



Ventient Energy Limited

Galawhistle Wind Farm Life Extension

Section 36 Variation Application Supporting Information:

Environmental Report

663638-02

NOVEMBER 2022

RSK



RSK GENERAL NOTES

Project No.: 663638-02 (00)

Title: Galawhistle Wind Farm Life Extension
Section 36 Variation Application Supporting Information: Environmental Report

Client: Ventient Energy Limited

Date: 16 November 2022

Office: Glasgow

Status: Final

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Ventient Energy Limited
Galawhistle Wind Farm Life Extension
Section 36 Variation Application Supporting Information
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PREFACE

Galawhistle Wind Farm Limited ('the Applicant'), a wholly owned subsidiary of Ventient Energy Limited (Ventient) is submitting an application under Section 36C (s36C) of The Electricity Act 1989 ('the Act') as amended in order to extend the operational period of Galawhistle Wind Farm (hereafter referred to as Galawhistle) from 25 years to 35 years. The Applicant is the owner of Galawhistle which is operated by Ventient.

Galawhistle is located approximately 7 km east of Muirkirk in East Ayrshire and 5 km west of Douglas in South Lanarkshire. The wind farm has been operational since March 2017 and the current Section 36 planning consent (s36C) expires in March 2042. A s36C variation application would allow the continuation of operations rather than decommissioning after the consented 25 years. No changes to existing turbines or infrastructure are proposed.

Within its portfolio, Ventient has a number of wind farms that are significantly older than Galawhistle. Ventient has conducted Engineering Life Extension analysis on several wind farms, which provides information on the needs of each individual wind farm but also gives assurance that other wind farms in the portfolio can operate beyond the term of their original planning consent.

RSK Environment Limited has been commissioned by Ventient to compile the Section 36 variation application. Following advice from The Scottish Government Energy Consents Unit (ECU), this document augments the information already available within the Environmental Statement (ES) originally prepared for Galawhistle. It contains the necessary information required to allow the application to be considered by the ECU, South Lanarkshire Council, East Ayrshire Council and statutory consultees such as NatureScot, Historic Environment Scotland (HES) and The Scottish Environment Protection Agency (SEPA).

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1 INTRODUCTION

1.1 Structure of the Document

Utilising a topic-based structure, this document assesses the predicted effects occurring as a result of extending the life of Galawhistle Wind Farm.

This document is structured as follows:

- Section 1 sets out the structure of the document;
- Section 2 sets out the document purpose, project background, development planning requirements, physical characteristics, benefits and location of the development, and method of assessment used;
- Section 3 describes the characteristics of likely effects on landscape, ecology, and ornithology issues;
- Section 4 provides a schedule of mitigation; and
- Section 5 provides a summary and conclusions.

Appendices to the document include:

- Appendix 1: Supporting Information; and
- Appendix 2: Consultation Information

For ease of reference, the main chapters from the Galawhistle Environmental Statement (ES) are detailed in Table 1.1 along with a reference to the relevant section of this document which describes the characteristics of likely effects and any mitigation requirements.

Table 1.1: Reference to Galawhistle ES

Galawhistle ES Chapter Details	Section of Variation Application Report
Chapter 5 – Landscape and Visual Impact Assessment	3.1 – Landscape & Visual Issues
Chapter 6 – Ecology	3.2 – Ecology and Ornithology Issues
Chapter 7 – Ornithology	3.2 – Ecology and Ornithology Issues
Chapter 8 – Hydrology, Hydrogeology and Geology	3.3 – Scoped out Issues
Chapter 9 – Cultural Heritage	3.3 – Scoped out Issues
Chapter 10 – Noise	3.3 – Scoped out Issues
Chapter 11 – Traffic and Transport	3.3 – Scoped out Issues
Chapter 12 – Socioeconomics, Tourism and Land-use	3.3 – Scoped out Issues
Chapter 13 – Other Considerations	3.3 – Scoped out Issue

2 BACKGROUND AND CONTEXT

2.1 Document Purpose

By a decision letter dated 08 August 2012, the Scottish Ministers granted consent under Section 36C of the Electricity Act 1989 (the 's36 consent') together with a direction under Section 57 (2) of the Town and Country Planning (Scotland) Act 1997 (the permission) granting deemed planning permission for Galawhistle Wind Farm (hereinafter referred to as 'Consented Development').

In September 2014 a variation application was submitted to the Scottish Ministers (ECU reference: EC00003123) for several variations to the 2012 Consented Development, as follows:

- a. To formalise use of a 45 m blade length within the consented wind turbine blade tip height limits.
- b. To amend the overall maximum capacity of the Consented Development from 55 MW to 66 MW.
- c. To amend the locations of two electrical substations and associated infrastructure, and to provide an additional construction compound.
- d. To remove the construction compound and laydown area located on Spireslack colliery.
- e. To amend wind farm access track layouts, chiefly to replace tracks to wind turbines which previously ran through Spireslack colliery.
- f. To realign borrow pits 2 and 3 to accommodate revised track layout, and to include working areas next to all borrow pits.

The variation was consented in May 2015, and the wind farm was built and became fully operational in March 2017.

The Applicant seeks a variation under s36C of the Electricity Act 1989 and the Electricity Generating Stations (Applications for Variation of Consent) (Scotland) Regulations 2013 to the duration of the consent from 25 years to 35 years as described in Annex 2 – Conditions, page 9 of the decision notice dated 08 August 2012¹.

2.2 The Applicant

Galawhistle Wind Farm Limited is the owner of Galawhistle and is a wholly owned subsidiary of Ventient Energy Limited (Ventient).

Ventient has a strong track record in operating wind farms. They own and operate 140 onshore wind farms in Europe with a total installed capacity of over 2.8 GW, of which 13 are located in Scotland with an installed capacity of 422.5 MW.

¹ No amendments to this condition were proposed or agreed to in relation to the 2014 variation application and 2015 decision letter.

2.3 RSK

RSK Environment Ltd (hereafter referred to as RSK) has been commissioned by the Applicant to compile the Section 36 variation application and to provide environmental and planning advice.

RSK is a fully integrated, environmental, health, safety and engineering consultancy with extensive experience of providing environmental, health, safety and engineering services to the renewable energy onshore sector.

2.4 Life Extension Assessment

Ventient has developed considerable in-house engineering capability to allow them to safely operate its wind farms for longer and are currently showing this on wind farms that are over 20 years old. Ventient has conducted Engineering Life Extension analysis on a number of wind farms, which provides information on the needs of each individual wind farm but also gives assurance that other wind farms in the portfolio can operate beyond the term of their original planning consent.

2.5 Location and Physical Characteristics of Development

Galawhistle is located approximately 7 km east of Muirkirk in East Ayrshire and 5 km west of Douglas in South Lanarkshire.

The site was selected originally for the construction of a wind farm for a range of reasons which included high average wind speed and access to grid infrastructure. The site is not located within any area of national environmental importance, does not support any landscape designations and is not located within any aviation or military safeguarding zones.

The site occupies an area of approximately 594 hectares (primarily consisting of upland moorland) and its highest point is 463 m Above Ordnance Datum (AOD). The wind farm layout comprises 22 Vestas V90 wind turbine generators, with 65 m and 75 m hub heights, and 45 m blade lengths; 20 wind turbines are located in South Lanarkshire and 2 turbines are located in East Ayrshire.

Each turbine is mounted on a tapered tubular steel tower and consists of a nacelle containing the gearbox, generator, and associated equipment to which are attached a hub and rotor assembly, including three glass/carbon fibre-reinforced polyester blades. With each wind turbine generator having a 3 MW capacity, Galawhistle has an overall installed capacity of 66 MW. Associated infrastructure includes a substation, onsite access tracks and underground cabling.

The location and approved layout of the consented scheme is shown in Appendix 1².

²Note: The actual built access route does differ from that shown on the approved site location plan. This does not have any bearing on this application.

2.6 Benefits of Galawhistle Life Extension

Socio-economic benefits

Employment and community benefit fund

There will continue to be direct employment associated with the ongoing operation and maintenance of Galawhistle for locally based technicians. In addition, contractors involved in operation and maintenance activities use local accommodation and retail facilities when visiting the wind farm.

Although not a material consideration, the Applicant is also committed to continuing to provide the community benefit fund throughout the proposed extended period of operation. Galawhistle's community benefit fund benefits local communities within 10 km of the wind farm and, since 2017, has supported a wide range of local projects within the area, including:

- Contribution to Coalburn Pipe Band for work on the roof and cladding of their hall;
- Funded Douglasdale Real Group to purchase an All-Terrain Vehicle and a winch kit to assist in repairing nearby foot paths;
- Funded Coalburn Miners Welfare Charitable Society to supply and install 12 laptops for a community training programme to upskill local people and help them back into the world of work. This project was then complemented by an award to Skills Exchange Scotland to establish weekly job clubs in Coalburn and Douglas;
- Funded Coalburn Miners Welfare Charitable Society to provide food boxes and food vouchers to the most vulnerable in the Coalburn community during Covid-19 pandemic;

Other beneficiaries have included Coalburn IOR pipe band, Glespin Community Group, 1st Douglas Brownies and 1st Douglas Rainbows.

Hagshaw Energy Cluster Development Framework

Ventient was actively involved in the development of the Hagshaw Energy Cluster Development Framework which is currently undergoing public consultation by South Lanarkshire Council and East Ayrshire Council and is committed to playing a role in helping deliver the agreed aims and objectives of the Framework.

Positive contribution to UK and Scottish Government targets for renewable electricity generation

In December 2017, the Scottish Government published two energy policy documents, the Scottish Energy Strategy (SES) 'The Future of Energy in Scotland' and Onshore Wind Policy Statement (OWPS). Together, these policy documents set out the Scottish Government's intended energy and climate strategy, at that time, for the period to 2050. The SES contains six energy priorities including increasing renewable energy production and increasing flexibility, efficiency and resilience of the energy system. The SES advises that for Scotland to meet domestic and international climate change targets, the Government will set a new 2030 'all-energy' target for the equivalent of 50% of Scotland's heat, transport and electricity consumption to be supplied from renewable sources. This

figure was 25.4% as of 2020³. The Scottish Government make it clear in the OWPS that onshore wind is to remain “*crucial in terms of meeting the goals for a decarbonised energy system*”.

The Scottish Government’s 2020 Routemap for Renewable Energy set forth a target of 100% of electricity from renewables by 2020. The Scottish Government estimates that renewable sources generated the equivalent of approximately 90.1% gross electricity consumption in 2019 (Energy Statistics for Scotland Q2 (Scottish Government 2020)). The most recent Renewable Electricity Planning Statistics for Scotland advise that as of June 2020, Scotland had in the region of 11.9 GW of installed renewable energy capacity the majority of which was wind generation projects, an increase of only 0.1 GW since June 2019. Electricity demand is also expected to increase as the UK works towards its net zero targets.

In May 2019, the UK and Scottish Government declared a ‘climate emergency’ and committed to take action in the fight against climate change. The Climate Change (Emissions Reduction Targets) Scotland Act 2019 was passed by the Scottish Parliament in 2019. It amends the Climate Change (Scotland) Act 2009 and set targets to reduce Scotland’s emissions of all greenhouse gases to net-zero by 2045 at the latest, with interim targets for reductions of at least 56% by 2020, 75% by 2030, 90% by 2040. On 16th December 2020, the Scottish Government published Securing a Green Recovery on a Path to Net Zero: Climate Change Plan 2018-2032 (CCP Update). This provides an update to Scotland’s 2018-2032 Climate Change Plan and sets out the Scottish Government’s pathway to what they describe as new and ambitious targets set by the Climate Change Act 2019. The CCP Update clearly recognises the role of electricity generation going forwards stating:

“As Scotland transitions to net zero, a growing and increasingly decarbonised electricity sector is critical to enabling other parts of our economy to decarbonise – notably transport, buildings and industry.”

In response to the Covid-19 pandemic, the Scottish Government established an independent Advisory Group on Economic Recovery who released their report titled “Towards a Robust, Resilient Wellbeing Economy for Scotland” on 22 June 2020. The Advisory Group recommended in their report that there should be prioritisation and delivery of green investment because “the green recovery is central to recovery overall”. It will be important to deliver projects that combine emissions reductions, development of natural capital and creation of jobs. The Environment, Climate Change and Land Reform Committee have launched an inquiry, on behalf of the Scottish Government, to establish the key principles and actions that would help deliver a “green, just and resilient recovery”.

The targets and documents outlined above make clear the importance of renewable energy generation. With an installed capacity of 66 MW, extending the operational period of Galawhistle from 25 years to 35 years would contribute further to the attainment of the UK and Scottish Government policies of encouraging renewable energy developments and in turn, contribute to the achievement of UK and Scottish Government targets for net zero and renewable electricity generation. The extension of the life of the Galawhistle by

³ <https://www.climateexchange.org.uk/media/5153/cxc-expanding-scottish-energy-data-electricity-february-2022.pdf>

10 years after the date it was originally intended to be decommissioned, would mean that the development would continue to produce enough electricity to power approximately 37,397 households annually⁴.

National Planning Policy

The National Planning Framework 3 (NPF3) and Scottish Planning Policy (SPP) were published in 2014. The targets for renewable energy and carbon reduction have increased since they have published, however they are supportive of renewable energy and repowering projects.

The revised draft National Planning Framework 4 (NPF4) was published in November 2022 and will undergo a period of scrutiny before approved and adopted.

National Planning Framework 3

Overall, NPF3 emphasises the Scottish Government's commitment to increasing sustainable economic growth across all areas of Scotland and is supportive of renewable energy developments which are located in the right places.

NPF3 sets out a national spatial strategy structured around four key themes, which includes 'A low carbon Place'. This theme relates to the legally binding target of reducing Scotland's GHG emissions by 80% by 2050 compared with 1990 levels, as set out in the Climate Change (Scotland) Act 2009. It states that: "*Our built environment is more energy efficient and produces less waste and we have largely decarbonised our travel*".

It should be noted that the targets with respect to 'A low carbon place' have now been superseded by The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019.

Paragraph 3.9 of NPF3 states: "*We are making good progress in diversifying Scotland's energy generation capacity, and lowering the carbon emissions associated with it, but more action is needed. Maintaining security of supplies and addressing fuel poverty remain key objectives. We want to continue to capitalise on our wind resource, and for Scotland to be a world leader in offshore renewable energy.*"

Scottish Planning Policy

SPP creates a presumption in favour of development that contributes to sustainable development. Sustainable development is focussed on throughout the SPP. Under the heading of Policy Principles, it states:

"This SPP introduces a presumption in favour of development that contributes to sustainable development";

and Paragraph 28 advises that:

"The planning system should support economically, environmentally and socially sustainable places by enabling development that balances the costs and benefits of a proposal over the longer term. The aim is to achieve the right development in the right place; it is not to allow development at any cost."

⁴ [Renewable electricity output and energy conversion calculators - gov.scot \(www.gov.scot\)](https://www.gov.scot/reforms/energy/renewable-electricity-output-and-energy-conversion-calculators)

Paragraph 29 advises that planning policies and decisions should support sustainable development.

Paragraph 169 outlines the considerations that are relevant for proposals for energy infrastructure development.

Paragraph 170 states: *“Areas identified for wind farms should be suitable for use in perpetuity. Consents may be time-limited but wind farms should nevertheless be sited and designed to ensure impacts are minimised and to protect an acceptable level of amenity for adjacent communities.”*

Paragraph 174 states: *“Proposals to repower existing wind farms which are already in suitable sites where environmental and other impacts have been shown to be capable of mitigation can help to maintain or enhance installed capacity, underpinning renewable energy generation targets. The current use of the site as wind farm will be a material consideration in any such proposals.”*

National Planning Framework 4

With regard to emerging national policy, NPF4 is in the late stages of preparation with the Revised Draft laid in Parliament on 8 November 2022 and will undergo a period of scrutiny before approved and adopted. Once adopted it will form part of the Development Plan and it is intended that it will replace Scottish Planning Policy, albeit the transitional arrangements have yet to be confirmed.

Draft Policy 1 states: *“When considering all development proposals significant weight should be given to the global climate and nature crises.”*

Draft Policy 19 is supportive of extension of life applications and states: *“Development proposals for all forms of renewable, low-carbon and zero emissions technologies will be supported. These include:*

- i. wind farms, including repowering, extending, expanding, and extending the life of existing wind farms.”*

2.7 Pre-Application Consultation

As part of the Section 36 variation application process, and to agree assessment scope, consultation was undertaken with a number of organisations including:

- South Lanarkshire Council (SLC) – EIA Screening response received;
- East Ayrshire Council (EAC) – EIA Screening response received;
- Naturecot – Correspondence and Teams meeting with NatureScot Representative; and
- The Scottish Government Energy Consents Unit (ECU) - Teams Meeting and Screening Opinion.

This consultation assisted in focussing the scope of the application and associated assessment described herein and the key correspondence received from NatureScot.

2.8 Screening

A letter dated 29 June 2022 was issued to the ECU by RSK requesting, on behalf of the Applicant, a screening opinion in respect of a proposed application under s36C of the Electricity Act 1989 to vary the existing consent granted under section 36 of said Act for Galawhistle.

The proposed variation requires to be screened by the Scottish Ministers in accordance with regulation 7 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended) ('the regulations'). Following a request for a screening opinion made under regulation 8(1), Scottish Ministers are required to adopt an opinion on whether the proposed variation is or is not EIA development.

A screening opinion from Scottish Ministers was received dated 06 October 2022. This confirmed that Scottish Ministers are of the opinion that the proposal does not constitute EIA development and that any application submitted for this development does not require to be accompanied by an EIA report.

The issued screening opinion is included in Appendix 2.

2.9 Development Planning Requirements

The original consent for Galawhistle included a planning condition (condition 1, Part 1) which set out that:

“This consent is for a period from the date of this consent until the date occurring 25 years after the Final Commissioning of the Development. Written confirmation of the date of the Final Commissioning of the Development shall be provided to the Planning Authority and Scottish Ministers no later than one calendar month after that event”.

The Applicant wishes to secure planning consent to extend the operational lifetime of Galawhistle for an additional ten years. The wind farm has been operational since March 2017 and the current s36 consent expires in March 2042.

It is not proposed to alter or physically change any aspect of the existing Galawhistle Wind Farm.

Emerging guidance and advice from NatureScot on repowering of existing wind farms recommends that the baseline for the assessment should be the current state of the environment as set out in the EIA regulations. As that is the case for repowering of an existing wind farm where the existing wind turbines would be removed and replaced potentially with different dimensions and layout of turbines, it would seem reasonable that an assessment of extension of life, where there is no physical change to the consented development, should also use the 'current state of the environment' as its baseline.

Whereas repowering generally involves replacement of existing wind turbines and potentially additional works and change to the parameters of the development assessed in the original ES, extension of life does not generally involve a change to any of the parameters of the development other than duration of the consent. The potential for additional significant environmental effects is therefore unlikely. That is the case with the Galawhistle extension of life application. The screening opinion from Scottish Ministers

states that the proposed variation will not have a likely significant effect on the factors specified in regulation 4(3) of the regulations.

It is acknowledged that the cumulative baseline environment has changed since Galawhistle became operational, through the construction of new wind farms. However, Galawhistle is part of the established baseline and the applicants for those new wind farms have been required to assess the cumulative effects of their development with Galawhistle included. It may be assumed that operational and consented wind farms present since Galawhistle became operational have adequately assessed cumulative effects and such effects have been considered acceptable by determining authorities, otherwise those developments would not have been consented with Galawhistle as part of the baseline. Any new applications that come forward during the extended period of life of Galawhistle will need to consider Galawhistle as part of the baseline and any cumulative effects of the new development with Galawhistle will be assessed, giving determining authorities the information required to make a decision.

2.10 Method of Assessment

Consultation was undertaken with a number of organisations to discuss requirements for the Galawhistle life extension Section 36 Variation Application. This consultation which is described in Section 2.7 informed the scope of the assessment to be applied, and is as follows:

- Undertake a desk-based review of the previous Galawhistle application and assessments;
- Review relevant operational environmental monitoring documents;
- Review application documents relating to neighbouring wind farm application proposals;
- Complete additional consultation with NatureScot in respect of any considerations relating to plans for an extended operational period for Galawhistle;
- Undertake ecological, ornithological, and landscape and visual appraisal; and
- Undertake an assessment of potential environmental effects resulting from the new proposed extension period and identify relevant requirements for mitigation.

With specific regard to ecology and ornithology, a baseline review of the existing ecological and ornithological information including post-construction monitoring survey reports was undertaken by RSK Biocensus in September/October 2022 to ascertain whether the site had undergone any significant ecological or ornithological changes since Galawhistle was built.

With respect to landscape, a review of the landscape and visual impact assessment (LVIA) produced in 2010, followed by a review of the wider study area was also undertaken by Stephenson Halliday in September/October 2022 to ascertain whether the site had undergone any significant changes since Galawhistle was built.

The baseline reviews undertaken for ecology and ornithology, and landscape are referred to in the respective sections of this report and the full reviews are provided in Appendix 1.



As stated in Section 2.9 above the baseline for likely effects is considered to comprise the operational site as of the date of this report, that is, with the operational wind farm present. On this basis and given that the proposal is to extend the operational life of an existing wind farm, no additional natural resources such as water, soil or land will be used. Whilst limited waste may be generated by the replacement of parts and servicing of machinery, this will be managed in accordance with existing regulatory requirements and waste management best practice.

In relation to adverse human health impacts, including those which may be caused by climate change and risks from major accidents and disasters, Galawhistle has operated for over five years without any major accidents, pollution incidents or health related incidents being reported. The applicant actively manages the potential root causes of these types of potential problems utilising both their safe system of works, their contractors approved working practices, risk assessments and method statements, qualified engineers and they have a proactive maintenance & component monitoring regime.

Extending the life of Galawhistle is not considered likely to result in any additional risk from major accidents, impacts on human health or disasters.

3 ASSESSMENT OF EFFECTS

3.1 Landscape and Visual Issues

Stephenson Halliday (part of RSK Group) has undertaken a review of the landscape and visual amenity information/documentation listed in this section to inform this s36 variation application.

The full desk-based review of Landscape and Visual effects is provided in the Landscape and Visual Appraisal in Appendix 1, and the main findings are presented in this chapter.

Landscape and Visual Amenity Baseline Review

Reference material

The following information/documents have been used in this review:

- Galawhistle Wind Farm Environmental Statement Volume 1: Written Statement, Chapter 5 – Landscape and Visual Assessment;
- Landscape and Visual Baseline; and
- Local Planning Guidance.

Landscape and Visual Amenity Appraisal Results

The review of the baseline environment and assessment of effects on landscape and visual amenity of the Consented Development, indicates that the proposed development would not result in effects not already assessed and taken into account in the determination of Galawhistle and any subsequent operational and consented cumulative wind farm development in the study area. The proposed development would increase the duration of time in which cumulative effects arising from Galawhistle, in addition to other wind farm development, would be experienced i.e. beyond the year 2042.

The proposed extension of life would not give rise to any significant landscape and visual effects that have not already been assessed as part of the 2010 Galawhistle LVIA or considered as part of the September 2014 variation application which allowed for a greater blade length than was specified in the 2010 ES.

In principle the area is considered suitable for wind farm development. It may also be anticipated that the pattern of wind farm development in the locality will continue to evolve over time in line with the Hagshaw Energy Cluster Development Framework which are due to be formally adopted by EAC and SLC by the end of 2022.

3.2 Ecology and Ornithology Issues

RSK Biocensus has undertaken a baseline review of the existing ecological and ornithological information for the site to inform this s36 variation application. In addition, the available post construction ornithology monitoring reports have also been reviewed during the appraisal process.

The full desk-based review of ecology and ornithology effects is provided in the Ecology and Ornithology Appraisal in Appendix 1, and the main findings are presented in this chapter.

3.2.1 Ecology

Ecology Baseline Review

Reference material

The following information/documents have been used in this review:

- Galawhistle Section 36 Decision Notice Conditions (2012);
- Galawhistle Wind Farm Environmental Statement Volume 1: Written Statement, Chapter 6 – Ecology (Infinis, 2010); and
- Galawhistle Wind Farm Environmental Statement Volume 2: Figures.

Ecology Appraisal Results

Galawhistle Wind Farm ES

Ecological surveys were undertaken during 2008 and 2009 to inform the ES. These were supplemented by a desk-based study which included reviewing information from the ESs for Spireslack, Nutberry and Hagshaw Hill Wind Farms, as well as the draft Cumberhead Long term Forest Plan and various open cast coal sites as these involved surveys of the proposed wind farm site area or the areas adjacent.

The surveys undertaken on the site comprised a phase 1 habitat survey and national vegetation classification (NVC) survey as well as surveys for bats (scoping, roosting activity and foraging activity), badger (*Meles meles*), otter (*Lutra lutra*) and water vole (*Arvicola amphibius*). Surveys for Atlantic salmon (*Salmo salar*) and trout (*Salmo trutta*) were also undertaken.

The ES concluded that, following appropriate mitigation during construction, the only residual effects on habitats would be minor significant effects on wet modified bog, wet heath, dry heath, acid grassland and acid flush. A minor significant effect was also predicted for freshwater interests within the watercourses on site including brown trout and otter and their habitat. During operation, a minor positive effect after enhancement, as a result of a Habitat Management Plan (HMP), was predicted for habitats including freshwater with a minor negative effect predicted for bats and otter before enhancement, increasing to minor positive after enhancement for otter. For decommissioning, similar effects were predicted as for construction.

In conclusion, the residual effects of the wind farm were considered to be minor and not significant following the implementation of specific mitigation and a 25-year habitat management plan.

3.2.2 Ornithology

Ornithology Baseline Review

Reference material

The following information/documents have been used in this review:

- Galawhistle Section 36 Decision Notice Conditions (2012);
- Galawhistle Wind Farm Environmental Statement Volume 1: Written Statement, Chapter 7 – Ornithology (Infinis, 2010);
- Galawhistle Wind Farm Environmental Statement Volume 2: Figures (Infinis 2010);
- Galawhistle Wind Farm Environmental Statement – Technical Appendix 2: Ornithology (Infinis, 2010);
- Galawhistle Wind Farm Environmental Statement – Confidential Appendix 2: Ornithology (Infinis, 2010);
- Consultation response letter from Scottish Natural Heritage (now Nature Scot) dated 18 February 2021;
- Galawhistle Wind Farm – Post-construction Bird Monitoring Plan (RPS, 2017);
- Galawhistle Wind Farm – Ornithological Monitoring Report and figures (Gavia, 2019); and
- Galawhistle Wind Farm – Confidential Ornithology Appendix (Gavia, 2019).

Ornithology Appraisal Results

Galawhistle Wind Farm ES

The Environmental Statement (ES) completed for Galawhistle concluded that there would be some short-term displacement of breeding birds within the wind farm site during construction, but no significant impacts were expected during the operation of the wind farm.

The ES concluded that there would be no significant effects on any of these designated sites or their qualifying species.

Whilst the data within the ES provides a robust initial data set for the ornithology review, the focus of the review relates primarily to the data collated following the consenting of the wind farm as opposed to the original ES and associated surveys. Such data offers two main advantages, those being that it represents the most up to date information in relation to the avian species observed on site and also provides an analysis of any ongoing effects of the wind farm on those species.

Post-construction bird monitoring surveys (2018)

A bird monitoring plan was produced by RPS in February 2017 and updated in September 2018 to outline the agreed post-construction bird monitoring surveys for the wind farm, as detailed above. The plan stated that confirmation that the barn owl and kestrel nest boxes have been installed would be provided in writing to SNH (now NatureScot), South Lanarkshire Council and East Ayrshire Council once completed. The plan also stated that a summary report would be produced on completion of the first two years of post-

construction surveys being undertaken in 2017 and 2018. A detailed report would then be produced following the third year of surveys in 2019.

The report produced following the 2018 surveys concluded that flights of target species were low with most flights recorded being locally breeding curlew and oystercatcher (*Haematopus ostralegus*). The surveys recorded five Schedule 1 species flying through the site, namely osprey (*Pandion haliaetus*), greenshank (*Tringa nebularia*), red kite (*Milvus milvus*), hen harrier and peregrine. None of these species were thought to be breeding on the site or wider survey area in 2018 with flights being mostly transitional flights passing through the wind farm or within the site buffer zone. None of the former known peregrine breeding sites within quarries near the wind farm were found to be in use in 2018 however this was stated to have been perhaps due to late snowfall that year and birds not having the chance to get in to breeding condition. The site was found to still have suitable habitat for barn owl although no evidence of breeding was recorded.

In addition to the above, it was considered that the site still supported a typical upland breeding bird assemblage with low numbers of common waders such as curlew, snipe (*Gallinago gallinago*), lapwing (*Vanellus vanellus*) and oystercatcher as well as passerines such as skylark (*Alauda arvensis*), stonechat (*Saxicola rubicola*), wheatear (*Oenanthe oenanthe*) and meadow pipit (*Anthus pratensis*).

Post-construction bird monitoring surveys (2019)

The 2019 report (produced in 2020) discussed the findings of ornithological surveys undertaken between April and July 2019, inclusive. These surveys included vantage point surveys undertaken from the same locations as in subsequent years, as well as surveys for breeding raptors, upland breeding birds and peregrine falcon. Vole abundance surveys were also undertaken. In addition, nest boxes for barn owl and kestrel were also erected at two locations within the wind farm site and buffer zone.

The 2019 results showed that the number of target species recorded in 2019 was fewer than in 2018. It was reported that this may be due to the warmer than average temperatures in 2018 with 2019 being much wetter. Two of the twelve target species recorded during the vantage point surveys were Schedule 1.1 and Annex 1 species (osprey and merlin) and one was a Schedule 1.2 species (greylag goose). Of these, osprey and greylag goose were recorded as flying at collision risk height with the majority of flights transitional across the site or along the edges of the wind farm boundary. Lapwing, curlew, oystercatcher, snipe, pink-footed goose and herring gull were also recorded flying at collision risk height. Secondary species recorded were raven, other raptors and gull species with 80 % of raven and buzzard flights and 60 % of gull species flights at collision risk height. No collisions of the target species with turbines were observed. Hen harrier (a Schedule 1.1, 1A and Annex 1 species) was recorded during the raptor surveys as well as an individual sparrowhawk, kestrel and buzzard. The monthly monitoring of breeding raptors between April and July revealed that peregrine bred successfully in 2019, unlike in 2018. The owl and kestrel nest boxes were installed prior to the breeding season in March 2019 and monitored again in August 2019 at the end of the breeding season. No evidence of occupancy was recorded.

Following the 2019 surveys, it was concluded that “the wind farm site and wider buffer area continue to support a breeding bird assemblage, typical of the upland species

expected to be present within the habitats across the wind farm. There was a slight increase in the number of breeding bird species recorded and the vole numbers recorded reflect the site's continued presence to support foraging for species such as barn owl, hen harrier, merlin and kestrel".

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Based on the information provided above, it is clear that a considerable amount of data regarding ornithological interests is available from the site. Furthermore, post-construction monitoring surveys on Galawhistle Wind Farm itself have provided substantial additional data to that collected during the planning process and no further concerns in regard to bird species have been raised by these monitoring visits. In regard to non-ornithological receptors, as the turbines and related infrastructure will not be altered, it is not considered necessary to undertake any additional ecology surveys to inform the application for a section 36 variation for an extension of life of the wind farm as no additional habitat will be lost or affected and it is considered highly likely that any species present on or near the site have habituated to the presence of infrastructure and turbines over the 5 years it has already been in operation.

3.3 Scoped out Issues

Other issues have been duly considered however because nothing will materially change for any of them from the baseline situation and measures in place will continue in practice, they have not been considered further. These issues are:

- Cultural Heritage and Archaeology;
- Noise;
- Aviation and Telecommunications;
- Geology and Soils (including peat);
- Hydrology and Hydrogeology;
- Socioeconomics;
- Shadow Flicker; and
- Climate Change

4 SCHEDULE OF MITIGATION

4.1 Introduction

The original assessment of Galawhistle identified a number of impacts that would arise as a result of the proposed development including during the construction, operation and decommissioning phases of the wind farm. Mitigation measures were identified in the Galawhistle ES and developed to counter adverse impacts and reduce the significance of residual effects on the receiving environment.

For the purposes of this assessment, the operational and decommissioning environmental commitments (mitigation measures) specific to Galawhistle that are relevant to its continued operation are summarised in Table 4.1. Responsibility for the delivery of the remaining programme of mitigation relating to operation and decommissioning of Galawhistle sit with Galawhistle Wind Farm Limited as the asset owner.

4.2 Summary of environmental commitments

Table 4.1: Summary of Environmental Commitments

Ref	Issue	Contexts and description of mitigation measure (reference within text)	Timing	Responsible Party
Ecology and Ornithology				
1	Habitat Management	Planning Condition 4 (Part 2) of the issued Galawhistle planning consent, included in Appendix 1, states that no work shall commence on the development until a Habitat Management Plan (HMP) has been submitted to and approved in writing by both Planning Authorities, in consultation with NatureScot, Scottish Wildlife Trust and RSPB. The HMP should set out the habitat enhancement measures to be carried out on site, the aims, objectives and targets of these measures, monitoring requirements, responsibility for implementing habitat works and on reporting and reviewing HMP activities over the lifetime of the development. Once approved the HMP shall be fully implemented.	Operation	Asset Owner
2	Environmental Management	Planning Condition 5 (Part 2) states that no works shall commence on the Development until an Environmental Management Plan (as defined in Section 8.173 of the Environmental Statement), has been submitted to and approved in writing by both Planning Authorities, in consultation with SNH, Scottish Wildlife Trust and RSPB.	Operation	Asset Owner
3	Compliance with the ecological safeguards built within the consent	Planning Conditions 11 and 12 (Part 2) state that the Company shall not amend the site layout without ensuring that the development still conforms to the guidance produced by Natural England on 'Bats and Onshore Wind Turbines, and woodland planting should be undertaken within 50 m of turbines on the Site.	Operation	Asset Owner
Geology and Soils (inc. Peat)				

Ref	Issue	Contexts and description of mitigation measure (reference within text)	Timing	Responsible Party
4	Compliance with decommissioning method statement	Planning Condition 40 (Part 2) states that no later than 18 months prior to the end of the period of consent, or by such later date as may be agreed by both Planning Authorities, the Company shall submit a method statement for the decommissioning of the Development and the restoration of the Site for the approval of the Planning Authorities. Decommissioning in accordance with the approved method statement shall be completed within 12 months of the end of the period of this consent and deemed planning permission or any alternative timescale if agreed by both Planning Authorities in writing and shall include the dismantling and removal from the site of all turbines, buildings and ancillary development.	Decommissioning	Contractor

5 SUMMARY AND CONCLUSIONS

Galawhistle Wind Farm Limited seeks a variation under s36C of the Electricity Act 1989 and the Electricity Generating Stations (Applications for Variation of Consent) (Scotland) Regulations 2013 in order to extend the operational period of Galawhistle from 25 years to 35 years.

Utilising a topic-based structure, this document examines the likelihood of significant effects occurring with particular regard to landscape, ecology and ornithology and concludes that no significant effects are likely to occur as a result of extending the life of Galawhistle. All other environmental effects have been scoped out by virtue of there being no change and no effects predicted in each case. The report concludes by identifying all the operational and decommissioning environmental commitments (mitigation measures) specific for Galawhistle that are relevant to its continued operation.

Whilst the planning consent is due to expire in March 2042, with continued application of management and maintenance measures and controls, it is considered that the wind farm can continue to operate for an additional 10 years with no material change to previously reported impacts.

APPENDIX 1

SUPPORTING INFORMATION

1. Galawhistle Site Layout
2. Galawhistle Wind Farm File Note, Ecology and Ornithology Appraisal, November 2022
3. Galawhistle Wind Farm File Note, Landscape Appraisal, November 2022
4. Decision Notice for Galawhistle Wind Farm, May 2015
5. Galawhistle Wind Farm Environmental Statement Volume 1 – Written Statement
6. Galawhistle Wind Farm Environmental Statement Volume 2 – ES figures and visualisations
7. Galawhistle Wind Farm Environmental Statement – Technical Appendices



APPENDIX 2

CONSULTATION INFORMATION

1. Galawhistle Wind Farm Life Extension Application – Screening Opinion, November 2022