DUGGLEBY WOLD WIND TURBINE

Planning Statement Incorporating Design & Access Statement

Monday, 11 July 2022

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1.0 INTRODUCTION

1.1 This report has been prepared by Carter Jonas on behalf of the Applicant, Mr James Barstow of Brackendale Limited, and provides information in support of the planning application for the installation of a replacement wind turbine on land to the south of Duggleby Wold Farm, Weaverthorpe. The wind turbine is to be installed in replacement of an existing wind turbine that is proposed to be decommissioned and replaced due to operational issues.

1.2 This report sets out the details of the application and provides an assessment of the acceptability of the replacement wind turbine. It draws on relevant national and local planning policies along with other material considerations and should be read in conjunction with the drawings and specialist assessments submitted in support of the planning application.

1.3 Further to the above, this statement has been prepared to assist in the consultation process and help inform Ryedale District Council and the public about the merits of the application.

Application Site

1.4 The replacement wind turbine is proposed to be located on the site of the existing wind turbine (the 'Site') south of Duggleby Wold Farm, circa 2.5km north of the village of Weaverthorpe and circa 3.4km south of the A64 and the village of Sherburn. A Location Plan and Site Plan is provided in Appendices 1 and 2.

1.5 The Site comprises 0.17 hectares of hardstanding adjacent to the existing wind turbine. The infrastructure for the existing wind turbine comprises its foundation, grid connection kiosks, crane pad and access track. The land use surrounding the Site is open arable farmland, currently cultivated with oil seed rape. The Site and its surroundings are not subject to any environmental designations.

1.6 There is no public access to the Site and there are few residential properties in the locality of the Site, the nearest being Duggleby Wold Farm located circa 0.4km northeast of the Site, High Dale Farm circa 0.9km southeast, and Fosters Wold Farm circa 0.9km northeast.

1.7 The nearest public rights of way to the Site at their closest point are Sked Dale Lane (the Sherburn to Weaverthorpe Road), circa 0.7km east, and a bridleway 0.8km south.

1.8 The Site is accessed via the existing access road to Duggleby Wold Farm, and then via existing access tracks routing southeast along the boundary of the field, before turning west along the dedicated access track towards the Site.

Planning History

1.9 Ryedale District Council granted planning permission for the installation of two wind turbines on 21 June 2011, Application No: 10/01311/FUL.

1.10 The planning permission allowed for *"The erection of 2no. 32.4m high (tip height 48m) freestanding 250KW monopole wind turbines & associated electrical equipment cabinets and underground cabling for electricity generation direct to the National Grid".*

1.11 Only one wind turbine was subsequently installed (referred to in this report as 'the existing wind turbine'), and only one wind turbine is proposed in replacement ('the replacement wind turbine').

2.0 THE PROPOSED DEVELOPMENT

2.1 The specification of the replacement wind turbine versus the existing wind turbine is as follows:

	Existing Wind Turbine	Replacement Wind Turbine
Make & Model	Vergnet GEV MPR	Vestas V47
Number of Blades	Two	Three
Hub Height	32 metres	40.7 metres
Rotor Radius	16 metres	23.5 metres
Colour & Finish	Galvanised steel tower & matt light grey nacelle and blades (RAL7035)	Matt light grey (RAL7035)
Generating Capacity	250kW	250kW

2.2 A different wind turbine model is proposed because the supplier of the existing wind turbine has gone into administration and consequently parts are no longer warranted or readily available.

2.3 The proposed location of the replacement wind turbine is adjacent to the existing wind turbine. The replacement wind turbine is being micro-sited within the swept path of the existing wind turbine because the same foundation cannot be utilised owing to the turbines being different. The existing wind turbine and its foundation will be removed at the time of installation of the replacement wind turbine.

2.4 The replacement wind turbine will utilise the grid connection kiosks, access track and crane pad of the existing wind turbine. The only new element required is a new turbine foundation.

2.5 The renewable electricity generated by the replacement wind turbine will be connected to the grid utilising the grid connection for the existing wind turbine, allowing the landowner to continue to produce renewable energy, offset carbon emissions and to maintain the long-term sustainability of the farm.

2.6 Further information is provided in the Design and Access section below.

3.0 DESIGN AND ACCESS

Use

3.1 The replacement wind turbine will allow the Applicant to continue to produce a clean renewable and sustainable form of electricity on the Site at Duggleby Wold Farm.

3.2 The Applicant co-manages the family farming business, which harvests approximately 150 acres of oilseed rape, 300 acres of wheat, 200 acres of spring barley and 200 acres of winter barley each year. In addition, the farm has 90 acres of seed potatoes, 150 acres of peas, 20 acres of carrots, 65 acres of grazing and rears 800 pigs.

3.3 In 2011 the Applicant committed to contributing to offsetting his and the community's carbon emissions, and this motivation remains. The objectives of having a wind turbine on the Site continue to be:

- To provide electricity to offset the energy use of Duggleby Wold Farm.
- To meet the increasing demands from suppliers to reduce overall carbon footprints and maintain a market advantage;
- To reduce the overall carbon footprint of the farm through offsetting energy usage;
- To support the continued viability of the farm through diversification for an agricultural business; and
- To promote the use of renewable energy generation in the area.

Amount

3.4 The proposal comprises a single wind turbine and its foundation, the Site of which comprises 0.17 hectares of hardstanding adjacent to the existing wind turbine which is proposed to be decommissioned. The infrastructure for the existing wind turbine comprises its foundation, grid connection kiosks, crane pad and access track.

Layout

3.5 The proposed location of the replacement wind turbine is E496099, N473355, within the swept path of the existing wind turbine, circa 0.4km south of Duggleby Wold Farm. A Site Plan is provided in Appendix 2.

3.6 The layout reflects that of the existing wind turbine. The replacement wind turbine will utilise the existing access track, crane pad and grid connection kiosks (with associated underground cabling).

Scale

3.7 As detailed in Section 3.1, the replacement wind turbine is a three-bladed Vestas V47 wind turbine with a hub height of 40.7 metres and rotor radius of 23.5 metres. The Vestas V47 wind turbine will have a generating capacity of 250kW, consistent with the existing wind turbine.

3.8 The only new infrastructure required for the replacement wind turbine is a new turbine foundation, proposed to be constructed in the swept path of the existing wind turbine because the same foundation

cannot be utilised owing to the turbine designs being different. The new foundation is anticipated to be 9.8 metres long by 9.8 metres wide and circa 1.9 metres deep, subject to ground conditions.

Appearance

3.9 Appendix 3 shows the elevation and design of the replacement wind turbine. The scale of the replacement wind turbine in relation to the surrounding area is illustrated in the viewpoint photography and wireline images prepared for the Landscape and Visual Appraisal, copies of which are provided in Appendix 4.

3.10 The key difference between the existing wind turbine and the replacement wind turbine in terms of appearance is the blades, which propose a change from a two-bladed wind turbine to a more conventional three-bladed wind turbine.

Landscaping

3.11 The footprint of the replacement wind turbine comprises 0.17 hectares of hardstanding on the existing wind turbine site. The surrounding land use is arable farm land and this will remain unchanged.

Access

3.12 The Site is accessed via the existing access road to Duggleby Wold Farm off Sked Dale Lane, and then via existing access tracks routing southeast along the boundary of the field, before turning west along the dedicated access track towards the Site.

3.13 It is proposed that the previous access route to the Site will be utilised; routing from the A64 circa 3.5km north, and then south along the Sked Dale Lane (the Sherburn to Weaverthorpe Road), before turning west along the access road into Duggleby Wold Farm.

3.14 The replacement wind turbine components will be delivered on standard length Heavy Good Vehicles. No access improvements or upgrade works are anticipated for the replacement wind turbine given there is already an access track in place for the existing wind turbine.

3.15 Once the replacement wind turbine is operational, access will only be required once a month by light goods vehicle for servicing and maintenance.

Construction

3.16 Decommissioning of the existing wind turbine, construction / installation of the replacement wind turbine and its new foundation is anticipated to take no longer than one month.

Decommissioning

3.17 The replacement wind turbine is designed with an operational life of at least 25 years with repowering a possibility. The design of the turbine is such that when it comes to the end of its life, it can be dismantled and easy restoration of the Site can be carried out without delay.

4.0 STATEMENT OF COMMUNITY INVOLVEMENT

Site Notices and Letters

4.1 Letters to provide notification of the forthcoming replacement wind turbine planning application were distributed to the Parish Councils of Sherburn, Weaverthorpe and Ganton via e-mail on 20 June 2022. An example copy of the letter is provided at Appendix 5.

4.2 In addition, site notices were placed at the entrance to the Duggleby Wold Farm access road, and on the nearest Public Right of Way, that being the bridleway entrance on Sked Dale Lane circa 0.9km to the south west of the Site, on 24 June 2022.

4.3 Each site notice comprised a single A3 sheet of laminated paper advising readers of the replacement wind turbine and providing contact details to enable people to request further information and submit comments. A copy of the site notice and photographs of the site notices in situ can be found at Appendix 6.

4.4 No comments or concerns have been raised regarding the replacement wind turbine to date.

6.0 PLANNING POLICY CONTEXT

Relevant Planning Policy

6.1 This section of the Planning Statement sets out the planning policy background against which the replacement wind turbine is to be considered. It sets out the relevant planning policy within the statutory development plan and national planning policy and guidance which influence the proposed development. An assessment of the proposals against this policy, and other material considerations, is also provided.

6.2 S38(6) of the Planning and Compulsory Purchase Act 2004 states that *"If regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise".*

The Ryedale Development Plan

6.3 The Ryedale Development Plan comprises the Ryedale Local Plan Strategy, Local Plan Sites Document, Regional Spatial Strategy, Helmsley Plan, and Minerals and Waste Joint Plan.

6.4 The statutory Development Plan this proposal will be assessed against is the Ryedale Local Plan Strategy effective from 05 September 2013. It is anticipated that the following policies will be considered in the determination of this application:

- SP1 General Location of Development and Settlement Hierarchy
- SP12 Heritage
- SP13 Landscapes
- SP14 Biodiversity
- SP15 Green Infrastructure Networks
- SP17 Managing Air Quality, Land and Water Resources
- SP18 Renewable and Low Carbon Energy
- SP19 Presumption in Favour of Sustainable Development
- SP20 Generic Development Management Issues

The National Planning Policy Framework

6.5 The National Planning Policy Framework (NPPF) (2021) sets out the Government's planning policies for England and how these should be applied and the expectations of planning policies and decisions to achieve sustainable development.

6.6 The purpose of the planning system is to contribute to the achievement of sustainable development for which there are three overarching objectives: social, economic and environmental. The environmental role of sustainable development is defined in the NPPF as contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, using natural

resources prudently, minimise waste and pollution, and mitigating and adapting to climate change including moving to a low carbon economy (paragraph 8 c).

6.7 Local Planning Authorities (LPAs) are encouraged to support the transition to a low carbon economy in a changing climate, shaping places in ways that contribute to radical reductions in greenhouse gases, encourage the reuse of existing resources, and support renewable and low carbon energy and associated infrastructure (paragraph 152).

6.8 The NPPF also states that LPAs should not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions. LPAs are also encouraged to approve applications for renewable and low carbon development if the impacts of development are (or can be made) acceptable (paragraph 158).

National Energy Policy

6.9 The UK Energy White Paper published in 2003 initially outlined the UK Government's long-term strategic vision for energy policy in the UK. The White Paper marked a significant change to energy policy, because it brought environmental concerns into the debate for the first time. The intention was to define a long-term strategic vision for energy policy, which would combine the UK's environmental, security of supply, competitiveness and social goals. Central to this, the White Paper set a goal to cut the UK's carbon emissions – the main contributor to global warming – by some 60% by 2050.

6.10 The Government then published 'Meeting the energy challenge: a White Paper on energy' in July 2007. This Paper reaffirmed the need to tackle climate change by cutting greenhouse gas emissions, and the need to ensure security of supply. It set out a commitment to the important role renewables – including wind turbines – have to play, and how new renewable projects may not always appear to convey any particular local benefit, but provide crucial national benefits.

6.11 The Climate Change Act 2008 (amended 2019), an Act of the UK Parliament aimed at the UK becoming a low-carbon economy, then set a target of achieving a 100% cut in greenhouse gas emissions by 2050. This gives ministers powers to introduce the measures necessary to achieve a range of greenhouse gas reduction targets.

6.12 In July 2011 'Planning our electric future: a White Paper for secure, affordable and low-carbon electricity' was published. This set out the Government's commitment to transform the UK's electricity system to ensure that future electricity supply is secure, low carbon and affordable, noting that electricity plays a part in almost every aspect of modern life and is vital to economic and social wellbeing. The White Paper noted a number of unprecedented challenges in the coming decades, notably that security of supply is threatened as existing plants close; a need to decarbonise electricity generation to meet renewable energy and carbon reduction targets; and that demand for electricity and the cost of electricity is likely to rise.

6.13 In December 2020 the 'Energy White Paper, Powering our Net Zero Future' was published outlining the UK Government's long-term strategic vision for the country's energy target to become net zero by 2050. The Energy White Paper builds on the Prime Minister's Ten Point Plan for a Green Industrial Revolution. The aim is to transform energy, building a cleaner, greener future, and includes key commitments to consumers, power, energy systems, buildings, industrial energy, and oil and gas, all in a bid to reduce the UK's carbon footprint.

6.14 Decarbonising the power sector has led the UK's efforts to reduce greenhouse gas emissions. In 1990, electricity generation accounted for 25% of UK emissions. In 2018, it was only 15%. Thirty years ago,

fossil fuels provided nearly 80% of the electricity supply. Today, the country gets over half of its power from low carbon technologies. The rapid growth of renewables has been a critical feature of this transformation. Renewable capacity has grown fivefold since 2010, driven by the deployment of wind, solar and biomass. The UK had 10GW of operational offshore wind by 2019, up from just over 1GW in 2010.

6.15 Renewables now account for 40% of electricity generation, up from seven percent in 2010. Yet, this green revolution has been delivered without disruption to the reliability of our electricity supply and the scale of deployment has contributed to a significant reduction in the cost of renewables. Increasingly, green power is the cheapest power. Building on this foundation, the Energy White Paper states that we must go further. While retiring capacity from fossil fuels will need to be replaced to keep pace with existing levels of demand, modelling suggests that overall demand could double by 2050. This is because of the electrification of cars and vans and the increased use of electricity instead of gas for heating. National Grid modelling estimates by 2050 electricity will make up 84% of all energy demand.

6.16 This would require a four-fold increase in clean electricity generation with the decarbonisation of electricity increasingly underpinning the delivery of our net zero targets. Given the pivotal role of electricity in delivering net zero emissions, we must aim for a fully decarbonised, reliable and low-cost power system by 2050.[1]

6.17 In respect of power, electricity is a key enabler for the transition away from fossil fuels and decarbonising the economy cost-effectively by 2050, and onshore wind is considered to be one of the key building blocks of the future generation mix.

[1] BEIS (2020), Energy White Paper: Powering Our Net Zero Future

7.0 PLANNING ASSESSMENT OF THE DEVELOPMENT AND ITS ENVIRONMENTAL FACTORS

Introduction

7.1 This section identifies the main planning issues and provides an analysis of how the replacement wind turbine accords with planning policy at national and local levels. The following matters are considered in turn:

1. Principle of the Proposed Development
2. Sustainable Development
3. Archaeology and Heritage
4. Ecology
5. Landscape and Visual Impact
6. Noise
7. Shadow Flicker
8. Aviation and Telecommunications

Principle of the Proposed Development

7.2 Renewable energy generation developments are supported at a national level in policy and legal commitments to achieve a reduction in carbon emissions. National policy and guidance is clear that subject to sensitive siting of proposals, applications should be approved. The generation of renewable energy is a significant material consideration which weighs substantially in the proposals favour.

7.3 Paragraph 158 of the NPPF provides guidance on determining planning applications for renewable energy developments. The overall need for renewable energy developments does not need to be demonstrated, and it recognises that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions. It is expected that applications for renewable energy projects will be approved if the impacts are, or can be made, acceptable.

7.4 Developments for renewable and low carbon energy are supported by Ryedale Local Plan Policy SP18, which states that *"Developments that generate renewable and/or low carbon sources of energy will be supported providing that individually and cumulatively proposals:*

- *Can be satisfactorily assimilated into the landscape or built environment, especially in respect of the setting of the North York Moors National Park, the Howardian Hills Area of Outstanding Natural Beauty (and its setting), the Wolds and the Vale of Pickering;*
- *Would not impact adversely on the local community, economy, or historical interests, unless their impact can be acceptably mitigated;*
- *Would not have an adverse impact on nature conservation, in particular in relation to any sites of international biodiversity importance, unless their impact can be acceptably mitigated;*
- *Would not have an adverse impact on air quality, soil and water resources in Policy SP17, unless their impact can be acceptably mitigated."*

7.5 The existing wind turbine satisfied Policy SP18, making a positive contribution to renewable energy generation in the District, and this report demonstrates that the replacement wind turbine also satisfies the requirements of this policy, and as such should be supported.

Sustainable Development

7.6 Paragraph 8 of the NPPF identifies the three overarching objectives of the planning system to achieve sustainable development. The three objectives are economic, social and environmental. The environmental objectives are particularly relevant to the replacement wind turbine, which seeks to protect the natural environment and support the transition to a low carbon economy.

7.7 Policy SP1 of the Ryedale Local Plan Strategy sets out Ryedale's future development requirements. It is stated that development in the open countryside will be restricted to that: which is necessary to support a sustainable, vibrant and healthy rural economy and communities; which can be justified in order to secure significant improvements to the environment or conservation of significant heritage assets in accordance with the National Enabling Development Policy and SP12 of the Local Plan; or which is justified through the Neighbourhood Planning Process.

7.8 The Ryedale Local Plan Strategy contains strategic objectives which relate to the delivery of sustainable development. This includes objectives that seek to protect heritage (Policy SP12), to protect the quality, character and value of landscapes (Policy SP13), to conserve, restore and enhance biodiversity (Policy SP14) and green infrastructure (SP15), and managing air quality, land and resources (SP17).

7.9 Policy SP19 – Presumption in Favour of Sustainable Development, states that when considering development proposals Ryedale District Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the NPPF. The objective states that:

"It will always work proactively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.

Planning applications that accord with the policies in this Local Plan (and, where relevant, with polices in Neighbourhood Plans) will be approved without delay, unless material considerations indicate otherwise".

7.10 The replacement wind turbine will generate renewable energy and in turn will contribute towards the delivery of sustainable communities without causing significant harm to the environment. The proposed development therefore accords with these policies.

7.11 The planning application is supported by technical reports to assess the impact of the replacement wind turbine on ecology, landscape and visual impact, and noise, these being the relevant considerations resulting from the proposed change in turbine type from the existing wind turbine to the replacement wind turbine. These reports are submitted in support of the application and the conclusions of these assessments are covered in subsequent sections of this report.

Archaeology and Heritage

7.12 Paragraphs 194 to 195 of the NPPF require applications affecting heritage assets to determine the significance of that asset, so the impact of development can be assessed, and any conflicts avoided or minimised. Policy SP12 of the Local Plan Strategy seeks to sustain and enhance heritage assets.

7.13 A geophysical survey was undertaken in support of Application No: 10/01311/FUL, which permitted the installation of two wind turbines. The survey concluded that the geophysical structure in the vicinity is dominated by linear trends which reflect the ploughing alignment, but a handful of anomalies were identified as having the potential of being archaeological in nature. Consequently, an archaeological watching brief was undertaken at the time of construction of the existing wind turbine, which was satisfactorily discharged.

7.14 As noted in Section 2.0, the replacement wind turbine will be located within the swept path of the existing wind turbine, utilising an area of the existing crane pad. The crane pad comprises an area of crushed stone hardstanding, part of which will be excavated to install the replacement wind turbine foundation. No impacts on archaeology are therefore anticipated.

7.15 It is therefore considered that the conclusions of the assessment submitted in support of Application No: 10/01311/FUL remain relevant for the reasons outlined above, and the replacement wind turbine is acceptable in respect of archaeology and heritage.

Ecology

7.16 Paragraph 180 of the NPPF sets out the approach to take towards protecting and enhancing biodiversity when determining planning applications. In summary, the approach to decisions is based on the significance of the impact, the designation status of the site, and the impact on the habitat.

7.17 Policies NH/4 and NH/5 of the Local Plan seek to conserve or enhance biodiversity, including protected sites, habitats and species.

7.18 Ecological interests were a key consideration for the original proposal and informed the location of the existing wind turbine to ensure that best practice guidance was met. Natural England were consulted, a Phase 1 Habitat Survey was carried out and an ecological assessment was completed. It was determined that the previous Application No: 10/01311/FUL, which permitted the installation of two wind turbines, would have no significant impacts on ecology.

7.19 In order to update the baseline, SLR Consulting have completed an ecological impact assessment for the replacement wind turbine, a copy of which is provided in Appendix 7.

7.20 The Site is not subject to any ecological designations. The nearest designated site is Sked Dale Site of Special Scientific Interest located approximately 1.7km north of the Site, which is designated for its botanical interest. As per the previous application, this site would not be affected.

7.21 The Site is within an arable field with limited ecological value. No protected or notable species, or field signs thereof, were found at, or near the Site, and the land at, or near the replacement wind turbine location does not have the potential to support such species.

7.22 The nearest hedgerow lies approximately 118 metres from the proposed replacement wind turbine location, well beyond the Natural England recommended stand-off, ensuring that the proposed replacement wind turbine will have a negligible impact upon foraging and/or commuting bats.

7.23 It is therefore considered that the conclusions of the assessment submitted in support of Application No: 10/01311/FUL remain relevant, and the replacement wind turbine is acceptable in respect of ecology.

Landscape and Visual Impact

7.24 Paragraph 174 of the NPPF states that the planning system should contribute to the protection and enhancement of the natural and local environment through, among other things, protecting and enhancing valued landscapes.

7.25 Local Plan Policy SP13 seeks to protect and enhance landscape character.

7.26 Zone of Theoretical Visibility (ZTV) mapping, viewpoint identification and photomontages were prepared in support of Application No: 10/01311/FUL, which permitted the installation of two wind turbines. Although the previous appraisal considered two wind turbines, just one was constructed, which is proposed to be decommissioned due to operational issues. The replacement wind turbine varies in height by 16.2 metres.

7.27 In support of the planning application for the replacement wind turbine, new ZTV mapping, viewpoint photography and wireline images have been prepared to illustrate the proposed change, and a visual appraisal has been undertaken, a copy of which is provided in Appendix 4.

7.28 The ZTV mapping, viewpoint photography and wirelines present similar viewpoint locations to those in Application No: 10/01311/FUL, illustrating the current baseline and how this would change. It should be noted that the ZTV represents the worst case 'bare earth' scenario as it does not take account of screening elements such as vegetation or built form.

7.29 The visual appraisal notes that there are frequent views of wind turbines within the local landscape of the Site. Many wind turbines are found in pairs or alone and are associated with farmsteads and settlements. There are some larger wind farms on the distant horizon to the south.

7.30 There will be some views towards the Site from individual farmsteads and other small groups of scattered properties but intervening vegetation limits these to some degree, and many views are distant with the replacement wind turbine forming a very small component in views.

7.31 The images illustrate that the change in visual impact from the existing wind turbine to the replacement wind turbine is negligible to small.

Noise

7.32 Pre-application consultation with Ryedale District Council on Application No: 10/01311/FUL, which permitted the installation of two wind turbines, concluded that due to the large distances to residential properties, and taking account of noise data for the wind turbines, further studies assessing the noise impact would not be necessary.

7.33 The Site is sparsely populated and a desk-based study identified only two properties which could potentially be affected: High Dale Farm circa 0.9km southeast, and Fosters Wold Farm circa 0.9km northeast. Duggleby Wold Farm, located circa 0.4km north of the Site, is a financially involved property of the Applicant.

7.34 Nevertheless, owing to the proposed change to the make and model of wind turbine, a desk-based noise impact assessment has been completed for the replacement wind turbine, a copy of which is provided in Appendix 8.

7.35 Philip Dunbavin Acoustics Ltd (PDA) has carried out a noise assessment to predict the worst-case downwind turbine noise levels at the nearest noise sensitive locations to the replacement wind turbine. This was based on measured sound power for the Vestas V47 wind turbine and prediction methodology

detailed within the Institute of Acoustics (IoA) *"Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise"*.

7.36 The noise assessment was undertaken to assess compliance with the guidance contained within ETSU-R-97 *"Assessment and Rating of Noise from Wind Farms"*, as referred to in the National Policy Statement for Renewable Energy Infrastructure (EN-3). The predictions have indicated that the noise levels generated by the replacement wind turbine do not exceed the simplified noise criteria specified within ETSU-R-97. The replacement wind turbine is therefore compliant with the requirements of ETSU-R-97.

Shadow Flicker

7.37 A shadow flicker assessment was undertaken in support of Application No: 10/01311/FUL, which permitted the installation of two wind turbines, and concluded that there would be no shadow flicker impact.

7.38 The shadow flicker assessment is based on the guidance set out in "Planning for Renewable Energy: A Companion Guide to PPS22" which remains the relevant guidance for shadow flicker from wind turbines. The guidance states that shadow flicker impact can be mitigated by siting wind turbines at sufficient distance from properties, and flicker effects have been proven to occur only within ten rotor diameters of a turbine. As well, only properties within 130 degrees either side of north, relative to turbines can be affected at these latitudes in the UK; turbines do not cast long shadows on their southern side.

7.39 No residential properties fall within the 470 metre (10 times 47 metre rotor diameter) separation distance of the replacement wind turbine and therefore there would be no shadow flicker impact from the replacement wind turbine.

Aviation and Telecommunications

7.40 Aviation and telecommunications interests were consulted on Application No: 10/01311/FUL. This included the Ministry of Defence, the Civil Aviation Authority, National Air Traffic Services (NATS) and Ofcom, all of whom had no objection.

7.41 In support of the planning application for the replacement wind turbine, the above parties have been re-consulted, along with Atkins and the Joint Radio Company.

7.42 To date, Atkins, Ofcom and the Joint Radio Company have raised no concerns. Information is awaited from The Ministry of Defence and NATS. The CAA have not responded.

8.0 CONCLUSION

8.1 The planning application proposes the replacement of an existing wind turbine on the Site due to operational issues. The replacement wind turbine has a slightly different scale and appearance to the existing wind turbine but will utilise the existing infrastructure save for a new foundation.

8.2 The renewable electricity generated by the replacement wind turbine will be exported directly to the grid utilising the grid connection for the existing wind turbine, allowing the landowner to continue to produce renewable energy, offset carbon emissions and continue the long-term sustainable operation of the farm.

8.3 Consideration has been given to the proposed change in wind turbine type and scale, and the assessments provided in support of this application demonstrate the replacement wind turbine is not expected to give rise to any detrimental effects over those associated with the existing wind turbine, and the existing planning permission for the site, which permitted the development of two wind turbines on the site, versus the single replacement wind turbine being proposed.

Carter Jonas