

# GALAWHISTLE WIND FARM LIFE EXTENSION

## EXTENSION OF LIFE LVIA APPRAISAL

Ventient Energy Limited

November 2022

# Contents

1.1	Introduction	3
1.2	2010 Landscape and Visual Assessment	4
1.3	Landscape and Visual Baseline	6
1.4	Local Planning Guidance	9
1.5	Assessment of Effects	9

## Document history

	<b>Name</b>	<b>Date</b>
Author	Ross Allan	November 2022
Technical Reviewer	Kelly Anderson	03 November 2022
Approved	Ross Allan	04 November 2022

## 1.1 Introduction

- 1.1.1 Galawhistle Wind Farm Limited are applying for a s42 variation to increase the 25 year operational life of the Galawhistle Wind Farm (Galawhistle), located approximately 5 km west of Douglas by a further 10 years. The application does not include any proposal to change the existing site infrastructure. Galawhistle comprises a total of 22 turbines. Of these 18 turbines have a hub height of 65 m and blade length of 45 m with a tip height of 110.2 m and 4 turbines have a hub height of 75 m and a blade length of 45 m with a tip height of 121.2 m. The majority of the proposed development is in South Lanarkshire Council (SLC) administrative area with two wind turbines in East Ayrshire Council (EAC).
- 1.1.2 In September 2014 a variation application was submitted to the Scottish Ministers (ECU reference: EC00003123) for several variations to the 2012 consent, as necessary to:
- To formalise use of a 45m blade length within the consented wind turbine blade tip height limits.
  - To amend the overall maximum capacity of the site from 55 MW to 66 MW.
  - To amend the locations of 2 electrical substations and associated infrastructure, and to provide an additional construction compound.
  - To remove the construction compound and laydown area located on Spireslack colliery as part of the Consented Development.
  - To amend wind farm access track layouts, chiefly to replace tracks to wind turbines which previously ran through Spireslack colliery as part of the Consented Development.
  - To realign borrow pits 2 and 3 to accommodate revised track layout, and to include working areas next to all consented borrow pits.
  - The variation was consented in May 2015, and the wind farm was built and became fully operational in March 2017.
- 1.1.3 A desk based review of Chapter 5 Landscape and Visual Assessment of the Galawhistle Wind Farm Environmental Statement (ES) prepared by RPS on behalf of Infinis in 2010, followed by a desk based review of the wider study area, has been undertaken to ascertain whether the site and study area had undergone any significant changes since the original planning application. The desk based review included analysis of aerial imagery and a review of relevant landscape policy and guidance pertinent to the landscape and visual baseline.
- 1.1.4 Since the 2010 ES was published the following relevant guidance and advice has been published and is current:
- East Ayrshire Council. 2018. *East Ayrshire Local Development Plan Non-statutory Planning Guidance East Ayrshire Landscape Wind Capacity Study*.
  - East Ayrshire Council. 2017. *East Ayrshire Local Development Plan Supplementary Guidance Planning for Wind Energy*.
  - East Ayrshire Council. 2015. *East Ayrshire Local Development Plan Background Paper: Sensitive Landscape Areas*.
  - Landscape Institute. 2019. *Visual representation of Development Proposals*.
  - Landscape and Institute and Institute of Environmental Management and Assessment. 2013. *Guidelines for Landscape and Visual Impact Assessment, Third Edition*.
  - NatureScot. 2022. *Landscape Sensitivity Assessment Guidance*.

- Scottish Natural Heritage. 2019. *Landscape Character Assessment in Scotland*.
- Scottish Natural Heritage. 2017. *Siting and Designing Wind farms in the Landscape Version 3a*.
- Scottish Natural Heritage. 2017. *Visual Representation of Wind Farms Version 2.2*.
- Scottish Natural Heritage. 2012. *Assessing the Cumulative Impact of Onshore Wind Energy Developments*.
- Scottish Natural Heritage. 2010. *The Special Qualities of the National Scenic Areas. Scottish Natural Heritage Commissioned Report No. 374 (iBids and Project No 648)*.
- South Lanarkshire Council. 2019. *Tall Wind Turbines: Landscape Capacity Siting and Design Guidance. Addendum to Landscape Capacity Study for Wind Energy 2016*.
- South Lanarkshire Council. 2016. *South Lanarkshire Landscape Capacity Study for Wind Energy*.

## 1.2 2010 Landscape and Visual Assessment

### Landscape character

- 1.2.1 The 2010 ES uses the following published landscape character assessments published by Scottish Natural Heritage (SNH), now NatureScot:
- Ash Consulting Group 1998. *The Borders Landscape Assessment. Scottish Natural Heritage Review No 112*.
  - Land Use Consultants 1999. *Glasgow and Clyde Valley Landscape Assessment. Scottish Natural Heritage Review No 116*.
  - Land Use Consultants 1998. *Ayrshire Landscape Assessment. Scottish Natural Heritage Review No 111*.
  - Land Use Consultants 1998. *Dumfries and Galloway Landscape Assessment. Scottish Natural Heritage Review No 94*.
- 1.2.2 The majority of the proposed development is in the Plateau Moorlands (Glasgow and the Clyde Valley (GCV)) Landscape Character Type (LCT). Four wind turbines in the west of the proposed development are located at the boundary or just inside Plateau Moorlands (Ayrshire) LCT with one wind turbine located in Upland River Valleys (GCV) LCT. These LCT are described in more detail in the 2010 ES with all three being assessed as medium sensitivity to change. The potential effects of the proposed development on landscape character within the 35 km LVIA study area are assessed using 26 viewpoints. Of these, six viewpoints are in Plateau Moorlands (GCV) LCT, one is in Plateau Moorlands (Ayrshire) LCT and two are in Upland River Valleys (GCV) LCT.
- 1.2.3 The 2010 ES identifies the factors listed below in evaluating sensitivity to change.
- 1.2.4 Plateau Moorlands (GCV) LCT – *“Although the large scale, open and exposed character of this landscape indicates a tolerance to change, there is a relative sense of remoteness. Its upland and open nature enables extensive views of the surrounding area (sic) which are of*

*some scenic quality. However the presence of several wind farms (Hagshaw Hill and extension, Black Law and Whitelees (sic)), masts and opencast mining within the LCT detract from its scenic qualities. There are limited distinctive features within this LCT.”*

- 1.2.5 Plateau Moorlands (Ayrshire) LCT – *“The large scale open and exposed character of this landscape indicates a relative sense of remoteness in this LCT. This upland and open landscape enables extensive views of the surrounding area which are of some scenic quality. This landscape has inter-visibility with Southern Uplands LCT, judged to be of high sensitivity. However, the presence [of] large scale manmade features in views of neighbouring areas of landscape, such as Hagshaw Hill and its extension, and the presence of opencast mining within the LCT detract from its scenic qualities.”*
- 1.2.6 Upland River Valleys (GCV) LCT – *“This medium scale landscape has a distinct settled and wooded character contrasting with neighbouring plateau and upland landscapes. The Douglas Valley AGLV covers part of the Douglas Water area within this LCT. The enclosed nature of this valley and the relative scenic qualities of views within and out from Upland River Valleys LCT indicates a sensitivity to change. However the presence of mineral workings, restored land and wind farms in neighbouring landscape go some way to limit the quality of these views and also indicate a tolerance of the landscape to change.”*
- 1.2.7 The 2010 ES assessed the effects on Plateau Moorland (GCV) LCT as significant at the wind farm site and in a part of the LCT coinciding with an area east of the Avon Water where *“...Turbines will reduce the perceived scale of this upland landscape.”*
- 1.2.8 The ES concluded that the effects on Upland Valleys (GCV) LCT would be significant at the wind farm site and not significant in the rest of the LCT as a whole.
- 1.2.9 The ES concluded that the effects on Plateau Moorlands (Ayrshire) LCT would be significant at the wind farm site and in the east of the LCT where Galawhistle wind turbines would *“...Reduce the perceived scale and relative sense of remoteness of this upland landscape.”*
- 1.2.10 The ES also concluded there would be significant effects on Upper River Valleys (Ayrshire) LCT part of which coincides with part of the wind farm access track. The significant effects relate to visibility of the wind turbines and not the direct effects associated with the access track.
- 1.2.11 Effects on all other LCT in the 35km study area were assessed as not significant.

## Landscape designations

- 1.2.12 Effects on national, regional and local landscape designations, including Gardens and designed Landscapes (GDL) were assessed as not significant in the 2010 LVIA ES chapter.

## Visual amenity

- 1.2.13 Regarding effects on visual amenity the 2010 ES assessed effects on nine viewpoints within 12km of the proposed development as being significant. Two of the viewpoints were used to represent views experienced by recreational users with the remaining seven viewpoints used to represent visual amenity experienced from locations at settlements and key routes in the valleys to the east and south of the proposed development.
- 1.2.14 No significant effects on settlements were identified in the 2010 ES.

## Cumulative effects

- 1.2.15 A total of 20 operational, consented and planned wind farms were considered in the Cumulative LVIA (CLVIA). The 2010 ES concluded that cumulative effects on landscape character and landscape designations would not be significant. There would be significant cumulative effects on three viewpoints (viewpoint 3 B7078 near Lesmahagow, viewpoint 23 Coalburn and viewpoint 26 Track north of Galawhistle Burn) although it was judged that the proposed development would improve the visual balance at viewpoint 3 and viewpoint 23.

## 1.3 Landscape and Visual Baseline

### Policy and guidance background

- 1.3.1 As mentioned in section 1.1 of this report, there have been changes to guidance and published baseline documents since the 2010 ES was published. These changes are discussed further below in the context of any changes to the landscape and visual baseline or receiving environment in which Galawhistle is located.
- 1.3.2 The strategic capacity policy considerations relating to the proposed development are:
- Galawhistle is located in an area identified in SLC 2019 Tall Wind Turbines: Landscape Capacity Siting and Design Guidance Addendum to Landscape Capacity Study for Wind Energy 2016 as having Medium capacity for wind turbines 120m to 150m in height and Low to Medium capacity for wind turbines 150m to 250m in height. It is also in an area identified by SLC in their spatial strategy as ‘Group 3 Areas with potential for wind farm development.’
  - The western part of Galawhistle is located in an area identified by EAC as ‘Group 3 Areas with potential for wind farm development.’
  - It is also located in the Hagshaw Energy Cluster which is an established strategic location for large scale renewable energy projects. The Hagshaw Energy Cluster is the subject of a Consultation Draft Development Framework (October 2022) the consultation period for which ends on 9<sup>th</sup> December 2022.

### Key changes to the landscape and visual baseline

#### Landscape Character

- 1.3.3 The four NatureScot landscape character publications used in the 2010 ES have been updated by Landscape Character Assessment in Scotland in 2019 which was a review of all landscape character assessments published by NatureScot at the level of Landscape Character Types.
- 1.3.4 The proposed development is situated in the Plateau Moorlands (GCV) LCT as identified in the 1999 *Glasgow and Clyde Valley Landscape Assessment* which is referred to as LCT 213 Plateau Moorlands – Glasgow & Clyde Valley in the 2019 update. The 2019 description of key characteristics states that there is “...*Extensive wind turbine development...*” and that the sense of apparent naturalness and remoteness has been “...*reduced in places by wind energy development.*” The landscape character description identifies areas of plateau moorland as containing extensive conifer plantations areas of which “...*have been felled to accommodate wind farm development.*” It notes that “...*There has been significant wind energy development*”

*on the Plateau Moorlands, taking advantage of their upland exposure...*” Wind farm development has “...*reduced the perception of undeveloped character...*”

- 1.3.5 The presence of wind energy development and forestry felling are the main differences between the 1999 description of landscape character and the 2019 update.
- 1.3.6 Plateau Moorlands (Ayrshire) LCT is contiguous with Plateau Moorlands (GCV) LCT and is referred to as LCT 078 Plateau Moorland – Ayrshire in the 2019 update. Wind farm development is identified as a feature in the description of key characteristics: “...*Wind farm development on the north-eastern margins.*” And: “...*Open, exposed and rather remote landscape, wild in character/ although this is lessened in places by the presence of wind turbines and associated infrastructure.*”
- 1.3.7 Wind farm development was a consideration in the 1998 publication which included planning guidelines for tall structures including wind energy development. The guidelines advised that wind farm development should avoid key skylines and untamed areas of Plateau Moorlands. The guidelines considered that such development should be encouraged to locate in areas already affected by development or large scale land use changes.
- 1.3.8 The presence of wind energy development is the main differences between the 1998 description of landscape character and the 2019 update.
- 1.3.9 Upland River Valleys (GCV) LCT is to the south of Plateau Moorlands (GCV) LCT and is referred to as LCT 207 Upland River Valley - Glasgow & Clyde Valley in the 2019 update. The landscape character description states that “...*although there are no operational wind farms in this Landscape Character Type, several wind turbine developments appear on skylines in views from within these valleys.*” Some parts of the upper reaches of the LCT are “...*undeveloped, perceived as having a wild character.*” The LCT description refers to the valley of the Douglas Water and identifies a wind farm cluster on the hills to the west of the M74 where it crosses the Douglas Valley as being evident. This cluster includes Hagshaw Hill, Douglas West, Dalquhandy and Galawhistle.
- 1.3.10 The presence of electricity transmission infrastructure and visibility of wind farm development are the main changes to baseline character of the LCT.

#### Landscape designations

- 1.3.11 The key landscape designations within the 35km LVIA study area for Galawhistle are:
- Upper Tweeddale National Scenic Area (NSA) approximately 31km to the east.
  - A number of Gardens and Designed Landscapes (GDL) of which The Falls of Clyde is the nearest approximately 13km to the northeast.
  - Douglas Valley Special Landscape Area (SLA) immediately to the east.
  - East Ayrshire Council Sensitive Landscape Area (SLA) approximately 1km to the southwest and 3km to the west.
  - The nearest Wild Land Area (WLA) is WLA 2 Talla-Hart Fells approximately 31km to the southeast.

## Visual amenity

- 1.3.12 The proposed development is situated at the edge of an upland area which has been modified by mineral workings, forestry and wind farm development. Wind farm developments have coalesced in the area to the north and east of the proposed development and this area is the subject of Hagshaw Energy Cluster Consultation Draft Development Framework (October 2022). The proposed development is visible locally along the A70 and in the vicinity of nearby settlements such as Glespin and Coalburn. There are longer distance views of the proposed development along the River Ayr valley and upland areas to the south used for recreation such as Cairn Table.
- 1.3.13 The 2010 ES includes viewpoints representative of sensitive visual receptors that include residents, road users, walkers and tourists. The main change to the visual baseline since 2010 is the presence of the operational wind farms listed earlier in this Report. With regard to new visual receptor locations there are adopted Core Paths (CP) leading to Hagshaw Hill wind farm from the east, a CP following the north side of the Douglas Valley along a disused railway line and other CP in the valley to the east and west of Glespin and around Douglas. There is a CP between Muirkirk and Glenbuck Loch and CP around Muirkirk and leading into the hills to the south including Cairn Table.
- 1.3.14 For the purposes of this assessment it is considered that the assessment of receptors at Muirkirk, Glespin, Douglas, Coalburn, the Douglas Valley and hills around Cairn Table have been a consideration in the LVIAs undertaken for the wind farm developments that have been constructed or consented in the area adjacent to Galawhistle since 2010 including recently consented (in 2021) Cumberhead West comprising of 21 wind turbines each 200 m in height. The likely impacts on these additional receptor locations has been captured both singly and cumulatively.

## Cumulative wind farm development

- 1.3.15 Since 2010 a number of wind farm developments have become operational or have been consented or a valid planning application has been made. The pattern of wind farm development in the 35 km study area has therefore changed. The key changes have occurred in four clusters of development:
- The area immediately surrounding Galawhistle where Hagshaw Hill and Extension, Cumberhead, Nutberry, Dalquhandy and Douglas West are operational or under construction. The area includes Hagshaw Hill Repowering, Hare Craig, Cumberhead West and Douglas West Extension which are all consented and will comprise turbines between 150 m and 230 m in height. The area is the subject of the Hagshaw Energy Cluster Consultation Draft Development Framework.
  - An area approximately 5km to the south that includes operational wind farms Andershaw Forest, Kennoxhead and Middle Muir; consented Penbreck; and Kennoxhead Extension, West Andershaw, Glentaggart and Bodinglee which are in planning or scoping.
  - An area approximately 8km to the northwest that includes operational Auchrobert, Kype Muir, Kype Muir Extension, Dungavel and Bankend Rig; consented Banked Rig Extension and Mill Rig with Bankend Rig 3 at scoping.

- In addition, there is a notable increase in operational development in the Whitelee area with Whitelee Phase 2, Calder Water and West Browncastle becoming operational since 2010.

## 1.4 Local Planning Guidance

### South Lanarkshire Renewable Energy Supplementary Planning Guidance (SPG) 2021

- 1.4.1 The SPG provides more detail on Policy 18 Renewable Energy in SLC Local Development Plan 2 (LDP2). Policy 18 is informed by the Landscape Capacity Study for Wind Energy Development 2016 and its Addendum Tall Wind Turbines: Landscape Capacity Siting and Design Guidance 2019. The SPG shows the spatial framework for wind energy development which indicates that the proposed development is located in ‘Group 3 Areas with potential for wind farm development.’
- 1.4.2 The 2016 capacity study indicates that there is Medium capacity for wind turbines over 120m in the LCT in which the proposed development is located. Figure 6.3 of the capacity study indicates that the area coinciding with the proposed development is an area of significant cumulative development with limited capacity for further development. It states that *“...consented developments have utilised much of the capacity and exceed capacity in some areas. There is some scope for further discrete developments in peripheral locations, well separated from existing windfarms. Careful consideration should be given to limiting turbine size in locations with more modest distinctions in landform.”*

### East Ayrshire Local Development Plan Supplementary Guidance Planning for Wind Energy 2017

- 1.4.3 The East Ayrshire Supplementary Guidance (SG) sets out the spatial strategy for wind energy in East Ayrshire and indicates that the area coinciding with the proposed development is Group 3 Areas with potential for wind farm development’. The 2017 SG is informed by East Ayrshire Landscape Wind Capacity Study 2013 which was revised and updated in 2018. The 2018 study indicates there is very limited scope for wind turbines greater than 70m in the LCT in which the proposed development would be located.

### Hagshaw Energy Cluster Development Framework Consultative Draft

- 1.4.4 Hagshaw Energy Cluster Development Framework Consultative Draft (October 2022) sets out a 10 year vision for the future development of renewable energy technologies at the Hagshaw Energy Cluster location. The Development Framework will be used by EAC and SLC *“...as a basis for working with developers, landowners, communities and other stakeholders to promote and adopt a coordinated approach to future renewable energy development across the cluster.”* The proposed development falls within the Hagshaw Energy Cluster area.

## 1.5 Assessment of Effects

- 1.5.1 This section describes an assessment of the proposed development on landscape and visual amenity. The proposed development is an extension of life of the existing Galawhistle wind farm from 25 years to 35 years meaning that the wind farm would be operational until 2052.

The proposed development would not result in the installation of any additional wind turbines. The existing wind turbines would remain at their current positions and would not be increased in height. The existing tracks and ancillary development would remain unaltered and would be subject to maintenance and repair during the operational period of the proposed development. The proposed development would not result in additional scheduled maintenance trips to the wind turbines on the existing access tracks.

- 1.5.2 The main effect of the proposed development would be to extend the duration of effects on landscape and visual resources.
- 1.5.3 New guidance and advice relevant to landscape and visual assessment of wind energy development has been published since the Galawhistle ES was prepared in 2010. The landscape and visual baseline has changed primarily by the construction of new wind farms in the 35 km LVIA study area used in the 2010 ES and particularly in the Plateau Moorlands (GCV) LCT.
- 1.5.4 Regarding policy and designations which were not considered in 2010 the following are of most relevance:
- EAC and SLC Supplementary Guidance as noted above.
  - The emerging Hagshaw Energy Cluster Development Framework.
  - East Ayrshire Council. 2015. East Ayrshire Local Development Plan Background Paper: Sensitive Landscape Areas.
  - A description of the special qualities of National Scenic Areas published by SNH in 2010;
  - Publication of a map of Wild Land Areas by SNH in 2014 and subsequent descriptions in 2017.
- 1.5.5 While these matters were not a consideration in the 2010 ES there was a thorough assessment of the underlying landscape character baseline and an assessment of effects on visual amenity. In addition, these matters have been a consideration in the determination of the cumulative wind farm developments mentioned above including Cumberhead West windfarm consented in 2021.
- 1.5.6 The review of the baseline environment and assessment of effects on landscape and visual amenity of the proposed 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.

- 1.5.7 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 being formally adopted by EAC and SLC by the end of 2022.
- 1.5.8 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.