fetteresso area (Figure 5.11).

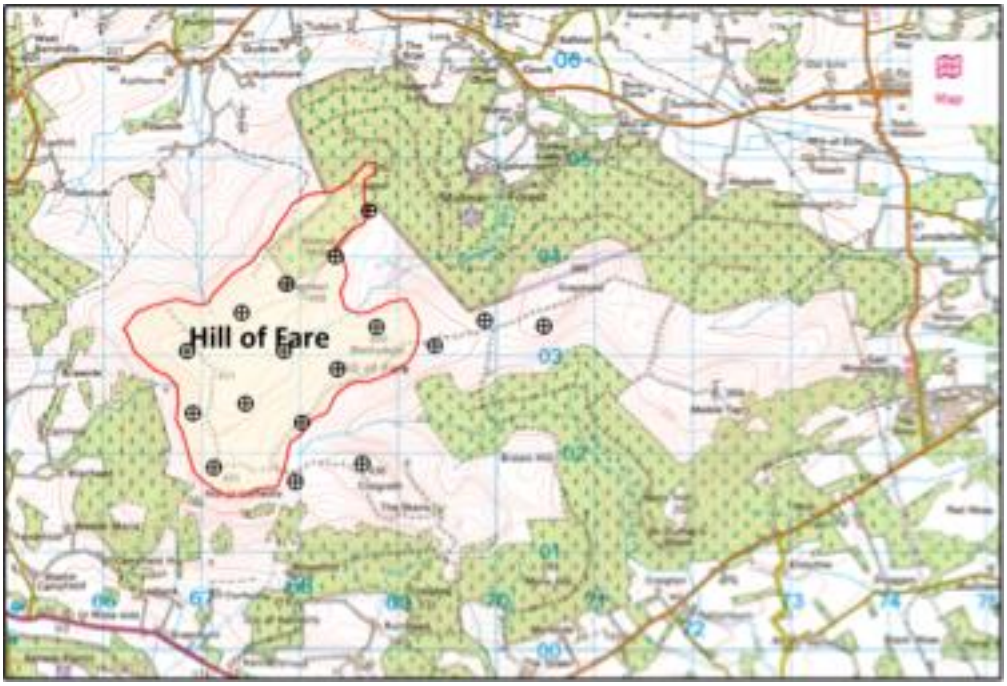

Figure 5.11: Proposed location of turbines on Hill of Fare on highest land - areas above 400m marked by red line.

POLICY 11: Energy. (Contravenes policies 11e(i), (ii) and (iii)

Policy 11e(iii): states that "Project design and mitigation will demonstrate how the following impacts are addressed …public access, including impact on long distance walking and cycling routes and scenic routes".

Summary

We object to the proposal because

- The landscape and visual impacts are very significant and have not been, and cannot be, effectively mitigated due to the reasons described in the objections relating to Policy 11(ii) above, and so the impact on public access, walking and cycling routes, and scenic routes are also very significant.
- The final paragraph of EIAR Chapter 6 Landscape and Visual Impact Assessment states that: "*There are no definitive quantifiable thresholds of acceptability in landscape and visual impact assessment. The identified effects on landscape character and visual amenity therefore need to be balanced against the other benefits of the Proposed Development in the overall planning balance".* The EIAR consistently downplays the magnitude of the landscape and visual impacts by asserting that they are either localised or to-be-expected for an onshore wind development. There is no recognition that the landscape and visual impacts (LVIs) would be far, far greater than comparable wind farms in the area, and therefore would require 'other benefits' to be enormous to counterbalance the adverse effects in overall planning balance.
- Our response to other chapters in the EIAR shows that proposed benefits are either Not Significant (Socio-economic), or negative (Carbon payback), or create unacceptable risk to

locals' wellbeing (water supplies & noise) so there is no way that they provide this counterbalance.

Public access and amenities

The landscape and scenery of Aberdeenshire in the vicinity of Hill of Fare and Deeside is unique and extremely popular with both residents and visitors from Aberdeen and further afield for recreational walking and running activities. The area is dominated by the Grampian outliers of which Hill of Fare is the closest to Aberdeen, and therefore popular, with access normally from both east and west ends. Viewpoint 10 from Meikle Tap at the eastern end is classed as Major effect and Significant Operational effects which demonstrates the impacts which have not been addressed and cannot be mitigated.

Scolty Hill is located on a parallel ridge on the south side of the Dee Valley SLA and immediately above Banchory so is one of the most popular family walks in the area. The Hill of Fare dominates the view from Scolty Hill to the north while to the south Kerloch and Clachnaben plus other hills are seen. The operating Mid Hill windfarm is closer to Scolty than Hill of Fare but the turbines are largely hidden behind the Kerloch ridge (see figure 5.10) so only a few blades can be seen and are not intrusive and do not look out of place – photo below from Scolty looking Southeast to Kerloch (Figure 5.12). Scolty should have been selected as a viewpoint owing to its popularity with both locals and visitors. Tom's Cairn VP (below) is 9.8 km distant from HoF but considered to be Significantly impacted with High sensitivity and Major moderate effect, so it is safe to assert that Scolty would be even more significantly impacted as it is only 7.5 km away.

Figure 5.12: Photo from Scolty towards Kerloch with turbines on Mid Hill wind farm to its left

Tom's Cairn shown in viewpoint 14 is another popular family walk along the same ridge as Scolty but further west. Walks along the Grampian outliers and high ridges of the area are justifiably popular and the placement of a wind farm on top of a ridge would be detrimental to the landscape character of the area and would destroy the sense of place and wildness.

There is a network of major and minor roads around the Hill of Fare and Dee Valley that makes it a wonderful place to go road cycling (Figure 5.13) with many clubs and groups in the area.

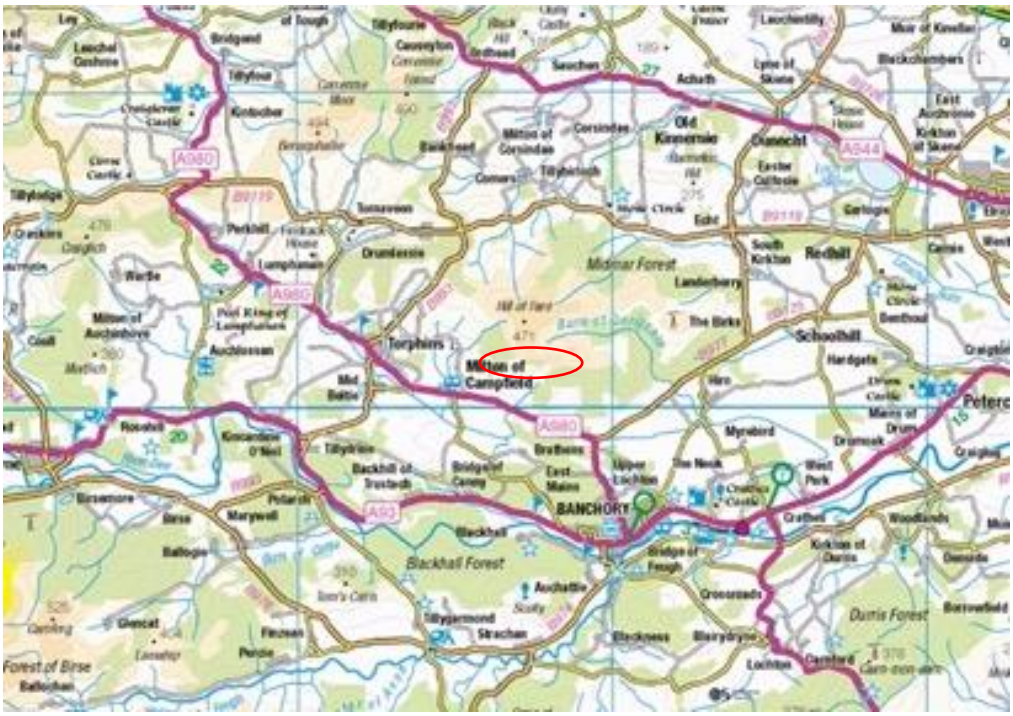

Figure 5.13: OS map showing network of roads around Hill of Fare (circled) – grid lines are 10km.

There is also a significant and extensive network of gravel routes (access tracks in forests and hills) that are increasingly popular. Mountain-biking on Hill of Fare, Scolty and Blackhall, and Durris Forest is also very popular and draws cyclists from Aberdeen and further afield. Given that 16 out of the 20 viewpoints within 10 km of Hill of Fare would be significantly impacted, and given the developers' ZTV, it is reasonable to assume all these receptors would be impacted along their route by this windfarm development on Hill of Fare, but particularly those on Hill of Fare itself. In assessing the impact on cycling routes, the EIAR goes into detail on only a few specific routes suggesting the impact was limited but when riders are travelling typically between 30 – 100km they will be impacted at regular intervals on their journey almost anywhere in the vicinity of Hill of Fare.

Conclusions

The proposed windfarm has a significant and unacceptable impact on the local landscape, contravening Aberdeenshire Council planning guidance, LDP23, as well as NPF4 policies 4 and 11. Permission should be refused.

6. OBJECTION TO RES EIAR CHAPTER 7 – CULTURAL HERITAGE ASSESSMENT

Objections to 'EIAR Chapter 7 – Cultural Heritage Assessment' are related to **NPF4 Policy 7 (Historic assets and places) and Policy 11 (Energy).**

Policy 7: Historic assets and places (contravenes Policy 7o)

> **Policy 7o** states that "Non-designated historic environment assets, places and their setting should be protected and preserved in situ wherever feasible. Where there is potential for non-designated buried archaeological remains to exist below a site, developers will provide an evaluation of the archaeological resource at an early stage so that planning authorities can assess impacts. Historic buildings may also have archaeological significance which is not understood and may require assessment. Where impacts cannot be avoided, they should be minimised. Where it has been demonstrated that avoidance or retention is not possible, excavation, recording, analysis, archiving, publication, and activities to provide public benefit may be required through the use of conditions or legal/planning obligations. When new archaeological discoveries are made during the course of development works, they must be reported to the planning authority to enable agreement on appropriate inspection, recording and mitigation measures."

Policy 11: Energy (contravenes Policy 11e(vii))

> **Policy 11e(vii)** states that "Project design and mitigation will demonstrate how the following impacts are addressed …impacts on historic environment"

Summary

We object to the proposal on the basis that

- The methodology used is flawed leading to dilution and omission of impact.
- Specific sites requested by HES to be assessed have not been adequately evaluated, and others have been under-represented.
- The cumulative assessment of other windfarms is incorrect.
- No attempt has been made to take into account any new archaeological discoveries that may be made (e.g., on the Battle of Corrichie site).

Introduction

> Chapter 7 of the EIAR, presented by SLR Consulting Ltd on behalf of the developer RES, is designed to assess any significant impacts of the proposed Hill of Fare Wind Farm on local Cultural Heritage. That is a legal requirement directed by the Electricity Works Environmental Impact Assessment Scotland Regulations 2017.

Flawed methodology results in dilution and omission of impact

> There is an attempt in this document to mitigate the impact on the hundreds of Scheduled Monuments, and Listed Buildings around the Hill of Fare, by careful selection and omission. Although there is no requirement to assess Category B and C listed buildings (as agreed with Historic Environment Scotland (HES)), Aberdeenshire Council Archaeology Service (ACAS) made a specific request "that wider consideration be given to the wider landscape than individual assets", which SLR has **not** done.
>
> Indeed, by extending the range of interest to 10 km from the wind farm, **a dilution of impact has been created**. If the distance is reduced to 5 km from any turbine, the area (78.5 square km) is one quarter of the overall area and yet **contains proportionately a much higher number of historic assets**. SLR assess the impact on an individual basis (EIAR Section 7.6.6),

whereas in fact the impact affecting this more concentrated area of historic interest is considerable.

In addition, there are at least 124 more buildings and sites in this area that Aberdeenshire Council consider "are of historical importance" as recorded by the National Record of the Historic Environment (NRHE, part of the HES) that have not been considered by SLR.

SLR have managed to avoid the areas of most concern by computer modelling the Zone of Theoretical Visibility (ZTV) within a range of 10 km from any turbine, excluding Heritage sites of Local and Regional importance, and avoiding "clusters" of historically significant monuments and buildings.

Furthermore, most of the on-the-ground surveys were carried out during the summer period, when all the flora was in full bloom, to an extent masking the actual impact of the windfarm in many areas.

During their assessment process, half-hearted attempts were made to access (LB16262) Midmar Castle (EIAR Sections 7.4.5, 7.4.29, and 7.6.38) but these never succeeded. The result was a "minor" significant effect assessment. The Castle Gardens (exposed to the Hill of Fare) and sundial are both "A" listed, but again no wider consideration has been provided.

We object on the basis that the methodology used in the assessment was flawed and considerably underestimates the impact the windfarm will have on a large number of historic sites.

Specific Historic sites not assessed; others under-represented

HES specifically asked for key assets they consider have potential for "significant impact" (EIAR Section 7.3.1), and included Tilquhillie Castle (LB38), but the only mention of this castle is in paragraph 7.6.116 concerning the history of Dunecht House. Another on the HES list, Tyllicairn Castle (LB2959) has no further mention in the entire document!

Misquotes (EIAR Section 7.4.14) and misleading photographs (EIAR Plate 6.1) have been noted, as have inaccuracies with asset descriptions (e.g., EIAR Section 7.6.41). This has led to the impact of the windfarm on local Heritage as being assessed as "moderate" for 2 assets, and "minor" to "none" for the remaining 14 monuments and buildings. This is a significant under-representation.

The Learney Estate, Torphins, and Midmar all have areas with a high concentration of historically important sites, listed buildings, and schedules monuments. Assessing one monument, or one building does not scale the impact on the collective nature of these areas.

In Midmar for example the area bounded by Midmar Kirk, Sunhoney, and Midmar Castle, approximately 1800m by 900m can be considered an area of "important historic interest". In total this relatively small area includes six scheduled monuments, three "A" listed sites, four "B" listed sites, three sites of local historic interest, two dwellings (now removed from the list), and a war memorial.

Furthermore, Scheduled Monument SM100 is not just a single site, but consists of St Nidan's Church with its "medieval" foundations, the graveyard, the early medieval "Cunningar Motte", and the area it lies in, believed to be the site of the early Mediaeval village. It is not just a "family graveyard" (EIAR Section 7.6.41) but contains the graves of the Bell family, Master masons and architects of the great houses and castles of Aberdeenshire, who chose Midmar to rest in peace.

Moreover, the world renowned Midmar Stone Circle (SM32) beside Midmar Kirk, set in tranquil surrounding (within a graveyard that is still in use) has a panoramic view of the Hill of Fare. Yet SLR's assessment statement of the monument (EIAR Section 7.6.62) "The operation

of the Proposed Development would not result in such a high level of impact that it would adversely affect the integrity of the asset's setting", is totally contrary to the reality.

We object on the basis that specific sites requested by HES to be assessed have not been adequately evaluated, and others have been under-represented.

Cumulative assessment

An assessment of cumulative effects of wind turbines is required (EIAR Section 7.9.1). SLR states "as there are no developments within 15 km that are in the planning system no cumulative impact is predicted". This is incorrect - there is an application APP/2023/1651 to build two 81m turbines at Auchorie Farm, Midmar.

New archeological discoveries

Although the Battle of Corrichie has not been listed on the HES schedule the National Planning Framework states "When new archaeological discoveries are made during the course of development works, they must be reported to the planning authority to enable agreement on appropriate inspection, recording and mitigation measures."

We object on the basis that no attempt has been made to take this into consideration.

Conclusion

While SLR have consulted with HES, ACAS, Torphins Community Council, and other individuals to target areas of concern, the report avoids some, takes isolated assessments of others, looks at sites with no impact at all (due to their position and distance) and chooses to completely ignore the collective importance of some of the most historic areas.

An indifferent and lacklustre summary in its conclusions, it plays down the truth of the negative consequences to local heritage this huge wind farm will bring.

We object to the proposal on the grounds of impact on historical assets that have not been adequately assessed.

7. OBJECTION TO RES EIAR CHAPTER 8 – ECOLOGY ASSESSMENT

Objections to 'EIAR Chapter 8 – Ecology Assessment' are related to **NPF4 Policies 1, 3, and 11**

POLICY 1: Climate and nature crises

The National Spatial Strategy for Scotland 2045 states that "Policy 1 gives significant weight to the nature crisis to ensure that it is recognised as a priority in all plans and decisions".

POLICY 3: Biodiversity. (Contravenes policies 3b, 3b(i), 3b(iv), 3c, 3d)

Policy 3(b) requires "Development proposals for national or major development, or for development that requires an Environmental Impact Assessment, will only be supported where it can be demonstrated that the proposal will conserve, restore and enhance biodiversity, including nature networks so they are in a demonstrably better state than without intervention."

Policy 3b(i) states that "The proposal must be based on an understanding of the existing characteristics of the site and its local, regional and national ecological context prior to development."

Policy 3b(iv) requires that "Significant biodiversity enhancements are provided, in addition to any proposed mitigation. This should include nature networks…Management arrangement for their long-term retention and monitoring should be included wherever appropriate."

Policy 3c requires "Appropriate measures to conserve, restore and enhance biodiversity."

Policy 3d: states that "Any potential adverse impacts…on biodiversity, nature networks and the natural environment will be minimised…This will take into account the need to reverse biodiversity loss…" Furthermore, Policy 3d requires the need to "Safeguard the ecosystem services that the natural environment provides…"

POLICY 11: Energy. (Contravenes policy 11e(ix))

Policy 11e(ix) states that "Project design and mitigation will demonstrate how the following impacts are addressed …biodiversity

Summary

We object to the proposal on the basis that

- The assessment and management plans that the developer has produced do not give confidence that they will conserve, restore, and enhance biodiversity on the site.
- There are some important omissions in the Environmental Impact Assessment (EIA) Ecology Assessment which indicate that the existing characteristics of the site are not understood adequately, including a complete absence of wildcat and invertebrate surveys, and investigations of potential invertebrate habitats (pond and bog pools). Explanations are needed as to why these were not carried out.
- Map overlays with proposed site infrastructure are missing. Such overlays are standard practice in Environmental Impact Assessments (EIA) and were requested by NatureScot in their response to the project Scoping Report. The absence of overlays makes verification of predicted impacts on habitats difficult. Amended maps should be issued.
- The EIA ecological report contains misidentifications and errors. Several of the National Vegetation Classification (NVC) plant communities in the survey appear to be misidentified (being normally found only in the south of the UK), including M21 mire and all H9 dry heath.

This suggests that the surveyor used was either inexperienced, or England based and not familiar with Scottish upland ecology

- The spatial scale of the site values should be re-examined – the size difference between 'Local' (sites of value within 2km of the site) and 'Regional' sites (sites of value within Aberdeenshire) is too great and leads to undervaluation of some species and habitats.
- In view of the need to reassess several species and habitat valuations, there is a likelihood that some significance of effects are assessed as too low, and reassessment of respective impacts therefore needs to be undertaken. This includes otter and pine marten, M4 mire and associated bog pools, and M19 blanket mire.
- The Outline Biodiversity Enhancement and Management Plan (OBEMP) does not provide enough detail to allow prediction with a high degree of confidence that residual beneficial effects will result. This is particularly the case for proposed blanket bog, dry heath and deer management, for which proposed measures are very generic and not based on identified conditions on the ground or on discussions with the landowners/ managers as to what is possible or acceptable to them. Nor is there any identification of who is to carry out the work, some of which proposed is quite specialist.
- No information on monitoring is provided in the OBEMP, which is a major omission. The success of the proposed management will depend to a large degree on sufficient monitoring.
- The EIA ecological report contains numerous textual errors, further reducing confidence.

Introduction

Wildlife in Scotland is known to be declining at a faster rate than the rest of the UK (https://www.bbc.co.uk/news/uk-scotland-49920899)**,** and the fall in insect populations in Scotland is especially concerning (https://www.scotsman.com/news/environment/squashed-bugs-on-number-plates-suggests-terrifying-scottish-insect-declines-3680043). Habitat removal as well as climate change are thought to be the main factors contributing to this catastrophic deterioration of nature in Scotland.

Recent policies, plans, and mitigations by governments, regulators and developers have all failed to arrest the decline and need to be more rigorously implemented and monitored. Notwithstanding the importance of generating low carbon energy, it is critical that this is not done at the expense of nature.

The assessment and management plans that the developer has produced do not give confidence that they will conserve, restore, and enhance biodiversity on the site.

The EIA ecological report contains omissions

There are some important omissions which indicate that the existing characteristics of the site are not understood adequately.

Wildcat and invertebrate surveys were not done, and explanations are required for their absence.

- There is no explanation as to why a survey was not undertaken for **wildcat**. Discussion on the likelihood of occurrence of the species should be provided to support the decision not to undertake survey. No records of pure wildcat at or near the site were collected by NatureScot during their Scottish Wildcat Action project 2015 – 2020, however, a record of a wildcat hybrid was collected, and suitable wildcat habitat exists at the Hill of Fare (see

EIAR Technical Appendix 8.2: Protected Species Baseline; Section 8.6 Ecological Baseline Conditions Protected species surveys).

- There is no explanation as to why **invertebrates** were not surveyed. Invertebrate survey is usually only undertaken for an environmental assessment (EA) if potential areas of good invertebrate habitat are identified – if this was not the case it should be stated in the text. We note that the pond identified at EIAR Target Note 6 in Appendix 8.3 and the bog pools in the western end of the site may provide good potential invertebrate habitat, and an explanation is therefore required as to why these were not investigated (see *EIAR Technical Appendix 8.2: Protected Species Baseline; Technical Appendix 8.6: Target Note 6; Section 8.6 Ecological Baseline Conditions Protected species surveys)*.

Potential invertebrate habitats (pond and bog pools) were not investigated, and an explanation is required for this.

- The pond identified at EIAR Target Note 6 in Appendix 8.3 and the bog pools in the western end of the site may provide good potential invertebrate habitat (*EIAR Technical Appendix 8.2: Protected Species Baseline, Technical Appendix 8.6: Target Note 6, Section 8.6 Ecological Baseline Conditions Protected species surveys)***.**

- The pond is not described in EIAR Target Note 6, merely what vegetation was growing around it, despite the text stating that *'A small pond was also recorded at TN6 and as such is described in Appendix A.'*

  There should be a description of its approximate size, whether it appears to be manmade or natural and what macrophyte flora (i.e., emergent, submerged, or floating plants) is present.

  There should also be some attempt to classify the nutrient status of the water (i.e., oligotrophic, mesotrophic, or eutrophic) on the basis of the vegetation present. Water bodies, even small ones, in upland habitats can contain specialist and scarce plants and invertebrate fauna, and this therefore requires further investigation *(EIAR Technical Appendix 8.3: National Vegetation Classification Survey, 3.1.4 Non NVC communities, 3.1.4.3 Watercourses and waterbodies*

Map overlays with proposed site infrastructure are missing. **Such overlays are standard practice in EA and were requested by NatureScot in their response to the project Scoping Report. The absence of overlays makes verification of predicted impacts on habitats difficult and the following amended maps should be issued:**

- Protected Species results maps (see *EIAR Technical Appendix 8.2: Protected Species Baseline, Fig. 1 Protected species results)*.

- National Vegetation Classification (NVC), Phase 1 Habitat survey results and potential GWDTEs maps (see *EIAR Technical Appendix 8.3, National Vegetation Classification Survey, Section 3.0 Results, Figures 2, 3, and 4 in Appendix A; Chapter 8, Figures 8.3 and 8.4).*

The EIA ecological report contains misidentifications and errors

Several of the NVC plant communities in the survey appear to be misidentified (being normally found only in the south of the UK). This suggests that the surveyor used was either inexperienced, or England based and not familiar with Scottish upland ecology.

- **M21 mire** has a very southern distribution in the UK and would not be expected to be found in the northeast of Scotland. The community identified in the survey may therefore be a hybrid of another community type such as M18. Conversely, if it is M21, this is a rare community in Scotland and should be acknowledged and evaluated as such in the

text. Identification of this community without qualification would suggest lack of familiarity with Scottish upland vegetation communities by the surveyor or inexperience in interpreting NVC results (*EIAR Technical Appendix 8.3: National Vegetation Classification Survey, 3.1 National Vegetation Classification, 3.1.1 Mires and flushes, 3.1.1.3 M21 Narthecium ossifragum – Sphagnum papillosum valley mire; Chapter 8, Table 8.4 and accompanying Habitat descriptions, paragraphs 8.6.23 and 8.6.24)*

- All **H9 dry heath**, including H9d, has a southern distribution in the UK where it is very scattered in the Southern Pennines and Midland Plain and would not be expected to be found in the northeast of Scotland. It may be that the area has been sufficiently burnt for a H9-H12 hybrid to develop here, but this should be either qualified in the text or the scarcity and therefore high value of the community acknowledged. Again, absence of either suggests lack of familiarity with Scottish upland vegetation or inexperience in interpreting NVC results, *(EIAR Technical Appendix 8.3: National Vegetation Classification Survey, 3.1 National Vegetation Classification, 3.1.2 Dry heaths, 3.1.2.1 H9 Calluna vulgaris-Deschampsia flexuosa heath; Chapter 8, Table 8.4 and accompanying Habitat descriptions, paragraphs 8.6.26 and 8.6.28)*
- *'The Site drains northwards and is not located within the Dee watershed' (EIAR Para 8.7.7, Chapter 8, Main ecological assessment, Section 8.7, Assessment of potential effects).* This is an error - the **site also drains southwards** and is located in the Dee watershed.

The spatial scale should be re-examined

- **The spatial scale of the site values should be re-examined – the size difference between 'Local' and 'Regional' value is too great and leads to undervaluation of some species and habitats**. 'Local' value is defined as within 2 km of the site, while 'Regional' value is based on the county area. As Aberdeenshire is a large county, this runs the risk of downgrading the value of less than regionally important habitats. This is discussed further below in relation to valuation of bog habitat, *(EIAR Chapter 8, Table 8.2, The Geographical Evaluation Criteria)*.

Some species and habitats have been under-valued and/or scoped out in error

Some species and habitats values have been defined as 'Less than Local' or 'Local', underestimating their value, and some have been scoped out without assessment.

'Less than Local' value is defined as 'unremarkable, common and widespread habitats and species of little/no intrinsic nature conservation value', e.g., common, widespread, agricultural and/or exotic species, such as escapees. Taking these criteria into account, it is assessed that the following habitats and species are probably undervalued.

- The value of the **otter and pine marten** populations has been defined as 'Less than Local' (*EIAR Chapter 8, Table 8.5, Species evaluation summary).* This needs to be re-examined. The local populations of either species cannot be described as having little/no intrinsic conservation value. Although breeding dens of otter and pine marten were not found within the study area, it is highly likely that signs recorded were made by animals that are part of respective breeding populations within 2 km of the site, particularly so for pine marten. This would make their status 'Local' and not 'Less than Local'.
- **M4 - Carex rostrata – Sphagnum recurvum mire** has been identified as 'Less than Local' value (*EIAR Chapter 8, Table 8.6, Habitat evaluation summary)***.** On the basis of the criteria given (little/no intrinsic nature conservation value), this is incorrect. Although the area of M4 community identified is relatively small and at the time of survey had dried out, account needs to be taken of a number of factors including:

- the community was dried out at time of survey after a very hot and dry June - the community is likely to be wetter at other times, and this is indicated by the species recorded. A number of small bog pools are known to occur in this area of the site, and it is assumed that these comprise the area identified as M4 in this survey (if this assumption is wrong, then the bog pools were missed in the survey).
- the naturally relatively small size and scarcity of the M4 community within bog ecosystems.
- the often-greater biodiversity of M4 communities compared to the associated blanket bog system, particularly when bog pools are present (which could potentially support scarce invertebrate species).
- the relative scarcity of the community in the geographic location - upland peat bog habitat in central Aberdeenshire is relatively scarce. Many of the hills further west support heath rather than bog due to their topography (steep slopes and lack of high plateau), while the much of the upland peatland on the Mounth hills south of Deeside between Glen Dye and Netherley is forested**.** Furthermore, the Hill of Fare is an outlier of upland habitat in an otherwise mainly lowland, agricultural area, which gives it an intrinsic value arising from its local habitat scarcity and biogeographical isolation which results in greater habitat fragility.

- The **M4 mire and associated bog pools** should not be scoped out of the assessment for reasons previously discussed about the valuation, without a proper evaluation of the community it is impossible to assess potential impacts. Furthermore, it is indicated that a very small part of the community will be lost *(EIAR Chapter 8, Ecological assessment, Para 8.7.20),* which suggests that site infrastructure will be located right on the margins of the mire, which is extremely sensitive to indirect impacts such as surface water runoff that might not be avoidable even with best practice.
- **M19 Calluna vulgaris – Eriophorum vaginatum blanket mire** community has been identified as being of 'Local' value (*EIAR Chapter 8, Table 8.6, Habitat evaluation summary).* However, as the areal criteria for 'Local' value is 'within 2km of the site', this is an undervaluation for the following reasons:
    - The relative scarcity of upland peat bog habitat in central Aberdeenshire and its relatively isolated location on the Hill of Fare, as discussed above, are likely to result in a value within an area significantly greater than 2km from the site.
    - Furthermore, on Scotland's Environment Web peatland map (a multi-agency resource managed by the Scottish Environment Protection Agency (SEPA)), the deep peat on the Hill of Fare is classified as Class 1. On a national basis, this class comprises 'Nationally important carbon-rich soils, deep peat and priority peatland habitat. Areas likely to be of high conservation value'.
    - These points suggest that either the size of area (2 km) designated to 'Local' value is too small, or there should be an intermediate value 'between Local and Regional'
- **M21 Narthecium ossifragum – Sphagnum papillosum valley mire** is identified as 'Local' value (*EIAR Chapter 8, Table 8.6, Habitat evaluation summary)*. As previously discussed, M21 is a rare NVC community in Scotland. If after review, the community is still considered to be M21 rather than modified M18, its value should be reassessed.
- **G1.1 Pond** The pond is valued as 'Less than Local' (*EIAR Chapter 8, Table 8.6, Habitat evaluation summary)*. However, without a macrophyte and an invertebrate survey of the habitat, it is possible that the feature has been undervalued, particularly in view of the

propensity for upland pools to support scarce aquatic invertebrates. The Pond cannot be scoped out until it is properly investigated, see above *(EIAR Chapter 8, Ecological assessment, Para 8.7.24).*

- The value assigned to the **blanket bog habitat** differs between the Nature Conservation Value column ('Local') and the Comments ('Regional') in *EIAR Table 8.7, Chapter 8, Section 8.7, Assessment of potential effects.* It is unclear if the magnitude of impact on blanket bog has been assessed on the basis of 'Local' value or 'Regional' value, particularly in view of the following sentence '*When considering the likely direct loss (0.59 ha) and indirect habitat losses (2.30 ha) the magnitude of impact within* ***a regional*** *context is considered to be low extent and permanent' (Para 8.7.44).*

- Freshwater habitats in the form of watercourses have been scoped out of the assessment on the basis of Best Practice Techniques for surface water treatment (*EIAR Para 8.7.4 Project assumptions*). However, review of Chapter 10 Hydrology (given elsewhere) has shown that not enough cognisance has been given to the jointed nature of the igneous rock that the Hill of Fare comprises, which could allow untreated surface water to percolate downwards through the rock. In these circumstances, it is very difficult to effectively monitor where such contaminated water will emerge, and watercourse pollution cannot be discounted.

In view of the need to reassess several species and habitat valuations, there is a likelihood that some significance of effects is assessed as too low, and reassessment of respective impacts therefore needs to be undertaken.

The recommendation for an Ecological Clerk of Works is insufficient*'The Developer will appoint a suitably qualified Ecological Clerk of Works (ECoW) prior to the commencement of any construction activities taking place' (EIAR Chapter 8, Section 8.7, Assessment of potential effects, Para 8.7.4 and Good Practice Mitigation, 8.8.3).* The appointment of an ECoW on such a development site would not be sufficient – an Environmental Clerk of Works (EnCoW), who could oversee surface water mitigation and other environmental engineering works, as well as the ecological mitigation, is required.

The Outline Biodiversity Enhancement and Management Plan (OBEMP) plan is too vague

The Outline Biodiversity Enhancement and Management Plan does not provide enough detail to allow prediction with a high degree of confidence that residual beneficial effects will result (*EIAR Sections 8.9 Assessment of Residual Effects and 8.10 Assessment of Cumulative Effects*)**. Conversely, some of the information provided is incorrect.**

The proposed management measures are very generic for heath, bog and deer management and are not based on specific habitat conditions identified on the ground or on discussions with the landowners/ managers as to what is possible or acceptable to them. Nor is there any identification of who is to carry out the work, some of which proposed is quite specialist.

While the level of detail provided for the OBEMP is generally sufficient to have met requirements previously expected for mitigation in EA prior to the National Planning Framework (NPF) 4 (Scottish Government, 2023), it is not adequate to meet the new standard. NPF4 stipulates that 'Larger scale developments will only be supported **if it can be demonstrated** that the proposal will conserve, restore and enhance biodiversity, including nature networks so they are in a demonstrably better state than without intervention.' The OBEMP does not demonstrate this due to lack of sufficient or incorrect detail, as follows;

- **Blanket bog and peat management** *(EIAR Technical Appendix 8.5, Section 2.2.1.1)* It appears that a generic list of possible bog restoration techniques is presented rather than identification of techniques that are most likely to work at the site-specific level. To assess

the magnitude of benefit of bog restoration with a high degree of confidence, further information is required on the approximate size of areas where these measures have a high likelihood of being successful, for which more information is required about the habitat condition.

- This is particularly true for **ditch blocking**, the success of which can depend on a number of factors, as mentioned in the text. For example, where ditches are cut to mineral rock, blocking is often ineffective. Ditch blocking work has already been undertaken on the site as part of a NatureScot Peatland ACTION grant and it is likely that this has already been carried out on the most optimal areas for blocking (which might suggest that remaining areas are less than optimal). Despite this, further work is still required however – '*Despite the work undertaken relatively recently, there remain some signs indicative of dewatering and degradation that would benefit from further follow-up measures*.' To assess the magnitude of benefit further ditch blocking might bring to the site, more information is required on the approximate area where this is likely to be successful and where further work is required on existing blocked areas.
- The existence of **bare peat and peat workings** is mentioned in the text, but no indication of the approximate extent of these features is given, so it is difficult to identify the magnitude of benefit arising from their restoration. Former peat workings can require a different approach to restoration of bare peat formed through erosion, as the former is usually missing the acrotelm (top fibrous layer) with the exposed surface peat supporting a hydroponic layer (i.e., is no longer water absorbent). This makes restoration more challenging, requiring techniques in addition to those used for bare peat formed through erosion, however, there is no mention of this in the text.
- Detail should also be provided as to who will undertake the work – restoration is usually most successful when specialist contractors are used. It would be useful to know if the existing ditch blocking was undertaken by contractor or estate staff.

Without this information the assertion in the main chapter (EIAR Para 8.8.7) that the OBEMP '*outlines measures to be implemented to restore an area of up to approximately 72.9 ha of blanket bog, expanding the habitat by an estimated 29.16 ha at least to achieve a significant gain in habitat condition and biodiversity across what is currently heavily degraded and modified bog'* cannot be substantiated.

- The following text is provided for describing the proposed location of **dry heath management** *(EIAR Technical Appendix 8.5, Section 2.2.1.2) 'Due to the coverage of heathland and dry heath and the current management practices undertaken by landowners within the Site in relation to the heathland, specific locations for any recommendations within this management plan will not necessarily be required'*. It is not at all clear what this means. What are the current practices undertaken? There should be at least some information provided about where cutting and swiping might be focused, the approximate area to be cut annually and rotation intervals. This lack of information gives the impression that the landowners and managers have not been properly consulted about proposed management to ensure that what is proposed in principle is acceptable to them and practicable to implement.

  The text goes on to further say '*If low impact management practices cannot be implemented, then areas will need to be selected following consultation with landowners in order to introduce more intensive deer management efforts through the proposed deer management plan'*. It should be established at this point if low impact management practices CAN be implemented, and more detail provided about the nature of 'more

intensive deer management efforts' – it is not clear what this means and how this could be substituted for low impact dry heath management practices. Without this information it is impossible to predict with a high degree of confidence that beneficial residual effects will occur.

- Some detail about the **Deer Management Plan** should be provided at this stage as the bog, dry heath and riparian tree planting management proposals are largely dependent on it. It should include deer management during the Construction Phase, when deer temporarily displaced from the wind farm site due to disturbance are likely to utilise accessible areas of adjacent woodland more heavily.

  It is important the Outline Deer Management Plan provides an approximation of resources required for implementation and that Landowner/ manager commitment to this is confirmed.

  The lack of any information about the Deer Management Plan again gives the impression that the landowners and managers have not been properly consulted about the proposed management to ensure that what is proposed is acceptable to them and practicable to implement. This makes it impossible to predict with a high degree of confidence that beneficial residual effects will occur.

- Some of the information provided about the **Bracken Management Plan** is incorrect. The following text is provided for describing the proposed bracken management *(EIAR Technical Appendix 8.5, Section 2.2.3.1) 'Primary methods of bracken control including cutting/strimming, pulling and rolling of bracken stands during specific growth periods, to reduce photosynthesis, will be undertaken intensively a minimum of three times during the year. This method would possibly be more effective alongside secondary methods such as overwintering livestock to poach the remaining stands and break up the underground rhizomes, however if this is not possible then primary methods may need to be implemented over more than one year in succession to prove effective'*.

  In the absence of Asolux (which is now banned from use in the UK), primary methods of bracken control will be required to be undertaken for more than one year even with overwintering stock, as it takes several years to eradicate bracken without use of herbicide.

  Without liming and/or cultivation (neither of which are appropriate on the site), it is often impossible to completely eradicate bracken as the underground rhizomes can persist in the ground. Further control will therefore probably need to be undertaken in future years and monitoring will need to be undertaken to identify this need. Information about proposed monitoring is lacking.

  Furthermore, *EIAR Technical Appendix 8.5, Section 2.2.3.2* states that *'Other areas of bracken to be prioritised for management include areas within the proposed peat/bog management area, which will further benefit the habitats and biodiversity of the area, preventing bracken proliferation which would hinder the maturation and establishment of key bog species, preventing photosynthesis below the bracken canopy*'.

  Bracken requires well drained soils, generally growing on brown earths, and does not spread onto peaty soil or peat unless the peat is very broken down and oxidised. Efforts would best be focussed on existing areas of bracken where a fine-leaved acidic grassland might establish after bracken eradication, and on areas where bracken is identified as spreading onto dry heath.

- **No information on monitoring is provided in the OBEMP, which is a major omission.** Brief mention is given in the main Ecology Chapter stating that systematic vegetation and

some substrate monitoring will be undertaken, but this is not adequate for the prediction of residual beneficial impacts to be made with a high degree of confidence. **The success of the proposed management will depend to a large degree on sufficient monitoring.**

The EIA ecological report contains text errors

There are a number of text mistakes, as follows:

- *Technical Appendix 8.6, Ecological Desk Study, Section 5, Appendix A, Point 5.1, 2nd paragraph* cites 'Natural England' instead of 'NatureScot'
- *Technical Appendix 8.6, Ecological Desk Study, Section 5, Appendix A Title of Point 6.4* should be Aberdeenshire Local development Plan and not Aberdeen Local Development Plan
- *Technical Appendix 8.6, Ecological Desk Study, Section 6, Appendix B, Point 6.5.3. Freshwater Habitats* should also include pond habitat, which was identified in the Phase 1 Habitat Survey (see below)
- *Main Chapter 8, Ecology Assessment*, the hyperlink to Map 8.26, 'Bat survey results, soprano pipistrelle' links to the NVC map in error
- *Technical Appendix 8.3, National Vegetation Classification Survey Appendix B, Plant species list*: In some cases, this does not use the most up to date plant nomenclature for the scientific names
- Table 8.6 *(Chapter 8, Habitat evaluation summary)* has omitted to state that the dry heath and blanket bog communities are Annex 1 habitats under the Habitats Directive.
- *Main Chapter 8, Ecology Assessment, 8.7.17:* Cut and paste error 2nd sentence – 'red squirrel' should read 'pine marten'.
- *Main Chapter 8, Ecology Assessment, 8.7.7: 'River Dee SAC has been scoped out of this assessment due to its designation for freshwater pearl mussels, salmon and otters and its distance of 4.9 km from the Site. The SAC is separated from the Site by woodland and agricultural habitats.'* The first sentence doesn't make sense.
- *Main Chapter 8, Ecology Assessment, 8.*7.7: '*The Site drains northwards and is not located within the Dee watershed'.* The site also drains southwards and is located in the Dee watershed.

8. OBJECTION TO RES EIAR CHAPTER 10 – HYDROLOGY, GEOLOGY & HYDROGEOLOGICAL ASSESSMENT

Objections relating to 'EIAR Chapter 10 – hydrology, geology, hydrogeological assessment' are related to **NPF4 Policies 11, 22 and 23**.

POLICY 11: Energy (contravenes Policy 11e(viii))

> **Policy 11e(viii)** states "Project design and mitigation will demonstrate how the following impacts are addressed …effects on hydrology, the water environment and flood risk".

POLICY 22: Flood risk and water management (contravenes Policy 22c(i))

> **Policy 22c** states that "Development proposals will not (i) increase the risk of surface water flooding to others, or itself be at risk".

POLICY 23: Health and Safety (contravenes Policy 23b)

> **Policy 23b** states that "Development proposals which are likely to have a significant adverse effect on health will not be supported. A Health Impact Assessment may be required."

Summary

We object to the proposal on the basis that

- There is a significant risk that private water supplies, relied on by about 150 homes, businesses, and farms (200-300 people) will be impacted by activities related to this development, in particular:
    - long term reliability of water flow may be damaged due to construction activity including blasting
    - pollution of water due to disturbed soils and muds, radon from Uranium in the Hill and shedding of Bisphenol A from turbine blades
- The developer does not appear to have considered the presence of radioactivity in the granite on the Hill of Fare, nor have they carried out radiological impact assessments to determine the extent to which the development could have a detrimental impact on the health of local residents and contractors involved in the work.
- No assessment has been made of the risk of pollution of private water supplies by microplastics during the long lifetime of this windfarm, and assessments of other possible sources of pollution are inadequate.
- The risk of flooding has not been assessed.
- The risk to residents' health due to pollution of private water supplies has not been addressed.

Introduction

There are about 150 homes, businesses, and farms (200-300 people) who rely on private water supplies from the Hill of Fare and the developer has not demonstrated if, nor how these private water supplies will be safeguarded.

The removal of the peat/soil overburden and the blasting and crushing of rock required for the construction of the windfarm creates a significant risk to the flow and a risk of pollution of the groundwater that feeds these private water supplies.

Scottish Water has indicated that this area falls under a Drinking Water Protected Area, so it's essential that drinking water quality & quantity are protected with additional actions required from RES.

Private water supply reliability

The Hill of Fare rocks only contain water in cracks and fissures between the rock masses. In times of extended drought some of the springs and wells emanating from the Hill of Fare are prone to running low. Continuity of recharge water into the cracks and fissures is dependent on the trees, grasses, soils, sands, and peat (overburden) acting as a massive sponge and allowing water to drain into the cracks and fissures slowly. This sponge also effectively acts as a filter removing impurities naturally.

During the enabling works and construction phases, site roads, laydown areas, crane pads and hard standings will use the naturally occurring rock on site – taken from borrow pits. Blasting or rock breaking in order to produce this material may result in the opening up and widening of existing joints in the granite intrusion, or these activities may increase the numbers of fissures. These fissures will be conduits for any dirty water produced during the construction phase, in particular during the rock breaking or blasting operations themselves – unless the borrow pit has no standing water on its floor.

Following a blasting or rock breaking, if the rock produced blankets the ground (several hundred tones or more), it will mask what is going on at the 'new' ground level and make monitoring of surface water impossible.

Significant heavy plant movements will inevitably grind/mill formed road, turbine base material into fines etc. In times of rainfall, it is essential that any contaminated road run off is carefully managed in order to prevent silt laden water finding its way into rock fissures as this could contaminate private water supplies. Fissures can run very deep and unless there is certainty that there is no connectivity between the Hill of Fare Granite and other aquifers in use, then there is always a risk of contamination. It appears that this has not been demonstrated.

The present water courses, wells, and springs (private water supplies) that supply homes, farms and businesses have been established over eons of time, they are robust and most importantly reliable.

The probability of some if not all the traditionally established private water supplies being disturbed must be high given the civil engineering works proposed to construct the wind farm.

We object based on the risk of damaging water flow to private water supplies.

Private water supply pollution - Uranium/radon

This risk is exacerbated because the Hill of Fare rock contains substantial deposits of **uranium ore** potentially leading to poisoning of these water supplies with a heavy metal with known toxicological risks (both chemical and radioactive). The Hill of Fare has previously been the subject of proposals to develop a geothermal heat project (Scottish Government Report 2016) and a uranium mine (late 1970s) due to the unique geological properties. The rock throughout the Banchory district belongs to the Dalriadan Supergroup – 'a thick sequence of metamorphosed mudstones and sandstones. Within this are found intrusions of cooled magma, which have formed crystalline granite bodies of leucogranite, and microgranite known as the 'Caledonian Supersuite'. These granites have long been known to host high concentrations of radioactive elements, including uranium and radon. Radon released from rocks and soils is quickly diluted in the atmosphere so that concentrations in the open air are normally low. However, radon that enters buildings, caves, mines, and tunnels can reach high concentrations in some circumstances (Sceib et al., nora.nerc.ac.uk). Once radon is released

from minerals, for example by drilling or blasting, its migration to the surface is controlled by the transmission characteristics of the bedrock and soil, and the nature of the carrier fluids, including CO_2 and groundwater, leading to the potential for contamination of private water supplies derived from the Hill of Fare.

The UK Health Security Agency publishes reports containing radon Affected Area maps (ukradon.org). These maps (see Figures 8.1 and 8.2 below) show that the Hill of Fare has a maximum radon potential of >30%, **the maximum reported in Scotland as well as for any region of the UK.** The Hill of Fare is the dark red area located N of Banchory in Figure 8.2.

Figure 8.1: Overall map of radon potential in Scotland (ukradon.org)

Figure 8.2: Radon map in Moray and N Aberdeenshire (ukradon.org). The Hill of Fare is the dark red area N of Banchory

We object to the proposed development as the developer does not appear to have considered the presence of radioactivity in the granite on the Hill of Fare, nor have they carried out radiological impact assessments to determine the extent to which the development could have a detrimental impact on the health of local residents and contractors involved in the work.

Private water supply pollution – Microplastics and other pollutants

There is increasing evidence that the shedding of microplastics in the blade coating, including Bisphenol A with known health risks, can lead to pollution of water sources. The Hill of Fare is a pristine environment, however, after 50 years of power generation there will be particulate BPA distributed across the site due to the leading-edge blade degradation and erosion. It is highly likely this will enter the water environment and thus pollute both private and potentially public water supplies.

The developer's investigation of these risks, and plans to monitor and mitigate them, are wholly inadequate, and therefore have not met the policy requirements. If water supplies are impacted the law in Scotland would require the individual to take the matter to the Scottish Courts to seek redress. This step is likely to be prohibitively expensive and take years to complete, so this issue is of enormous concern to all involved.

There is also the risk of pollution from oil, fuel, batteries, site vehicle use and storage during construction. It is not clear how this will be remedied should a spill occur, although we understand that the developer will produce a CEMP as a condition of consent.

We object on the basis that no assessment has been made of the risk of pollution of private water supplies by microplastics during the long lifetime of this windfarm, and that assessments of other possible sources of pollution are inadequate.

Flooding

Recent storms in the area have resulted in significant precipitation of water, leading to widespread flooding. Disturbance of the natural drainage patterns on the Hill of Fare may lead to unforeseen flooding and accumulations of water.

We object on the basis that the assessment of flood risk has been wholly inadequate given the changes in climate already observed and forecast to come.

Residents' health

We object on the basis that the health risks to residents who are dependent on private water supplies from the Hill of Fare from interruption, pollution and contamination of uranium, radon, and other toxic substances including Bisphenol A plastics have not been addressed.

9. OBJECTION TO RES EIAR CHAPTER 11 – ACCESS TRAFFIC AND TRANSPORT

Objections to 'EIAR Chapter 11 – Access traffic and transport' are related to **NPF4 Policy 11**.

POLICY 11: Energy (contravenes policy 11e(vi))

> **Policy 11e(vi)** states that "project design and mitigation will demonstrate how the following impacts are addressed (vi) impacts on road traffic and on adjacent trunk roads, including during construction."

Summary

We object to the proposal on the basis that

- The routing assessment takes no consideration of the significant and adverse community impacts, is unrealistic in its duration and does not offer any mitigation as a result of community consultation.
- RES claims an operational life for the development of 50 years though the usual lifespan of turbines is a maximum of 25 years. At some point therefore, the whole process will not only have to repeated but the road network will also have to cope with the removal of the currently proposed turbines. This only increases the impact on the area.
- The route chosen conflicts with the listed building the Manse of Echt and no mitigation is presented for that conflict

Introduction

The application in EIAR Chapter 11 presents the access, traffic, and transport assessment for this project. The primary chosen route is from Aberdeen South Harbour, along Hareness road and onto the A90. Following the AWPR to the Westhill junction it will travel west along the A944 towards Alford taking a left turn onto the B977 towards Echt. It will then travel to the construction site, then access a newly constructed road onto the construction site, or as required proceed to the B9125, turning left to Birchmoss depot for storage.

Each of the major loads will be some 80m from tip of the vehicle to the end of the turbine blade carried in a horizontal manner. The maximum width of the load is 4.8m.

The usual single carriageway road widths are 3.7m for standard size of HGV.

RES recognises the abnormal load requirements and states it will "work with" Aberdeenshire Council, Transport Scotland and Police Scotland to mitigate any disruption. The roads obstructions will be rebuilt to enable these loads to be transported. Rear wheel steering will be used where necessary; however, road obstructions will still occur, and adaptions required.

The adaptions proposed are

1. to reconfigure the roundabouts for a load to be driven straight across, which occurs for three roundabouts on the A944 in Westhill
2. to reconfigure the verges to accommodate the oversail of the between wheel loads at A956 to A90/A944 junction, the left turn onto the B977; travel through Echt will need oversail permission onto Third Party land which in places impacts a listed building with wall and gate piers at Manse of Echt, a small bridge on the edge of Echt, plus numerous mature trees in the village.
3. The bridge over the railway line on the coast road will require reconfiguration in order that the loads can cross.

The project requires 128 abnormal loads which are estimated to take 4 months to deliver.

The construction traffic management plan (CTMP), prepared in agreement with each road authority, will include a package of measures to ensure that HGV traffic does not cause undue disruption to other road users. This will include routing agreements and confirmation of times of operation and delivery schedules.

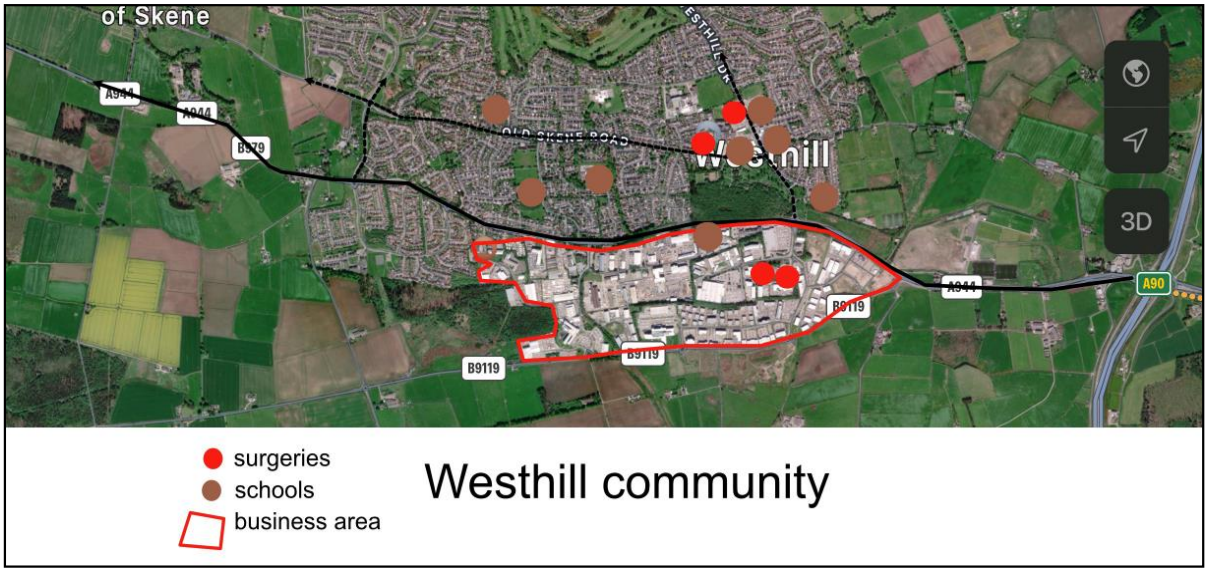

Figure 9.1: Westhill layout

Impact of transport on local communities

1. Figure 9.1 is a map showing the layout of Westhill and its division of business, residential, schools and medical facilities. The A944 splits them and of particular interest to residents are the medical facilities.
2. The business area represents over 400 companies of which the largest 11 turnover nearly £500million.
3. The residential area had an electorate of 12,110 in 2020. This project will create significant disruption to the regular lives and connections of the communities.

NPF4 part 1 in dealing with the spatial principles guide for local living, supports local liveability and improved community health and wellbeing by ensuring people can easily access services, greenspace, learning, work, and leisure locally.

The four months envisaged for the heavy loads makes no acknowledgment of the realistic use of the loading constraints at the harbour in consideration of other users of that facility.

The desktop traffic routing exercise is expecting that the south harbour development includes a rerouting of the bridge over the rail line to accommodate the windfarm development loads.

To a lay person these assumptions associated with the CTMP seem unrealistic and the unevaluated disruption to local communities should not be accepted and the application rejected.

We object on the basis that the RES EIAR Chapter 11 routing assessment takes no consideration of the community effects, is unrealistic in its duration and does not offer any mitigation as a result of community consultation.

Impact of long life of windfarm

RES claims an operational life for the development of 50 years though the usual lifespan of turbines is a maximum of 25 years. At some point therefore, the whole process will not only have to repeated but the road network will also have to cope with the removal of the currently proposed turbines. This only increases the impact on the area.

Listed buildings

The RES EIAR Chapter 5 of the application states:

5.6.22 We (RES) will protect all listed buildings contained on the statutory list of Buildings of Special Architectural or Historic Interest for Aberdeenshire, all scheduled monuments contained on the statutory schedule of Monuments for Aberdeenshire and undesignated archaeological sites in Aberdeenshire. We will encourage their protection, maintenance, enhancement, and appropriate active use and conservation.

We object on the basis that the route chosen conflicts with the listed building the Manse of Echt and no mitigation is presented for that conflict.

Conclusions

This proposed route will have a significant impact on local communities and may affect a listed building. The development should be refused.

10. OBJECTION TO RES EIAR CHAPTER 12 – ACOUSTIC ASSESSMENT

Objections relating to 'EIAR Chapter 12 – acoustic assessment' are related to **NPF4 Policies 11 and 23**.

POLICY 11: Energy (contravenes Policy 11e(i))

> **Policy 11e(i)** states that "Project design and mitigation will demonstrate how the following impacts are addressed …impacts on communities and individual dwellings, including…noise…"

POLICY 23: Health and Safety (contravenes Policies 23b, 23e)

> **Policy 23b** states that "Development proposals which are likely to have a significant adverse effect on health will not be supported. A Health Impact Assessment may be required."
>
> **Policy 23e** states that "Development proposals that are likely to raise unacceptable noise issues will not be supported. The agent of change principle applies to noise sensitive development. A Noise Impact Assessment may be required where the nature of the proposal or its location suggests that significant effects are likely."

Summary

We object to the proposal on the basis that

- The impact of noise (especially amplitude modulation (AM)) has not been adequately assessed, using guidance that is discredited, out of date, and based on turbines that were significantly smaller. The impact of noise is likely to be excessive, adverse, and seriously disturbing.
- The proposed planning condition is inequitable.

Noise assessment is not adequate

> The risks to local residents' health due to unacceptable noise, particularly amplitude modulation (AM), has not been adequately addressed. The existing noise guidance (known as ETSU-R-97) was reviewed in 2023. It was concluded that the Guidance is outdated and failed to address AM appropriately. Since the replacement Guidance is yet to be published, the developers are continuing to use the discredited ETSU-R-97 legislation from 25 years ago when turbines were much smaller.
>
> The developer's noise document and its associated technical appendices have several areas that are a cause for concern, namely:
>
> 1. Most of the reference citations in the chapter do not consider the latest research and evidence in several areas.
>
> 1.1. There is no mention of the review of ETSU-R-97 'The Assessment and Rating of Noise from Wind Farms' and subsequent good practice guides, by the independent consultancy WSP – 'A Review of Noise Guidance for Onshore Wind Turbines' released in February 2023. This review indicates that the current noise limits are based on outdated or insubstantial evidence and does not adequately address the adverse effects of Amplitude Modulation (AM), the most intrusive feature of turbine noise, and the use of an excessively high night-time background noise level 43 (dB).
>
> 1.2. In the EIAR Technical Appendix 12.2 they attempt to "scope out" the important considerations of AM, low frequency noise impact and sleep deprivation/night-time noise limits.

For example, in EIAR 12.2, para 1.15.12, their references on AM stop at the year 2016 indicating that the assessment is dated and inadequate. The research paper, conducted around a large windfarm in Australia, in the Journal of Sound and Vibration, 2019, 'Prevalence of wind farm amplitude modulation at long-range residential locations' identifies audible indoor low-frequency tone AM for 16% of the test locations irrespective of power output and this percentage increased at night-time.

In EIAR Paragraph 1.3.13, they reference the WHO Environmental Guidelines for the European Region 2018 in respect of sleep disturbance and ignore the recommendations of the WSP report page 19, that states existing controlling values and guidelines are based on evidence and guidance that is outdated.

2. A further indication of the inadequacy of ETSU-R-97 are the large numbers of nuisance complaints made since its inception. 600 noise related complaints were made between 2010 and 2015 from wind farm operations (Hansard Vol 598, 21 July 2015) and no doubt hundreds more since then (it has proven difficult to obtain data), however, there are several cases of statutory noise nuisance, relating to wind turbines, that have or are being fought in the English and Scottish courts at present, including (currently) one only a few miles from the Hill of Fare.

   This reveals the ineffectiveness of ETSU-R-97 and the planning consent process. In respect to AM, any use of a planning condition is an extremely poor method of control as demonstrated by the problems (complaints) at the Cotton Farm Wind Farm in Cambridgeshire where AM control has been attempted (Independent Noise Working Group 'Wind Turbine Amplitude Modulation & Planning Control Study' 2015).

3. The developer has offered a planning condition for noise in the event of complaint. This is the only topic where they do this and suggests they are anticipating such problems, or why else do it? The suggested draft condition should not be used as the process would take from 3-12 months to arrive at a decision and would not be an independent investigation as it would allow the operator to prepare noise reduction controls for when measurements are conducted. The proposed process is thus inequitable.

4. Some additional reasons why they are expecting complaints include:

   - Growing evidence that the degradation of the leading edge of the blades as they age increases the noise emission characteristics of the turbines,
   - The use of the ground effect factor of 0.5 should not apply when the ground is covered in snow and ice as it will be more reflective.
   - As evidenced in their own background sampling data, there are many times in the day and night where the background levels drop well below 25(dB) and frequently below 20 making any emission more readily audible particularly at night.
   - The development is planning to use two different types of turbines (180m and 200m). This will create two sets of noises, tones and AM issues at the nearby houses and increase the likelihood of annoyance and complaints.
   - As described in the Scottish Government website, noise from "premises" is one of the matters that could constitute a statutory nuisance. The 'matter' must either be a 'prejudice to health' or a nuisance. It may be possible to argue in respect of the effect on mental health (including sleeplessness and there appears to be a growing body of evidence in respect to the effects of low and ultra -low frequency noise on human health.

None of these points, nor the overall 'impact' on the people living in the houses and any specific individual sensitivities, are fully assessed in the document which renders it inadequate.

Following the empirical formulae, as used in the guidance documents, it could be determined how far the turbines would be calculated to be audible at neighbouring properties; that should be the distance where turbines could be built from a sound power level perspective, in addition to any tonal penalty. This does not apply to AM and does not allow the Aberdeenshire council, or the ECU, the ability to calculate, mathematically, if a statutory nuisance could occur.

It could be considered that if you can hear them, especially the AM and tonality, and it annoys you then it is a nuisance and most probably a statutory nuisance. ETSU-R-97 states that developers must consider the interests of individuals as protected under the Environmental Protection Act 1990.

Conclusion

We object to the proposal on the basis that the impact of noise has not been adequately assessed and is likely to be excessive, adverse and seriously disturbing. The development should be refused.

11. OBJECTION TO RES EIAR CHAPTER 13 – SOCIO-ECONOMIC

Objections to 'EIAR Chapter 13 – Socio-economic' are related to **NPF Policies 4, 11, 13, 25, 29, 33, and Aberdeenshire Council's PA 2023-21.**

Summary

We object to the proposal on the basis that:

- There is no evidence to support significant economic benefit in RES' own analysis or elsewhere in the public, business, or academic sectors. **In the absence of any significant economic benefit to outweigh the significant impact of this windfarm, the application must be rejected.**
- Evidence from a freedom of information request in Nov-2023 shows that, in 2022-2023, the Scottish Government received £13,297,204 in rental income from wind farms and single turbines. This amounts to £2.44 per person and shows that this source of income from onshore wind is insignificant on a local and a national scale.
- RES claims that the proposed development *could* create a £150m boost to the local economy. The figures are estimates over 50 years, and RES cannot demonstrate where the funds would be spent, with their own conclusion being that there would be '*not significant*' or '*negligible*' economic benefits to Aberdeenshire and Scotland.
- The RES Transport Plan for turbines and construction traffic will undoubtedly cause major disruption to traffic with a knock-on impact to local businesses. It is also unclear to those with local knowledge how the proposed route will accommodate the large transport vehicles required to move the turbines and blades, without significant changes to the road infrastructure. None of this can be justified in the absence of significant local economic benefits.
- The proposed community benefit is minimal given the high population around the Hill and is not guaranteed.
- There is no evidence that the developer has consulted with any individuals or communities on the Local Electricity Discount Scheme (LEDS) or any other community benefit referred to in section 13.10.
- In terms of rural development and the natural economy, the RES proposed development produces no evidence of long-term, sustainable impacts on the local rural economy.
- The development would overshadow the important tourist routes on the A93, B977, and B9119, the main routes from Aberdeen to Royal Deeside and beyond, with potential for shadow flicker and stroboscopic effects along the routes.
- As the developer's own literature review suggests there is no evidence that a wind farm on this scale would have **no impact** on tourism or the numbers visiting Royal Deeside and the area surrounding the Hill of Fare. There is an inherent risk to the tourism sector in this area that must be recognized, analysed, and mitigated, not least of which is that the Hill of Fare, Dee Valley and surrounding hills would no longer be the popular destination for different kinds of recreation that they currently are.

Introduction

At the outset, it is important to highlight that RES' own socio-economic analyses conclude that:

Construction phase

EIAR 13.6.30 '*Construction is likely to result in* ***temporary minor beneficial*** *and* ***not significant*** *effect on the economy in Aberdeenshire, and a temporary* ***minor beneficial*** *and* ***not significant*** *effect on the economy in Scotland.'*

Operations phase

EIAR 13.6.56 '*The effect of operations and maintenance expenditure on the Aberdeenshire and Scottish economies was assessed as* ***negligible*** *and therefore* ***not significant.'***

These conclusions provide the context for our objections relating to NPF4 policies 4, 11, 13, 25, 29 and 33.

There is no evidence to support significant economic benefit in RES' own analysis or elsewhere in the public, business, or academic sectors

Socioeconomic analyses of the impact of onshore windfarms in Aberdeenshire/NE Scotland were requested from the Aberdeen and Grampian Chamber of Commerce; Aberdeenshire Council; Scottish Government and the Fraser of Allander Institute. All requests confirmed that no such analysis has been conducted with a NE context. Indeed, Aberdeenshire Council referred us to Chapter 13 of the RES application.

The Fraser of Allander (FoA) Economic Impact of Scotland's Renewable Energy Sector – Update 2023, highlights the challenges of acquiring economic data as no 'renewables sector' is defined in the national accounts. FoA constructed the sector using ONS data and estimate output, GVA and employment renewable activities support in the Scottish economy as a whole. However, they highlight that "t*here is significant uncertainty in the underlying ONS survey of renewable activities, particularly at the individual technology level. Our results are therefore accompanied by a moderately large margin of error. Consequently, we caution against overinterpretation of the results in this report.*"

Evidence from a freedom of information request in Nov-2023 shows that, in 2022-2023, the Scottish Government received £13,297,204 in rental income from wind farms and single turbines. This amounts to £2.44 per person and shows that this source of income from onshore wind is insignificant on a local and a national scale.

In the absence of sound analysis or data on the socioeconomic benefits of onshore wind at either local or national level, it is therefore incumbent on RES to carry out detailed analysis on the Hill of Fare development. The absence of evidence of net socioeconomic benefits, therefore, cannot outweigh the negative impacts discussed elsewhere in our Objection Document.

POLICY 4: Natural Places (contravenes policy 4c)

Policy 4c states: "Any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance."

Absence of economic benefits

The adoption of NPF4 led to Aberdeenshire Council publishing its *Landscape Sensitivity Assessment – Onshore Wind Energy Development in Aberdeenshire,* Planning advice PA2023-

03, September 2023, as planning advice to support the 2023 Aberdeenshire Local Development Plan. The Hill of Fare falls into LCT28, Outlying Hills and Ridges. The guidance states that Very Large Turbines (125-200m) *"could significantly diminish the distinctive character of the landscape which is indivisibly linked to its surrounding areas. Turbines of this height and associated infrastructure could be intrusive and potentially impact on the recreational, community and cultural appreciation of the landscape…… This is a high quality, high value landscape, sensitive to erosion of character from wind energy development of all scales beyond a domestic height turbine…and…is highly sensitive to intrusion from turbines, including from adjacent LCTs which would have a strong visual influence on hill settings.*

In the absence of any significant economic benefit to outweigh this assessment, the application must be rejected.

RES claims that the proposed development *could* create a £150m boost to the local economy - £14m during the construction phase, £66m in the operation and maintenance phase, and £50m in Business Rates spread over the proposed lifetime of the windfarm of 50 years.

The figures are estimates. RES cannot demonstrate where the funds would be spent, with their own conclusion being that there would be 'not significant' or negligible economic benefits to Aberdeenshire and Scotland. The Business Rates would not accrue directly to Aberdeenshire Council but would go into a national pot to be distributed to local authorities across Scotland.

RES claim (EIAR 13.6.13) that approximately 169 job years will be created in Aberdeenshire and that 19 FTEs (EIAR 13.6.38) will be created during the operation and maintenance phase. There is no evidence that these would be new jobs, whether those employed would be based locally or, as has been the case in other large infrastructure projects such as the AWPR, brought in from outside the area.

Aberdeenshire is an area of low unemployment (2.4%) and availability of employees with the skills and expertise required is likely to be low. Furthermore, local businesses are mostly small to medium sized enterprises and therefore unlikely to have the capacity and skills to support a development of this scale.

POLICY 11: Energy (contravenes policy 11c)

Policy 11c states: "Development proposals will only be supported where they maximise net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities."

There is no evidence to support significant economic benefit in RES' own analysis or elsewhere in the public, business or academic sectors.

POLICY 13: Sustainable Transport (contravenes policy 13g)

Policy 13g states: "While new junctions on trunk roads are not normally acceptable, the case for a new junction will be considered by Transport Scotland where significant economic or regeneration benefits can be demonstrated."

Local businesses negatively impacted

The RES Transport Plan for turbines and construction traffic identifies a route from Aberdeen (new) Harbour, via the by-pass to Westhill, on to Dunecht and across to Echt and the access road to the east of Hill of Fare. This will undoubtedly cause major disruption to traffic with a knock-on impact to local businesses. It is also unclear to those with local knowledge how the

proposed route will accommodate the large transport vehicles required to move the turbines and blades, without significant changes to the road infrastructure. None of this can be justified in the absence of significant local economic benefits.

POLICY 25: Community Wealth Building (contravenes 25a and 25b)

Policy 25a states: "Development proposals which contribute to local or regional community wealth building strategies and are consistent with local economic priorities will be supported. For example, improving community resilience; reducing inequalities; increasing spending within communities; ensuring use of local supply chains and services; local job creation; supporting community-led proposals, including creation of new local firms; and enabling community-led ownership of buildings and assets.

Policy 25b states: "Development proposals linked to community ownership and management of land will be supported."

Community benefits

RES have produced no evidence of community benefits linked to Policy 25a or b. RES states a community benefit value of £26.4 million over the 50 year lifetime of the project. This is consistent with the minimum £5,000 per year per MW of installed capacity in Scottish Government guidance, (set about 11 years ago) representing £528,000 per year, the true value diminishing over time with inflation. Various estimates of the size of the affected population around the Hill of Fare can be made depending on how wide the line is drawn varying from 11,500 to 45,000. At best the community benefit package amounts to £45 per person per year, a negligible sum and barely offsetting the additional costs of electricity to consumers due to constraint payments to wind farm companies when turbines have to be shut down due to overproduction of wind power and undercapacity of the grid.

No commitments have been given beyond this figure and we understand that there is no mechanism to ensure that RES honour this offering. There is no evidence that they have consulted with any individuals or communities on the Local Electricity Discount Scheme (LEDS) or any other community benefit referred to in EIAR Section 13.10. Indeed, an email to the RES Project Manager resulted in no evidence to support their commitment to these proposed community benefits, including shared ownership.

POLICY 29: Rural Development (contravenes 29a and 29b)

Policy 29a states: "Development proposals that contribute to the viability, sustainability and diversity of rural communities and the local rural economy will be supported."

Policy 29b states: "Development proposals should be suitably scaled and sited to be in keeping with the character of the area."

Rural development

In terms of rural development and the natural economy, the RES proposed development contravenes policy 29a and 29b. They produce no evidence of long-term, sustainable impacts on the local rural economy. The siting and scale of the proposed development is entirely out of character with the character of the area, which borders the Dee Valley Special Landscape Area and the entrance to economically important tourist areas of Royal Deeside and the Cairngorm National Park. The development would overshadow the important tourist routes on the A93, B977, and B9119, the main routes from Aberdeen to Royal Deeside and beyond, with potential for shadow flicker and stroboscopic effects along the routes.

Tourism

EIAR Chapter 13, 13.6.56 onwards considers the impact of the proposed development on tourism. It does so generically and not specifically for the region most impacted, which includes the Dee Valley Special Landscape Area, and the tourist access routes to Royal Deeside and the Cairngorms National Park. The RES analysis also specifically excludes a number of local historic and archaeological features from its analysis elsewhere in the application, such as the Midmar Stone Circle.

RES cites several studies (references xxv – xxxiii) the vast majority of which are significantly out of date, having been published prior to 2014 when wind farms and wind turbines were much smaller. The Scottish Government Committee reports referenced go back to 2008 and 2012.

RES concludes (13.6.86) that "*The effect on tourism is therefore assessed as being **negligible** and therefore **not significant** at both the regional and national levels."*

However, as their own literature review suggests they cannot provide evidence that a wind farm on this scale would have **no impact** on tourism or the numbers visiting Royal Deeside and the area surrounding the Hill of Fare. As mentioned elsewhere, the proposed development will dominate the local landscape, towering over the three main roads (A93, B977 and B9119) for tourists from Aberdeen to Royal Deeside and the Cairngorm National Park. There is an inherent risk that must be recognized, analysed, and mitigated, not least of which is that the Hill of Fare would no longer be the popular destination for recreation that it currently is.

Aberdeenshire Council's PA 2023-21 advises: "*sites should be selected that minimize visual impact from tourist viewpoints, routes and facilities.*

12. OBJECTION TO RES EIAR CHAPTER 14 – AVIATION

Objections to 'EIAR Chapter 14 – Aviation' are related to **NPF4 Policy 11**.

POLICY 11: Energy (contravenes policy 11e(iv))

> **Policy 11e(iv)** states that "In addition, project design and mitigation will demonstrate how the following impacts are assessed: Impacts on aviation and defence interests, including seismological recording".

Summary

We object on the basis that:

- Key consultees (NATS and Aberdeen Airport) have objected to the proposal. The mitigations proposed by the developer have not been identified or agreed yet.
- Aviation lighting is required on several turbines which the developer has assessed will have a 'significant effect' on the night-time sky, removing the special dark sky visible around many parts of the Hill.

Key consultees have objected

The developer has scoped out potential effects during construction and due to decommissioning; it is not clear if this is realistic or not. The developer has however recognised that during operations the presence of this large windfarm may affect aviation due to physical obstruction and radar/air traffic services (ATS). This is because turbines can mask unidentified aircraft from the air traffic controller, and/or prevent them from identifying aircraft under control. Radar reflections from turbines may also affect the performance of the radar itself. No mention is made of weather radar which may also be affected.

The developer made the assessment using a desk top study only, focussing on

- Aberdeen Airport (within 50 km). The windfarm has the potential to impact its Instrument Flight Procedures (IFP) and radar
- Perwinnes radar (25 km away)
- Allanshill radar (62 km away)
- 5 military radars within 100 km, the closest being Air Defence Buchan ca. 56 km away

Although the developer claims to have mitigated potential impacts on the Allanshill radar, and on Aberdeen Airport's 3,200 ft Surveillance Minimum Altitude Area (SMAA). However, discussions are still ongoing with

- NATS related to the impact on the radar at Perwinnes
- Aberdeen Airport related to impact on instrument flight procedure
- Aberdeen Airport related to impact on the 2,800 ft Surveillance Minimum Altitude Area (SMAA) for Aberdeen Airport

We object on the basis that several key consultees have objected to the proposal. The developer proposes to mitigate these issues with 'suitable schemes, secured through a planning condition', but these have not been identified yet, are unclear and not agreed.

Impact on night sky

The Civil Aviation Authority (CAA) and the Defence Infrastructure Organisation (DIO) both require aviation lighting on several turbines. The developer expects these lights to be visible at night more than 5 km away. Depending on the direction of the wind, these will dim and brighten if the turbines are rotating in front of the lights which will increase the visual effect.

No night-time visualisations are included on RES website, so it is difficult to assess independently. Table 6.6 of the EIAR however indicates 'significant' impact at night-time from some locations, and EIAR Chapter 15 gives 'significant residual effects' (i.e., after mitigation) during hours of darkness.

We object that this development will impact the 'dark sky' visible from the around the Hill of Fare, and impacts are expected to be significant.

13. OBJECTION TO RES EIAR CHAPTER 14 – CARBON CALCULATION

Objections relating to 'EIAR Chapter 14 – Carbon calculation' are related to the **Climate Change (Emissions Reduction Targets) (Scotland), 2019**.

Summary

We object on the basis that:

- The assumptions for the carbon payback calculation are incorrect. Using the latest Government data on the fuel mix, and assuming the carbon emission figures calculated by the developer (which we believe to be too low) the development does not pay back the carbon deficit. Overall, it increases carbon emissions and therefore does not contribute to getting to Net Zero.
- Based on discussions with an expert in the field and a literature survey we conclude that windfarms that involve destroying peat should never be built.
- There may be some incorrect assumptions which may increase the carbon emissions due to construction of this windfarm and the ancillary installations.

Introduction

In Appendix 14.1, RES calculates that the development would pay back the carbon deficit created during construction in 2.8 years, using a 'black box' model that assumes constant grid mix with 44% fossil fuel firing.

We have reviewed the inputs and assumptions for these calculations and conclude that they and the conclusions are incorrect.

Carbon payback calculation

Once windfarms are in operation they deliver carbon-free electricity and displace carbon emissions which would otherwise result from energy generation by fossil fuels (usually gas). The 'carbon payback' time is a standard way to estimate how long the wind farm will take to offset the carbon emitted because of its construction and operation.

RES claim a 'carbon payback' time of 2.8 years for this windfarm, assuming the grid mix of 44% fossil fuels remains constant for its 50 year lifetime.

A major flaw tends to make the model overestimate carbon savings – the calculation assumes constant grid mix over development life. The 'black box' model was developed to assess benefits of wind farms in during the 2010s, when grid decarbonisation was in its infancy, with a high proportion of coal fired power. Since 2008, the grid has decarbonised, and will progressively clean up further over coming decades, refer to Figure 13.1 below. By 2023 grid fossil fuel content had fallen to 37%, already less than the constant 44% of fossil fuel assumed by RES.

Figure 1: Electricity generation by fuel source in GB, TWh – Net Zero Lower Demand Scenario without Hydrogen

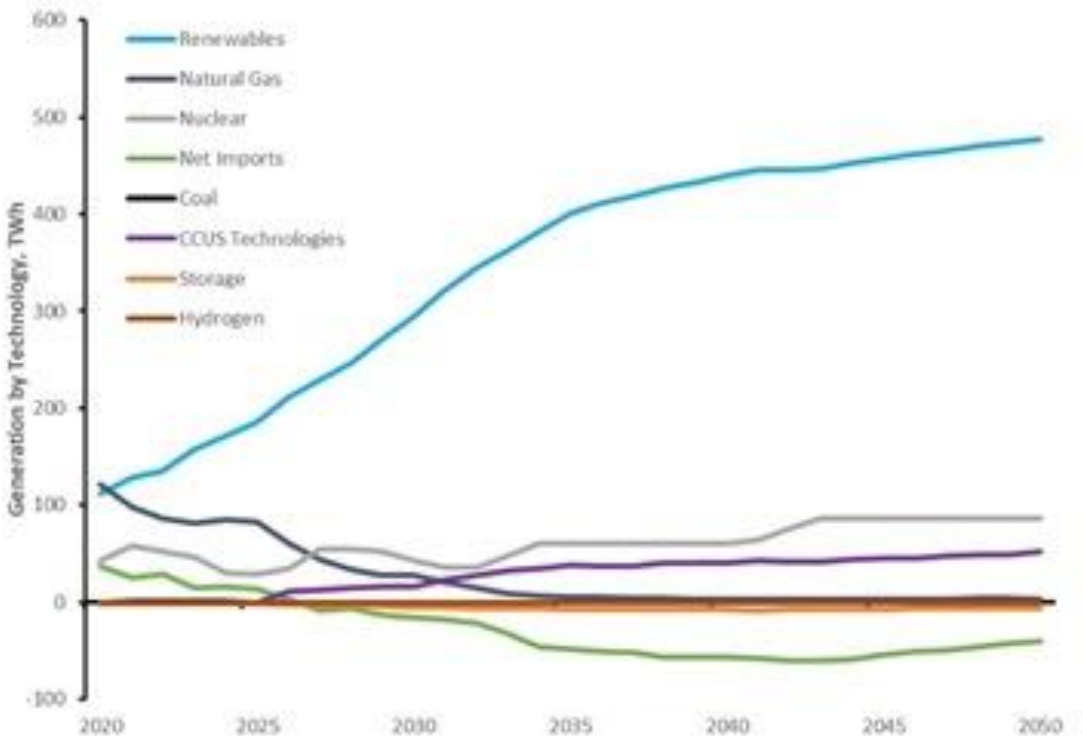

Figure 13.1: UK Grid decarbonisation (BERR Net Zero and the Power Sector Scenarios, Feb 2022 https://assets.publishing.service.gov.uk/media/6225dc108fa8f5490e284e85/annex-o-net_zero-and-the-power-sector-scenarios.pdf)

We believe that representative forecasts of grid fossil fuel content should be used in order to faithfully represent the true carbon savings made by the development and contacted Professor Jo Smith from the School of Biological Sciences at Aberdeen University, who was involved in developing the 'black box' model, to discuss this issue.

The Professor forwarded an academic paper (Smith et al, 2014), which shows that, whereas in 2010, most windfarms built on peatland had potential to provide net carbon savings, by 2040 most will not reduce carbon emissions even with careful management due to projected changes in the proportion of fossil fuels used to generate electricity. Results also suggest that future policy should avoid building windfarms on undegraded peatlands unless drainage of peat is minimal, and the volume excavated can be reduced compared to energy output. Other more recent papers (listed below) reinforce this view.

This confirmed our view that savings should be assessed using grid mix projections.

On our behalf, a professional engineer estimated carbon savings using grid mix projections estimated from UK Gov data (references below):

YEAR	2027	2028	2029	2030	2031	2032	2033	2034	2035+
Grid mix	27%	22%	10%	8%	6%	4%	2%	1%	1%

This work, and our analysis of EIAR Appendix 14.1, endorse the finding that windfarms shouldn't be built on undegraded peatland:

- In all cases, the development doesn't pay back the carbon deficit
- No long-term benefit is gained because the grid is 99% clean by 2034
- Allowing for data uncertainty, payback might be reached (the optimistic but unlikely 2027 start-up case comes close, but as we have seen above, the carbon emission calculations used by RES are likely to be an underestimate). Savings are marginal in the context of the large carbon deficit.
- Similarly, the benefit of peat restoration is marginal in the context of the large carbon deficit.

It might be argued that if new developments such as this don't proceed, the grid will not decarbonise. This is invalid. There are already more new projects in the pipeline to exceed the Scottish onshore target. Also, the UK has a target for 50 GW of offshore wind and new projects are constantly coming on stream. The grid does not require this wind farm in order to decarbonise.

We conclude that this windfarm would increase net carbon emissions and will not contribute to getting to Net Zero.

We have carried out a literature survey (see references below) and conclude that windfarms that involve destroying a lot of peat should never be built.

The latest research from Nottingham Trent University states 'Researchers warn of 'urgent' need to understand impact of windfarms on precious peatlands' https://www.ntu.ac.uk/about-us/news/news-articles/2023/03/researchers-warn-of-urgent-need-to-understand-impact-of-windfarms-on-precious-peatlands?fbclid=IwAR03D1sHOs_dezE0MJ1Lw3tvmI9ppXNhDxeY7AC0kOlUtwmSj6clEtbJGAQ

On this basis, and that of the academic paper, we strongly object to the proposal, which should be refused.

Carbon calculation

From inputs to the model, RES calculates that construction activities would emit 112,000 tonnes of carbon (mainly due to 94,000 tonnes from peat impacts and 18,000 tonnes from tree felling.) 18,000 tonnes of carbon savings due to improvements is assumed, 10 years after construction.

As far as we can see there may be some incorrect assumptions, which may increase the carbon emissions due to construction of this windfarm and ancillary installations:

- The expected carbon content of the peat should be 46% (which is the measured average, EIAR Technical Appendix 10.2), not 42%; this is some 10% higher.
- 17.6 km of access tracks are all assumed to be floating, when in fact only those tracks accessing turbines 7 and 8 are floating (where the peat is >1m deep, EIAR Paragraph 2.4.23, Figure 1.2). All other tracks require removal of soil and crushed rocks and should be included in the carbon calculation.
- Six borrow pits are planned, not five as assumed.
- The depth of hole to be dug when constructing the turbine foundations is assumed to be 0.2m. On EIAR Figures 2.2a and 2.2b the depth is 3.5m, which is significantly larger

- The carbon impacts of constructing the BESS, onsite concrete plant, substation, temporary construction compound and telecommunications mast are not incorporated into the calculations, even though some of these are in areas of shallow and deep peat (EIAR Chapter 2). The 12.45 Ha of forest that is to be felled to make way for the BESS is also not included.

Furthermore, EIAR Paragraph 14.6.26 states that "*were the development not to proceed, these areas (referring to the significant area felled by Storm Arwen, 14.46 Ha) would be replanted with commercial forestry tree species*". It could be argued that this represents a further reduction of carbon sink on the Hill of Fare.

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14. OBJECTION TO RES EIAR CHAPTER 14 – SHADOW FLICKER

Objections to 'EIAR Chapter 14 – shadow flicker' are related to **Aberdeenshire Council Assessing Wind Energy Developments PA 2023-21 and NPF4 Policy 11**.

Aberdeenshire Council Assessing Wind Energy Developments PA 2023-21 states that

- The potential for shadow flicker impacts inside residential properties and next to public roads must be considered. An assessment of the potential harm and nuisance shadow flicker could cause throughout the year should be provided for all dwellings and public roads that could be affected. Where necessary, the Planning Authority may request an assessment of cumulative shadow flicker. The likelihood and duration of shadow flicker will depend on several factors, including the direction of road/house relative to the turbine(s), distance from and size of the turbine(s) (hub-height and rotor diameter), and time of year.

POLICY 11: Energy (contravenes Policy 11e(i))

Policy 11e(i) states that "Project design and mitigation will demonstrate how the following impacts are addressed …impacts on communities and individual dwellings, including…shadow flicker…"

Summary

We object to the proposal on the basis that

- The impact of shadow flicker is likely to be much more significant than assessed by RES with potentially over 300 homes affected
- The mitigations proposed are not realistic.

Shadow flicker

Shadow flicker will be most noticeable in properties lying to the north of the Hill, especially when the sun is low during winter months.

The developer has assessed shadow flicker for properties within 1650m from any turbine, resulting in their estimation that only six properties will be affected.

Due to the prominence of the Hill, we believe that 3 or 4 km is a much more suitable distance to assess. Based on the 2011 census and OS maps we have estimated the number of dwellings in the shadow flicker zone for 3 km (orange line in Figure 14.1) and 4 km (black line in Figure 14.1), which is 78 and 231 respectively. Given that this does not include homes built since 2011 this is likely to be an underestimate. The impact of shadow flicker is likely to be much more significant than assessed by RES.

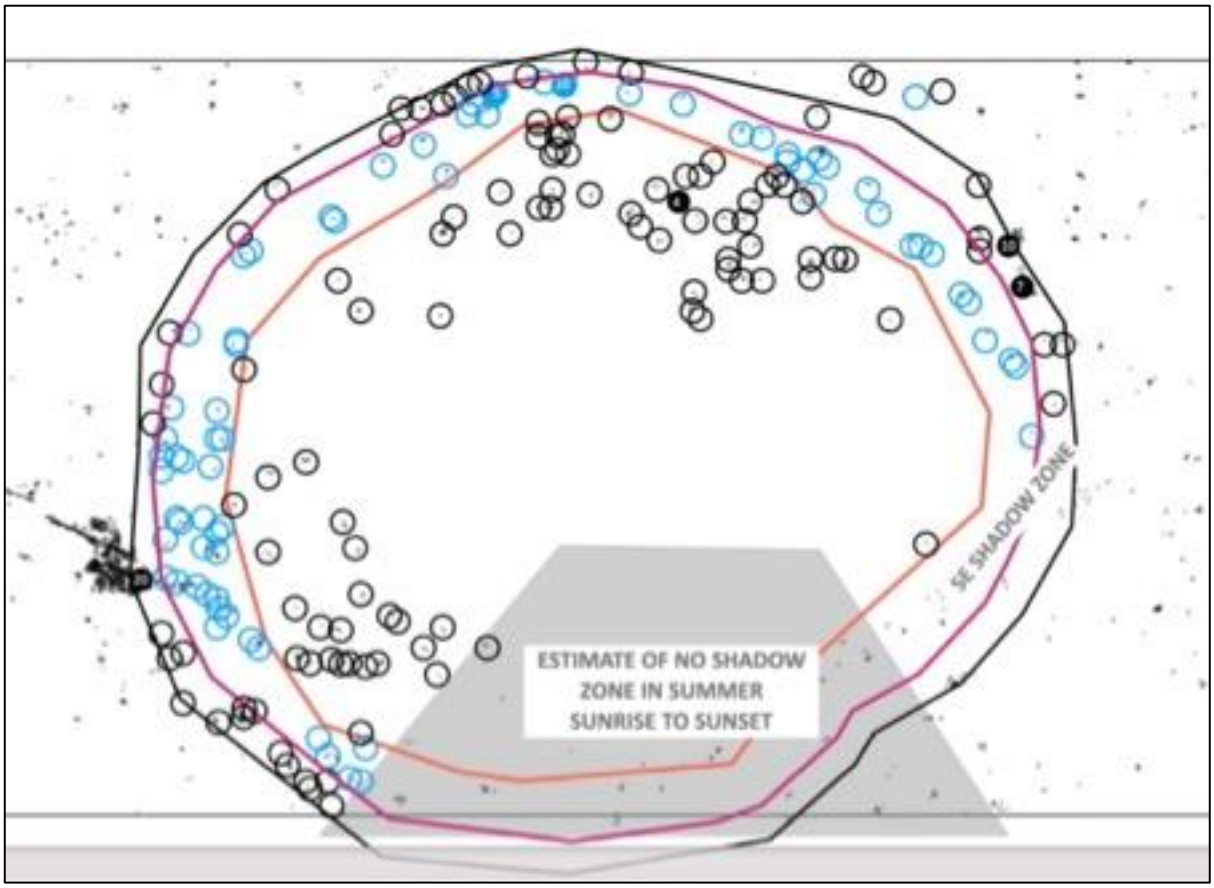

Figure 14.1 Estimate of number of dwellings within 3km (orange line) and 4km (black line) from turbines based on 2011 census and OS map

The mitigation offered is to plant tree belts, but depending on the species chosen, these will be ineffective during winter months and because trees take time to grow. Furthermore, the developer states that affected turbines will be closed in when the effect theoretically occurs; this may involve all turbines as the effect will be visible the length of the Hill. We do not believe this is realistic.

We conclude that the development should be refused.

15. OBJECTION TO RES EIAR CHAPTER 14 – TELEVISION, TELECOMMUNICATION, & MICROWAVE FIXED LINKS

Objections relating to Chapter 14 – Television, telecommunication, and microwave fixed links – are related to **NPF4 Policy 11**.

POLICY 11: Energy (contravenes policy 11e(v))

> **Policy 11e(v)** states that "In addition, project design and mitigation will demonstrate how the following impacts are assessed: *impacts on telecommunications and broadcasting installations, particularly ensuring that transmission links are not compromised".*

Summary

We object to the proposal on the basis that:

- The developer has not assessed the effects of the windfarm on television and telecommunications, despite academic papers clearly stating that windfarms do affect digital television and telecommunications, and the recent Glen Dye windfarm's approval had a condition attached related to this potential impact.
- There is no evidence for the developer's statement that there will no 'significant degradation' in microwave links located on and around the Hill with no evidence for this.
- There is no clarity on mitigations or compensations should problems arise.

Television and telecommunications

> The developer has scoped out detailed assessments of the effects on television and telecommunications because they claim that digital television is less likely to be affected by the atmospheric conditions compared to analogue television.
>
> Recent academic papers (for example https://www.pagerpower.com/news/wind-turbine-tv-interference-occur/?fbclid=IwAR3oKMrxwH_AuPTvNM-aj9l2Hnn9pE68ZPnolSS7YCg5hCIBmpFqLiiKhpI, and https://www.sciencedirect.com/science/article/pii/S1364032114000100) clearly state however that windfarms can and do adversely affect digital television and telecommunications due to effects such as blocking, chopping and/or reflection of the signal. Windfarms can also affect radars, including weather radars, covered in the aviation section of this document.
>
> The recently approved Glen Dye windfarm, which is in a relatively unpopulated area, included the following condition suggesting this issue may arise. It is much more likely to happen in a populated area around the Hill of Fare.
>
> *Glen Dye: 36. Television Reception*
>
> *(1) There shall be no Commencement of Development unless a Television Reception Mitigation Plan has been submitted to, and approved in writing by, the planning authority. The Television Reception Mitigation Plan shall provide for a baseline television reception survey to be carried out prior to the installation of any turbine forming part of the development, the results of which shall be submitted to the planning authority.*
>
> *(2) The approved Television Reception Mitigation Plan shall thereafter be implemented in full. Any claim by any individual person regarding television picture loss or interference at their*

house, business premises or other building, made during the period from installation of any turbine forming part of the development to the date falling twelve months after the date of Final Commissioning, shall be investigated by a qualified engineer appointed by the Company and the results shall be submitted to the planning authority. Should any impairment to the television signal be attributable to the development, the Company shall remedy such impairment so that the standard of reception at the affected property is equivalent to the baseline television reception.

Reason: *To ensure local television services are sustained during the construction and operation of this development.*

We object on the basis that the impacts on television and telecommunications have not been assessed. There is no clarity on mitigations or compensations should problems arise.

Microwave links

Four microwave links are reported in the Hill of Fare area by the developer (Arqiva, BT, JRC and Atkins). One, belonging to Arqiva, crosses the proposed development area. Arqiva have requested that no turbines should be located within 100m of the link indicating that there may be an issue. BT also require 100m minimum clearance from any structure to their radio link path.

We object on the basis that the developer states that the windfarm will provide 'no significant degradation', although it is not clear what this means for communities around the Hill. There is no clarity on mitigations or compensations should problems arise.

We conclude that the development should be refused.

16. OTHER ITEMS NOT INCLUDED – HEALTH AND SAFETY

Objections to 'other items – health and safety' are related to **Policy 23 (Health and Safety).**

POLICY 23: Health and Safety. (Contravenes policy 23b)

Policy 23b states that "Development proposals which are likely to have a significant adverse effect on health will not be supported. A Health Impact Assessment may be required."

Summary

We object to the proposal on the basis that the developer has underestimated or not assessed the risks related to:

- Blade failure
- Ice throw
- Surface erosion of wind turbine blades, which shed microplastics, including the toxic compound Bisphenol A
- Release of radon gas from Uranium rocks on the Hill of Fare and potential to pollute private water supplies
- The health and safety of construction workers involved in the blasting, crushing and use of the uranium ores contained within the Hill of Fare rocks
- Fire risks and mitigation of the battery installation

The developer has sought to scope out most of these issues. In the event that an incident does occur, however unlikely, it is important that there is clarity and confidence that this will be dealt with and managed properly. It is best practice to describe the approach that will be taken. This is entirely absent in the application documentation.

It is also not clear how the developer will manage Health and Safety on the work site during construction.

Furthermore, the impact of participating in this planning process on local residents' mental health has been significant and has not been taken into account.

Risks have been underestimated or not assessed

The development has a significant adverse effect on safety and therefore on health. Large windfarms and associated battery installations are known to be hazardous, with six key risks identified:

(1) The largest number of HSE incidents in windfarms is due to blade failure. This can arise from several possible sources and results in either whole blades or pieces of blade being thrown from the turbine. Pieces of blade have been documented as travelling up to 1-2km away from a turbine. In Germany, blade pieces have gone through the roofs and walls of nearby buildings. This paper models blade throws up to 2km https://docs.wind-watch.org/Sarlak_et_al-2016-throw-distances.pdf.

The Scottish Government's planning advice for onshore wind turbines, states "a guideline separation distance of up to 2km between areas of search for groups of wind turbines and the edge of towns, cities and villages". https://www.gov.scot/publications/onshore-wind-turbines-planning-advice/. There are several occupied houses within 2km of the proposed turbines, which constitutes a safety and health risk.

(2) Ice throw is also an issue. As with any structure, wind turbines can accumulate ice under certain conditions, such as ambient temperatures near freezing (0°C) combined with high relative humidity, freezing rain, or sleet. Any ice that is accumulated can be shed from the turbine due to both gravity and the mechanical forces of the rotating blades, as well as changes in weather conditions.

These safety concerns must be considered during project development and operation. Standard guidance requires locating the turbines a safe distance from any occupied structure, road, or public use area. Many of the turbines are next to public footpaths on the Hill of Fare and may not meet the safety guidelines.

(3) Surface erosion of the leading edges of wind turbine blades is one of the critical problems of windfarms. As the turbine blades spin through the air at top speeds of 120-180mph, they collide with rain, dirt particles, ice, and snow. This is like getting blasted with a power washer, and so over time, the coating on the blades wears down. As the coating wears away, it exposes the fibreglass beneath, which can also develop holes, cracking, splitting and delamination. These eroded blades are less effective and need expensive repairs to regain aerodynamic efficiency. The erosion of the blades leads to microplastics being shed.

Shedding of microplastics, including Bisphenol A, can have a significant impact due to pollution of water sources and soil damage. Bisphenol A (BPA) is a synthetic compound commonly used in the production of plastics and resins. BPA has been found to have potential negative health effects, particularly in large doses or prolonged exposure. It has been linked to various health concerns such as hormone disruption, reproductive issues, and developmental problems. The amount of BPA that is shed is difficult to estimate. Some research e.g., https://www.youtube.com/watch?v=1WrfAQFBvZ0 indicates up to 0.5kg of BPA can be shed per turbine per year – this would amount to ca. 8kg per year for the Hill of Fare.

The European Food Safety Authority (EFSA) has set a tolerable daily intake (TDI) for BPA to ensure that exposure remains within safe limits. The TDI considers all potential sources of exposure, including food and beverages. This safe TDI was reduced in May 2023 by a factor of 20,000 from 4 micrograms to 0.2 nanograms per kg of body weight (https://www.efsa.europa.eu/en/topics/topic/bisphenol). 8 kg of Bisphenol A would make water from the Hill of Fare unusable, and it will take 16 turbines to do this every year.

The Scottish Government has admitted that they have no idea how many of Scotland's 19,000 wind turbines may be releasing dangerous chemicals and confirm that no windfarm operator has been fined for failing to maintain their turbines.

(4) Uranium is known to be present in the Hill of Fare, and this is related to the release of radon gas when disturbed. The risks of releasing high levels of radon, particularly in private water supplies, have not been assessed.

(5) The health and safety of construction workers involved in the blasting, crushing and use of the uranium ores contained within the Hill of Fare rocks have not been adequately investigated or addressed. The Outline Construction Management Plan (Technical Appendix 2.1) makes no mention of this. The only mention of safety procedures is to hold "Toolbox Talks on specialised topics" supplementing the induction course. No risk assessments or policies are mentioned.

(6) The potential fire risks associated with lithium batteries in battery energy storage systems (BESS) are becoming widely acknowledged. The difficulty in controlling these

types of fires, especially if located near communities, is the “impossible choice between protecting the community from a potential toxic or explosive gas plume or applying water that would pollute local waterways for years” https://www.bbc.co.uk/news/uk-england-hampshire-66097217. The proposed BESS is located 3 km from Banchory (population ca. 8,000).

Finally, the effort and stress required to participate in the planning process also affects mental health and wellbeing, and this is likely to continue for a long time. As a group of unpaid, part-time volunteers, learning about the issues on the job, we are attempting to make the case on behalf of our community against well paid, full-time experts working for a corporation. It seems most unbalanced and is a threat to local democracy. It is also very time consuming and stressful.

17. OTHER ITEMS NOT INCLUDED - MINERALS

Objections to 'other items not included – minerals' are related to **Policy 33.**

Summary

We object to the proposal on the basis that the developer has not

- Considered the presence of radioactivity in the granite on the Hill of Fare.
- Carried out radiological impact assessments to determine the extent to which the development could have a detrimental impact on the health of local residents, and contractors involved in the work
- Provided any mitigation plans for any adverse impacts

POLICY 33: Minerals (contravenes policy 33d and 33e)

Policy 33e(ii) states: "Development proposals for borrow pits will only be supported where the proposal complies with the above (Policy 33d) mineral extraction criteria…"

Policy 33d(iii) states**:** "Development proposals for the sustainable extraction of minerals will only be supported where they… can demonstrate that there are no significant adverse impacts (including cumulative impact) on any nearby homes, local communities and known sensitive receptors and designations".

Policy 33d(iv) states**:** "Development proposals for the sustainable extraction of minerals will only be supported where they… demonstrate acceptable levels (including cumulative impact) of noise, dust, vibration and potential pollution of land, air and water".

Policy 33d(vi) states**:** "Development proposals for the sustainable extraction of minerals will only be supported where they…have appropriate mitigation plans in place for any adverse impacts".

Above average radiation levels are present

While the RES proposed development is for an industrial scale electricity generating plant and not related to mineral extraction, they will be extracting material to provide borrow pits. It is important to note that a survey conducted by the Institute of Geological Sciences (IGS), the government agency responsible for producing geological maps of the UK, between 1968 and 1973, revealed above average natural radiation levels (an indication of uranium in the underlying granite) in several locations including Hill of Fare.

With an emphasis on the development of nuclear power stations, the South of Scotland Electricity Board, expressed interest in exploratory drilling for uranium on the Hill of Fare. This was covered in the local Press and Journal and resulted in local opposition, including from Friends of the Earth Aberdeen, who produced a report "A Promise to Move Mountains. The search for uranium on Deeside".

Concerns raised included the risk of pollution from radioactive substances, toxic metals, and contaminated groundwater. It would cause severe permanent damage to soils, water resources, vegetation, wildlife fish-stocks, farming forestry and to land resources and ecology in general. There would also be the possibility of direct hazards to human health.

These risks identified in the 1970s are equally applicable today to the proposed windfarm on the Hill of Fare.

The UK Health Security Agency publishes reports containing radon Affected Area maps (ukradon.org). These maps show that the Hill of Fare has a maximum radon potential of >30%, **the maximum reported for any region of the UK.**

We object to the proposed development as the developer does not appear to have considered the presence of radioactivity in the granite on the Hill of Fare, nor have they carried out radiological impact assessments to determine the extent to which the development could have a detrimental impact on the health of local residents, and contractors involved in the work. They have also not provided any mitigation plans for any adverse impacts.

We conclude that the development should be refused.

18. <u>OTHER ITEMS NOT INLCUDED - WASTE</u>

Objections to 'other items – Zero Waste' are related to **NPF4 Policy 12 (Zero Waste**).

<u>POLICY 12: Zero Waste. (Contravenes policy 12a)</u>

> **<u>Policy 12a</u>** states that "Development proposals will seek to reduce, reuse or recycle materials in line with the waste hierarchy".

Summary

We object to the proposal because a major component of the development cannot be reused or recycled. Wind turbine blades are made of fibre glass, which is non-biodegradable and made up of a composite of very fine strands of plastic and glass which is extremely difficult to process at the point of recycling. They are usually discarded as waste at landfills or incinerated.

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