
2. SCHEME NEED AND ALTERNATIVES 2-1

2.1 Need for the Project 2-1

2.2 Consideration of Alternatives 2-2

2.3 References 2-2

2. Scheme Need and Alternatives

2.1 Need for the Project

- 2.1.1 In order to meet international obligations, the UK government is committed to reducing greenhouse gas emissions in an effort to reduce the level of future climate change. Further detail is provided in Chapter 6 of this EIA Report and in the Planning Statement which accompanies the section 36C application. As the UK has one of the windiest climates in Europe, it has great potential to generate electricity from wind power, and, if constructed, the Revised Consented Development would provide an increased contribution towards renewable generation capacity in comparison to the Consented Development. The Scottish Government have stated that onshore wind is now amongst the lowest cost forms of power generation of any kind and is a vital component of the huge opportunity that renewables create for Scotland. Further, it states that energy and climate change goals mean that onshore wind must continue to play a vital role in Scotland's future¹.
- 2.1.2 Scottish renewable energy targets have increased in recent years. The Scottish Government's target was to achieve 100% of gross electricity consumption from renewables by 2020 with net zero targets of all greenhouse gases by 2045. In March 2021, the Scottish Government stated that in 2019, 24% of total Scottish energy consumption came from renewable sources². Therefore, there is a recognised need to dramatically increase renewable electricity generation, with onshore wind identified by the Scottish Government as being of critical importance. A significant increase in wind energy capacity will be required if Scotland is to achieve its ambition to reduce greenhouse gas emissions to a net-zero state by 2045 and the Revised Consented Development would contribute substantially in achieving these targets.
- 2.1.3 Based on the candidate turbine the Revised Consented Development will have an installed capacity of 88.2MW. This would be a 40% increase in the installed capacity of the Consented Development using its candidate turbine. We would note however, that in reality another turbine make or model with a different installed capacity might be used, both for the Revised Consented Development as well as for the Consented Development (but still within the design limits of the applicable consent, for example, maximum tip height). For the Revised Consented Development we would expect to install a turbine with a higher installed capacity than the installed capacity of the proposed candidate turbine.
- 2.1.4 The Scottish Government's Onshore Wind Policy Statement (December 2017) supports the use of larger turbines where they are appropriately sited. The Applicant considers that the Development Site and the surrounding landscape have the capacity to support the larger turbines proposed.
- 2.1.5 It is noted that national planning and energy policy makes it clear that there is no requirement for renewable energy developments to demonstrate an overall need for new renewable generation or a need to justify them being in a specific location over

¹ The future of energy in Scotland: Scottish energy strategy - <https://www.gov.scot/publications/scottish-energy-strategy-future-energy-scotland-9781788515276/pages/5/>

² Energy Statistics for Scotland – Q4 2020 Figure
<https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2018/10/quarterly-energy-statistics-bulletins/documents/energy-statistics-summary---march-2021/energy-statistics-summary---march-2021/govscot%3Adocument/Corrected%2B-%2BScotland%2BEnergy%2BStatistics%2BQ4%2B2020%2B-%2B25%2BMarch%2B2021.pdf>

other locations (though environmental impacts resulting from development of the chosen site must be acceptable).

2.2 Consideration of Alternatives

2.2.1 The EIA Regulations make two references to the consideration of alternatives, as follows.

- In regulation 5(2)(d) of Part 1 it states that an EIA Report should include "a description of the reasonable alternatives studied by the developer, which are relevant to the development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment"; and
- Paragraph 2 of Schedule 4 states that an EIA Report should include "A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects."

2.2.2 In terms of the Revised Consented Development, this EIA Report is inherently compliant with the requirements relating to alternatives under the EIA Regulations since it outlines the likely effects on the environment arising from an alternative to the consented Limekiln Wind Farm. Each technical chapter of this EIA Report sets out how the effects of the Revised Consented Development differ (if at all) from the effects of the Consented Development, as reported in the 2012 and 2016 ES and 2017 Supplementary Information (SI).

2.2.3 The amendments to the Consented Development are proposed as a result of the refusal of a Section 11 application to THC for temporary closure for health and safety reasons of the existing Core Path (CA11.03 Limekiln Forest), along which it was proposed to take access for the Consented Development. In addition, changes in available technology since the section 36 application was submitted mean that a modest increase in the height and rotor diameter of the turbines, along with an increase in the period of consent, would allow a large increase in the renewable energy generation capacity. The Revised Consented Development would therefore make a greater contribution to UK and Scottish Government renewable energy targets than the Consented Development.

2.2.4 The Site Selection and Design Evolution Sections of the 2012 ES and 2016 ES and 2017 SI (within Chapter 2 for the 2012 and 2016 ES and Chapter 3 of the 2017 SI See **Appendix 2.A and Appendix 2.B**) describe the Development Site identification process and design criteria. The examination of alternative layout designs in Chapters 2 of the 2012 ES and 2016 ES and Chapter 3 of the 2017 SI (e.g. alternative turbine numbers and locations) and Section 2.2.2 of this EIA Report is considered to be compliant with the EIA Regulations, which require reasonable alternatives that have been considered by the developer to be reported.

2.3 References

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations). http://www.legislation.gov.uk/ssi/2017/101/pdfs/ssi_20170101_en.pdf

Scottish Government Onshore Wind Policy Statement (December 2017)
<https://www.gov.scot/Resource/0052/00529536.pdf>