



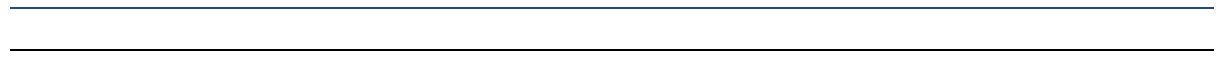
**Ridge Clean Energy
have played a pivotal
role in bringing the
Inveraray Pier back into
community ownership.**

Environmental Impact Assessment – Design and Access Statement

Ladyfield Renewable Energy Park

October 2023

Project No.: 0669622



CONTENTS

1	INTRODUCTION	1
	1.1 Background	1
	1.2 The Applicant.....	1
	1.3 The Role and Purpose.....	1
2	THE DEVELOPMENT	2
	2.1 Overview	2
	2.2 Development Description	2
3	THE DESIGN STATEMENT	4
	3.1 Site Selection.....	4
	3.2 Rationale for the Development	5
	3.3 The Site.....	7
	3.4 Surrounding Land Use	7
	3.5 Site Design	8
	3.6 Pre-Application Consultations.....	9
	3.7 Design Evolution.....	10
	3.8 Summary	15
4	THE ACCESS STATEMENT	15
	4.1 Route to Site.....	15
	4.2 Site Entrance/ Vehicle Access	16
	4.3 Construction Traffic Management Plan.....	17
	4.4 Traffic Volume	17
	4.5 Existing Core Paths	17
5	CONCLUSION.....	18

1 INTRODUCTION

1.1 Background

This Design and Access Statement (the DAS) has been prepared by Arcus Consultancy Services Ltd (Arcus), on behalf of Ladyfield Renewable Energy Park Ltd (the Applicant), to accompany the planning application submitted to Scottish Ministers under Section 36 of the Electricity Act 1898, for the installation, operation and decommissioning of Ladyfield Renewable Energy Park ('the Site'), comprising up to 13 wind turbines with a capacity of up to 58.5 MW, a Battery Energy Storage System (BESS) with a capacity of up to 41.4MW and other associated infrastructure ('the Development'). The combined capacity of the wind turbines and BESS would not exceed 99.9 MW.

The Development is located approximately 4.7 km north of Inveraray, centred on National Grid References (NGR) 210197, 715498. The Planning Application boundary is made up of an area of approximately 790 hectares ('ha'). EIA Report Volume 2a Figure 1.1: Site Location Plan presents the location of the Development.

The Development will have a construction period of approximately 24 months and the Applicant is seeking planning permission for up to 40 years.

1.2 The Applicant

The Applicant is Ladyfield Renewable Energy Park Ltd, a wholly owned subsidiary of Ridge Clean Energy Ltd (RCE), a well-funded, UK-based clean energy company whose team have developed, constructed, and operated clean energy projects in the UK since 2003.

Working in partnership with landowners and local communities, RCE's team identifies and develops new projects to supply clean energy to UK homes, businesses, and other power consumers. The RCE team have a wealth of experience with community engagement support and have created a range of local initiatives in small towns and villages that focus on improving community value. Their work was instrumental in helping Inspire Inveraray raise money to purchase and restore the Inveraray Pier.

1.3 The Role and Purpose

This DAS provides information on the principles and approach that have guided the design process for the Development. It demonstrates how the area within the site boundary (the Site), as detailed in Section 2, and its surroundings have been fully appraised to ensure that the final design solution achieves a balance across a range of factors which are required to be addressed. It describes the starting point for the design of the Development, the various factors that have driven the design process, and subsequent iterations to the layout that were made in response to the environmental and technical considerations identified during the EIA Scoping process and in the preparation of the EIA Report.

This DAS should be read in conjunction with the EIA Report, Planning Statement, and other documents supporting the Application.

This DAS has been prepared in accordance with Regulation 13 of the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013¹ ('the DMP') which sets out the detailed requirements of the content of a DAS in relation to planning permission.

The requirements under Regulation 13 of the DMP cover both design and access, allowing applicants to demonstrate an integrated approach that will deliver inclusive design, and address a full range of access requirements throughout the design process.

¹Scottish Government (2013) *Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013* (Online) Available at: <http://www.legislation.gov.uk/ssi/2013/155/regulation/13/made> (Accessed 28/06/2022)

The role and purpose of the DAS, in accordance with Regulation 13 of the DMP, is to:

- Explain the design principles and rationale that have been applied to the Development;
- Demonstrate the steps taken to appraise the context of the Development, and how the design of the Development takes that context into account;
- Explain the policy adopted as to access, and how policies relating to access in relevant local development documents have been taken into account;
- State what, if any, consultation has been undertaken on issues relating to access to the Development and what account has been taken of the outcome of any such consultation; and
- Explain how any specific issues which might affect access to the Development have been addressed.

This DAS has also been prepared in accordance with guidance included within the Planning Circular 3/2013: Development Management Procedures ('the Circular') Part 3, 'Preparation of Statements', Paragraphs 3.23-3.30. This section sets out the requirements for what must be included within the contents of a DAS.

Paragraph 3.24 of the Circular states that:

"A design statement is a written statement about the design principles and concepts that have been applied to the development and which –

Explains the policy or approach adopted as to design and how any policies relating to design in the development plan have been taken into account.

Describes the steps taken to appraise the context of the development and demonstrates how the design of the development takes that context into account in relation to its proposed use.

States what, if any, consultation has been undertaken on issues relating to the design principles and concepts that have been applied to the development; and what account has been taken of the outcome of any such consultation".

This DAS is structured as follows:

- Section 2 – The Development;
- Section 3 – The Design Statement;
- Section 4 – The Access Statement; and
- Section 5 – Conclusion.

2 THE DEVELOPMENT

2.1 Overview

The Applicant is seeking planning permission for the construction and operation of a Windfarm, Battery Energy Storage System (BESS) and associated infrastructure.

2.2 Development Description

The Development would comprise up to 13 three-bladed horizontal axis turbines up to 180 metres (m) tip height and all associated infrastructure, including Substation Compound (comprising of Substation and Control Building, BESS and ancillary infrastructure), crane hardstandings, underground cabling, Temporary Construction Compound (TCC), an extension of one existing borrow pit, and temporary laydown areas.

The key parameters of the Development components, as shown on the Indicative Site Layout (EIA Report Volume 2a Figure 2.1), are outlined in Table 2.1 below.

The Development will have an operational lifespan of up to 40 years from full commissioning of the proposed turbines. Following this, an application may be submitted to retain or replace the turbines and BESS, or alternatively they will be decommissioned.

Further details on the Development and how the final design was achieved is described in Section 3 of this statement.

Table 2.1 – Key Parameters of the Development

Element	Details
Turbines	<p>13 turbines, each with a tip height of up to 180 m, with a capacity up to 58.5 MW.</p> <p>Each turbine may require a small transformer located at its base.</p> <p>Each turbine will have a foundation with an approximate diameter of 25 m with the exact size and nature of foundations being subject to detailed design following post consent intrusive Site Investigation studies.</p>
Access Track	<p>Access track to serve the construction and operation of the wind farm with width approximately 5.5 m, this will consist of a combination of upgraded track and newly construction track. New tracks will be constructed of a graded stone or floated, as appropriate for the ground conditions.</p>
Electrical Infrastructure	<p>A substation and control building will be located approximately 0.66km west of T6. The substation and control building will be located within a compound, shared with the Battery Storage Energy System, measuring just under 1 hectare (ha), which will also include any external electrical infrastructure and vehicle parking.</p> <p>Underground cabling, laid where possible alongside the access tracks, will link the turbine transformers to the onsite substation.</p>
Battery Energy Storage System	<p>The project will have a BESS with a capacity up to 41.4 MW located adjacent to the on-site substation on the same compound which is just under 1 ha, and approximately 0.66km west of T6.</p>
Crane Hardstanding	<p>Crane hardstandings will be required adjacent to each turbine, this will consist of an area of approximately 3,450 m² at each turbine. In addition to the main hardstanding area, there will be additional flattened areas for crane assembly; however, these will be temporary and not constitute hardstanding.</p>
Temporary Construction Compound	<p>Two temporary construction compounds will be required during the construction of the Development, forming an area of hardstanding providing space for temporary welfare, parking, lay down areas and potentially concrete batching. These both will measure approximately 45 m x 30 m. One TCC is located in the north of the Site, adjacent to the north of the compound housing the Substation and BESS. The other TCC is located in the south of the Site, adjacent to the existing MoD kiosk and Quarry.</p>
Existing Quarry	<p>The project will include a 50m x 40m extension to the existing quarry located at NGR 209387, 714173.</p>

Element	Details
Forestry Felling	<p>Argyll Estates (the 'Landowner') is currently undertaking felling operations within the Site under their approved Long Term Felling Plan (LTFP) and irrespective of the Development intends to fell areas within the Site in accordance with their LTFP.</p> <p>The Development is not considered likely to start construction earlier than 2025. Therefore, for future baselines within assessments in this EIAR, felling scheduled for 2025 or earlier has been assumed to have been undertaken and completed. Any forestry compartments scheduled for felling beyond 2025, are assumed (within future baselines) to be existing at the point of construction and thus could be affected by the Development.</p> <p>As the precise timescale for felling is not within the control of the Applicant, this approach is considered a worst-case scenario. The Applicant would have been content with a targeted approach of differential or 'keyhole' felling to facilitate the Development but given the intentions of the Landowner, this worst-case scenario has been adopted for all assessments.</p> <p>In accordance the Landowner's LTFP, restocking will take place within areas felled under their LTFP, whilst taking account of the wind turbine keyhole areas, tracks and associated infrastructure undertaken as part of the Development.</p> <p>For the purposes of this EIAR, the areas of felling considered to be covered by the Landowners LTFP and the felling considered as part of the Development.</p> <p>The Development will require the felling of approximately 79.3 hectares (ha) of existing forestry. There will be replanting on-site, however off-site compensatory planting of 48.7ha will be required.</p>

3 THE DESIGN STATEMENT

3.1 Site Selection

The Applicant uses a range of criteria to select sites for the development of renewable energy projects. As part of the growth plans for the development of renewable energy projects, the Applicant is continually assessing potential sites. For obvious reasons, the pipeline of available opportunities is confidential, but such sites are not to be considered as alternatives to the Development. Alternative sites are not considered further in the EIAR. However, in accordance with Schedule 4(2) of the EIA Regulations, reasonable alternatives in terms of development design, technology, location, size and scale of the Development have been considered.

The Site was considered to be a suitable location for wind farm development by the Applicant as it met the following criteria:

- There are no international or national ecological, ornithological, landscape or cultural heritage designations within the Site.
- The Site has a viable grid connection (less than 5 km to the Point of Connection from the Site).
- The Site has suitable access on the public roads network from the Port of Entry at Corpach, near Fort William, to the Development.
- The Site has an existing quarry on site which can be utilised for material to construct or upgrade tracks within the Site to minimise construction traffic.
- The Site has a suitable wind yield.
- The Site has a limited Zone of Theoretical Visibility (ZTV), especially to the populated areas and restricted views on transport routes and recreational routes.

- The Site is currently a working timber landscape with limited development opportunity due to known Unexploded Ordnance on Site.
- The landowner is willing to host the wind farm Development; and
- The Site is sufficiently distant from the nearest residential properties to ensure compliance with ETSU-R-97 noise limits.

In addition, NPF4 and the Onshore Wind Policy Statement provides that, subject to compliance with NPF4 Policy 4, renewable energy developments will be supported in principle. Policy 1 of NPF4 now makes clear that when considering impacts, many of which are inevitable with onshore wind farms, "significant weight will be given to the global climate and nature crises".

To assist developers with maximising opportunities for renewable energy generation, Argyll and Bute Council has published the Argyll and Bute Landscape Wind Energy Capacity Study (ABLWECS) which includes a landscape and visual sensitivity appraisal of Argyll and Bute, and which identifies potential strategic capacity for wind energy development of different scales within each of 38 defined landscape character types. The majority of the Site, including the extent of which is occupied by the proposed turbines, is located within ABLWECS Landscape Character Type 6a (LCT6a): Loch Fyne Upland Forest Moor Mosaic. Areas of the western area of the Site may also be located within LCT20: Rocky Mosaic. LCT6a is identified as being of high landscape character sensitivity to very large-scale wind farm development.

The Argyll and Bute Landscape Wind Energy Capacity Study indicates that LCT6a is one of five LCTs that may be suitable for very large turbines (defined as turbines greater than 130 m tall), with Table 3 within the ABLWECS noting that:

- "LCT's that may be suitable for very large turbines >130m:
- Detailed Sensitivity assessments for the very large typology (>130m high) were only undertaken for landscape character types judged to have a medium or lower sensitivity to large turbines (80-130m) in the 2012 ABLWECS and/or landscapes where operational wind farms are already located. These are:
 - Steep Ridgeland and Mountains (2)
 - Upland Forest Moor Mosaic (6)
 - Loch Fyne Upland Forest Moor Mosaic (6a)
 - Knapdale Upland Forest Moor Mosaic (6b)
 - Craggy Upland (7)."

This information together with NPF4, the OWPS and relevant development plan policies in the Argyll and Bute Local Development Plan and emerging policies in the LDP2 has played an important role in informing the Site selection process and guiding the Applicant towards both the Site and final layout.

3.2 Rationale for the Development

The use of the Development is intended to support Scottish Government's commitments to reduce emissions of greenhouse gas emissions to combat the effects of climate change.

The fourth National Planning Framework (NPF4), adopted in February 2023, also sets out a national spatial strategy for Scotland to 2045, stating '*Scotland's future places will be net zero, nature-positive places that are designed to reduce emissions and adapt to the impacts of climate change, whilst protecting, recovering and restoring our environment.*' NPF4 recognises that: '*Meeting our climate ambition will require a rapid transformation across all sectors of our economy and society. This means ensuring the right development happens in the right place.*'

The NPF4 is clear that planning has a key role in supporting renewable energy and associated infrastructure. Paragraph 152 proposes that the planning system should '*support the transition to a low carbon future in a changing climate*' and '*support renewable and low carbon energy and*

associated infrastructure. The Government has set ambitious targets for reduction of carbon emissions. Projects, such as the Development play a key role in aiding the decarbonisation of the energy sector. It requires that:

"The Scottish Ministers must ensure that the net Scottish emissions account for the year—

(a) 2020 is at least 56% lower than the baseline,

(b) 2030 is at least 75% lower than the baseline, and

(c) 2040 is at least 90% lower than the baseline."

The Scottish Government published Scotland's Energy Strategy Position Statement (2021 SES)² which builds on the support for onshore wind outlined in the 2017 SES. The 2021 SES notes that:

"The Scottish Government is committed to supporting the increase of onshore wind in the right places to help meet the target of Net Zero. In 2019, onshore wind investment in Scotland generated over £2 billion in turnover and directly supported approximately 2,900 full-time equivalent jobs across the country."

Policy 11 'Energy' of NPF 4 seeks to:

"encourage and facilitate all forms of renewable energy development onshore and offshore..." seeking to expand renewable, low-carbon and zero emissions technologies. Policy 11 (e) specifies that project design and mitigation will need to demonstrate how certain impacts are addressed. Table 3.1 of this DAS demonstrates how the design and mitigation measures implemented as part of the Development address these.

The Onshore Wind Policy Statement 2022 recognises that onshore wind remains vital to Scotland's future energy mix and that more will be needed in order to progress legally binding net-zero targets. The statement sets an overall ambition of 20 GW of installed onshore wind capacity in Scotland by 2030. The Scottish Government is therefore seeking views on an ambition that an additional 8 to 12 GW of onshore wind capacity should be installed in Scotland by 2030 to help achieve Net Zero commitments.

Scotland's Draft Energy Strategy and Just Transition Plan³ then sets out the Scottish Government's vision for the future energy system in Scotland, to 2030 and beyond. The strategy also aims to deliver at least 20 Gigawatts of additional low-cost renewable electricity capacity by 2030, which could generate the equivalent of about 50% of Scotland's current total energy demand. For key sectors, such as onshore wind, the strategy aims to increase electricity generation from 8.78 GW, as of June 2022, to over 20 GW by 2030, which is more than double our existing capacity.

On 12 December 2015, 196 Parties to the UN Framework Convention on Climate Change (UNFCCC) adopted the Paris Agreement, a legally binding framework for an internationally coordinated effort to tackle climate change. The Paris Agreement's key aim is to strengthen the global response to climate change by keeping a global temperature rise this century below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius⁴. The UK is legally bound through commitment to the Paris Agreement. The Development will relate to the generation of electricity from renewable energy sources and comes as a direct response to national planning and energy policy objectives.

The Development will contribute to the attainment of emissions reduction, renewable energy production and storage and electricity targets at both the Scottish and UK levels.

² Scottish Government (2021) Scotland's Energy Strategy Position Statement [Online] Available at: <https://www.gov.scot/publications/scotlands-energy-strategy-position-statement/documents/> (Accessed 15/12/2021)

³ Scottish Government (2021) - Draft Energy Strategy and Just Transition Plan [Online]. Available at: [Draft Energy Strategy and Just Transition Plan \(www.gov.scot\)](https://www.gov.scot/publications/draft-energy-strategy-and-just-transition-plan/documents/) (Accessed 30/08/2023)

⁴ UNFCCC 2018 Paris Agreement Overview [online] Available at: <https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement> (Accessed 15/12/2020)

Further detail of relevant Energy and Climate legislation and policy is set out in Chapter 4 of the EIA report and a full assessment of the Development, against the relevant international and local policies and framework, is contained within the accompanying Planning Statement.

3.3 The Site

The Development is situated approximately 4.7 km north of Inveraray, centred on National Grid References (NGR) 210197, 715498. The Site covers an area of approximately 790 hectares (ha) and lies wholly within the administrative boundary of Argyll and Bute Council.

No public roads are located within the Site. Nearby major roads include the A819 directly to the West of the Site and the A83 to the south. The B840 also joins the A819 approximately 4.9 km to the north of the Site.

There are a number of watercourses within the Site, all of which drain to the west into River Aray, which continues to flow south from the Site before discharging into Loch Fyne.

The elevation of the Site ranges from 470 metres (m) Above Ordnance Datum (AOD) in the east of the Site and falls to around 100 m AOD in the west of the Site. There are a number of notable hilltops and ridges within and surrounding the Site with the ridge Ceann Chreagan located in the south of the Site. Hills in the vicinity of the Site include Stuc Scardan (487 m AOD) directly east of the Site, and Tom an Fheidh (237 m AOD) directly north to the Site.

The Site will be accessed via two access points off the A819. A new access junction is proposed at NGR 209101, 716517, to be constructed in the north of the Site, as part of the Development. Secondly, an existing access junction at NGR 208923, 713010 would be upgraded and the existing crossing over the River Aray would be replaced with a new bridge.

Both access points would be capable of accepting turbine blades and components and although it is likely that only one would be used for turbine component delivery, both are assessed as such within the EIAR.

3.4 Surrounding Land Use

The land use surrounding the Site similarly consists of private forestry plantation used for commercial purposes with areas of upland moorland also present in the south and east of the Site.

As noted above, the nearest settlement is Inveraray, approximately 4.7 km to the south. While there are a number of dispersed residential properties surrounding the Site, there are no residential properties within the Site and no properties within 1 km of the proposed turbine locations.

There are several properties surrounding the Site, including (but not limited to):

- Ladyfield Farm, located approx. 1.1 km northwest of the nearest turbine (T11);
- North Tullich, located approx. 1.3 km west of the nearest turbine (T6);
- Kennels Cottage, located approx. 1.3 km west of the nearest turbine (T6);
- South Tullich, located approx. 1.6 km west of the nearest turbine (T11);
- Drimfern, located approx. 1.7 km west of the nearest turbine (T11);
- West Drimfern, located approx. 1.8 km west of the nearest turbine (T11);
- Druim Breac, located approx. 1.9 km west of the nearest turbine (T11);
- Stronmagachan, located approx. 1.9 km southwest of the nearest turbine (T11); and
- Linnieghluttain, located approx. 2.3 km southwest of the nearest turbine (T11).

There are 51 Scheduled Monuments within 15 km of the Site Boundary; the nearest Scheduled Monument is Inveraray Castle, Cross (SM253), located approximately 5.6 km south of the nearest indicative turbine location (T13).

There are also 190 Listed Buildings within 15 km of the Site Boundary, of which 45 are Category A Listed Buildings; the nearest Category A Listed Building is Inveraray Castle Estate, Maam

Steading (LB11518), located approximately 2.7 km southeast of the nearest indicative turbine location (T13).

The nearest Listed Building is Category B Glen Aray School and Outhouse (LB11523), located directly south of the Site boundary, and 1.6 km southwest of the nearest indicative turbine location (T11).

Sensitive landscape receptors include the Inveraray Garden and Designed Landscape is Inveraray Castle (GDL00223) which is located approximately 2.1 km south of the Site at its closest point; Ben Lui Wild Land Area (WLA) located a minimum of 5 km to the northeast; and the Loch Lomond and the Trossachs National Park located approximately 11 km southeast of the Site at its closest point.

There are several areas of Ancient Woodland surrounding the Site, with two small areas designated as Ancient Woodland to the west of the proposed turbine array, and an area adjacent to the southern access and new crossing over the River Aray.

The above designations are discussed and assessed as necessary within the relevant technical chapters of the EIA Report.

3.5 Site Design

The design of a wind energy development is driven by the key objective of positioning turbines so that they capture the maximum energy possible within a suitable area determined by environmental and technical constraints. Wherever possible, the design strategy for the Development has taken the following design approach:

- Limiting the number of turbines visible at key locations.
- Limiting the overall visibility of the wind farm as much as possible, especially on key cultural receptors.
- Maximising the use of existing tracks.
- Optimising the layout with respect to wind resource and environmental constraints.
- Optimising the layout with regard to topography.
- Limiting the physical extent of the wind farm; and
- Avoiding areas of deep peat.

The key constraints to onshore wind farm site design which need to be taken into account during the design process include:

- Visibility from sensitive receptors, including nearby properties, settlements and designated landscape. Wind farm layouts are designed to optimise aesthetics from key viewpoints, taking account of landscape character types and the topography in, and around, the Site;
- Presence of sensitive habitats and protected species;
- Presence of sensitive ornithological species and buffer zone from the Glen Etive and Glen Fyne Special Protection Area (SPA);
- Presence of watercourses, Private Water Supplies (PWS) and related infrastructure;
- Presence of cultural heritage features and the perceived interaction between these (e.g., sightlines);
- Proximity to noise sensitive receptors;
- Presence of deep peat;
- Ground conditions and topography; and
- Visibility from key recreational and tourist routes.

The design strategy and how the Development has overcome the key environmental and technical constraints, has been developed taking into account the spatial strategy and aims set out in NPF4 and the OWPS. The design strategy has also been influenced by relevant development plan policies in the Argyll and Bute Local Development Plan and emerging policies in the LDP2.

For further details on the design strategy and environmental and technical constraints, and how this influenced the design of the Development is referred to Chapter 2 and 3 of the EIA Report.

3.6 Pre-Application Consultations

A Pre-application Consultation Report (PAC Report) has been prepared for the proposed Ladyfield Renewable Energy Park, which describes the methods of Pre-application Consultation which have taken place, including public exhibitions and meetings. The PAC Report also details all the Community Partnership work that the Applicant has carried out to date.

In May 2021, the Applicant contacted the local Community Council (Inveraray Community Council), to introduce the company, the Development, and to offer their assistance with community projects. The Applicant also made early contact with other key stakeholders in the area, namely Argyll and Bute Councillors, the local MP, and the local MSP.

For the Pre-application Consultation, the Applicant decided to conduct three rounds of public consultation.

All feedback from each round of public consultation was collated and analysed by the project team. During the First Round of Public Consultation, there were no comments received that had an impact on the site design, but from the Second Round of Public Consultation onwards, comments received from members of the public did have an influence on the evolution of the site design.

This pre-application process has allowed for the Applicant to identify and respond to local issues and potential concerns. Of the issues raised during the consultation, issues relating to landscape and visual impact, ornithology, and traffic were of particular importance to the community. Constructive comments on these topics have been taken into consideration by the Applicant and their consultants, which have subsequently informed the final site design.

Since Pre-application Consultation process, the site design has evolved, taking account of responses from the public and key stakeholders. The key changes to the Development include:

- Reducing the number of turbines from 22 to 13, to minimise visual impact on the town of Inveraray and residents living in closer proximity to the site. The Applicant received comments regarding visual impact of the Development during the Second and Third Rounds of Public Consultation, as listed in Tables 6.2 and 7.2 of the PAC report. The reduction in number of turbines has also been implemented to avoid onsite constraints, such as deep peat, and reduce the impact on offsite constraints, such as heritage assets, whilst respecting the c.300m buffer from the Special Protection Area.
- Lowering the maximum tip height of the turbines from 200m to 180m, reducing the visual impact on Inveraray and residents living in closer proximity to the site. The Applicant received comments regarding visual impact of the Proposed Development during the Second and Third Rounds of Public Consultation, as listed in Tables 6.2 and 7.2 of the PAC report which notes that potential visual impacts could be experienced at Dun Na Cuiache and Loch Awe which would be a point of concern. As a result, the Development was amended to proposed smaller turbine towers which would then mean reduced visual impact alongside a smaller land requirement is needed for construction.

The Applicant also held numerous meetings (online and in-person) with key stakeholders to the project, in which the stakeholders are listed below:

- NatureScot;
- Energy Consents Unit (ECU);
- Argyll and Bute Council;
- Historic Environment Scotland (HES);
- Community Councils;
- Local Councillors; and,
- Members of Parliament (including Scottish Parliament).

The PAC report demonstrates that Applicant has undertaken a comprehensive Pre-application Consultation programme to proactively inform and engage with the local community. The Pre-Application process has allowed the Applicant to identify and respond to local issues and potential

concerns. Of the issues raised during the consultation, issues relating to landscape and visual impact, ornithology, and traffic were of particular importance to the community. Constructive comments on these topics have been taken into consideration by the Applicant and their consultants, which have subsequently informed the final site design.

The Applicant will continue the open dialogue it has established with the local community during Pre-application Consultation as the application process continues. For full details of the pre application consultation please refer to the accompanying PAC Report.

3.7 Design Evolution

The final layout as assessed in the EIA Report has been the subject of a number of iterations and refinements, implementing project design and mitigation measures which sought to avoid, or minimise, predicted adverse effects to be localised as far as reasonably practicable. The resultant proposal balances the environmental and technical constraints, whilst producing an economically viable project. Design changes made as a consequence of the key constraints are considered to be mitigation which is 'embedded' within the design of the scheme.

Whilst the Development has undergone numerous design iterations, a selection of the key turbine layout design iterations are described below and are shown in EIA Report Volume 2a Figure 3.2 (a - e) which demonstrates how the layouts have evolved throughout the EIA process.

Each of the turbine layout iterations was devised based on the following technical parameters and constraints detailed below:

- Minimum turbine spacing/separation of approximately 5 x rotor diameter downwind and 3 x rotor diameter crosswind and a south-westerly prevailing wind direction (approximately 225 degrees);
- Hard constraints:
 - Slopes of 14% or greater;
 - Where possible 50 m buffers around the banks of watercourses for turbine locations and infrastructure (Figure 3.1);
 - Avoid all known archaeological records on-site;
 - Avoid sensitive ecological habitats and designations (SPA);
 - 1 km buffers around the residential properties for turbine locations;
- Soft constraints:
 - Minimise peat depths at turbine locations in areas of shallower peat (< 1 m) where feasible;
 - Balance visual composition that respects the original design objectives and minimises visual effects on key receptors.

3.7.1 Scoping Layout (June 2021) – Up to 22 Turbines & Max Tip Height 200 m

The Site comprised land initially covering 844 ha centred National Grid Reference 210500, 715500, consisting of 22 turbines with a maximum tip height of 200 m and a total generating capacity of over 50 megawatts (MW).

The turbine tip height and general dimensions were chosen to reflect current trends in wind turbine technology. The need to produce lower costing renewable electricity has generally led to wind turbines becoming taller, where substantial improvements in yield are achieved by using longer turbine blades.

As such, the initial layout maximised potential turbine numbers, reflective of known constraints at the time (Figure 3.1) which were not necessarily subject to detailed site work or technical assessments. The following key known on-site constraints were adhered to:

- Suitable separation distances between turbines based upon anticipated rotor diameters and prevailing wind direction, in order to reduce wake loss and issues associated with wind turbulence;

- 800 m buffer of Residential Properties; and
- 500 m buffer of the Glen Etive and Glen Fyne Special Protection Area (SPA).

The Scoping Layout is presented on EIA Report Volume 2a Figure 3.2a.

3.7.2 Public Consultation 2 layout (February 2022) – Up to 18 turbines & Max Tip Height 200 m

Taking into consideration responses received from scoping and following the completion of several of the baseline surveys and with the environmental constraints digitised and analysed by the technical assessors, an 18-turbine layout with up to 200 m to blade tip was shown at the second round of public consultation events.

Turbines T8, T18, T19 and T22 were removed from the Scoping Layout and the remaining turbines were re-located to create a balanced scheme whilst avoiding known constraints where possible. This revised layout was driven by current known onsite constraints, as well as landscape and visual expert advice, with turbines in the south removed to reduce visual impacts. With this layout, Loch Lomond & the Trossachs National Park was largely shielded from theoretical visibility. Theoretical visibility did exist within the Inveraray Castle GDL however, with natural screening this was expected to be significantly less in reality.

Figure 3.2b provides the layout presented during the second round of public consultation in February 2022.

3.7.3 Pre-chilled layout (May – August 2022) – Up to 16 turbines & Max Tip Height 180 m

The Pre-Chilled Layout comprised 16 turbines each of 180 m tip height.

This iteration took place between the Public Consultation 2 Layout and the Chilled Layout, taking into account ecology, hydrology, noise and peat constraints identified through surveys (Phase 1 peat surveys, National Vegetation Classification (NVC) surveys, Noise monitoring etc.) and analysis of existing GIS data. The hard constraints taken into account in this design included:

- 1 km buffer of Residential Properties;
- 275 m buffer of known bat roosts;
- 250 m buffer of PWS;
- 220 m buffer of public roads;
- 220 m buffer of SSEN overhead transmission lines;
- 100 m over sail buffer;
- 75 m buffer of SPA's;
- Schedule 1 habitats; and
- Peat depths greater than 1 m deep.

During the second round of public consultation in February 2022, it was clear that the number and height of turbines and visual impact was a key concern for some members of the community, particularly for residents along A819. The residents along the A819 also raised concerns regarding the proximity of the turbines.

Subsequently, it was decided to remove turbines T17 and T21. The remaining 16 turbines were re-located, removing turbines from the south and western areas of the site, reducing further landscape impacts and to create a balanced scheme whilst avoiding known constraints where possible. The reduction in tip height from 200m to 180m resulted in small reductions in visibility, and also reduced the land take necessary for infrastructure associated with taller towers.

The Pre-Chilled Layout is presented on Figure 3.2c

3.7.4 Chilled Layout (November 2022) – Up to 13 turbines & Max Tip Height 180 m

The Chilled Layout comprises of 13 turbines with a tip height of 180 m, with the Site now covering 764 ha, with a large area to the southeast of the Site removed.

The Chilled Layout is presented on EIA Report Volume 2a Figure 3.2d.

LIDAR surveys were carried out to determine the precise location of watercourses and gain a more accurate understanding of the topography within the Site. The complex topography of the Site and the numerous watercourses that traverse it were also a key consideration during design work. This factored heavily into the positioning of the turbine access tracks, which re-use existing forest tracks where possible and avoid sensitive areas on site as far as practicable.

A number of iterations took place between the Pre-Chilled Layout and this Chilled Layout, considering constraints identified during ongoing environmental surveys, with a specific focus on landscape and visual, and cultural heritage.

A number of discussions were held with Nature Scot regarding proximity of the turbines to the adjacent Glen Etive and Glen Fyne SPA. The original 500m buffer was reduced to 75m in line with separation distances between some operational windfarms and neighbouring SPAs. Following discussions with Nature Scot and expert advice, it was decided to increase the buffer to c.300m as this distance provided sufficient buffer to the SPA to minimise the likelihood for significant effects whilst maximizing the opportunity for the generation of renewable energy on site.

3.7.5 Frozen Layout (January 2023) –13 turbines & Max Tip Height 180 m

The Frozen Layout comprises of 13 turbines with a tip height of 180 m. The turbine layout changed slightly from that of the Chilled Layout, with the Site now covering approximately 786 ha.

The Frozen Layout incorporates infrastructure elements which are not present on the Chilled Layout, including a temporary construction compound, substation compound, and access tracks. Provision is also included for a Battery Energy Storage System (BESS) which will be located beside the onsite substation. This is expected to have a capacity of up to 41.4 MW. The BESS and Substation compound elements are located approximately 0.66 km west of turbine T6. There are two Temporary Construction Compounds (TCC) included as part of the Development, one located in the south of the Site, adjacent to the existing MoD kiosk and quarry, and the other located in the north of the Site to the north of the Substation and BESS compound.

Phase 2 peat probing has been undertaken at the proposed infrastructure, including new access tracks, Turbines and turbine hardstanding areas, BESS, and Substation and Temporary Construction compounds. As a result of the findings of the phase 2 peat probing, there were minor alterations in locations of three of the turbines, and some small sections of access track to move infrastructure out of areas of deep peat.

The Frozen Layout is presented on EIA Report Volume 2a Figure 3.2e.

The Table 3.1 demonstrates how design and mitigation measures addresses impacts identified in NPF4 Policy 11.

Table 3.1 – Environmental impacts and responses

Impact	Response
Impacts on communities and individual dwellings, including, residential amenity, visual impact, noise and shadow flicker	The Applicant has undertaken comprehensive consultation with the local communities, listening to and responding to concerns (see the accompanying Pre-Application Consultation (PAC) report for further information). This has included the relocation (away from residential properties) and reduction in number and size of proposed wind turbines (from 22 turbines at 200m to tip down to 13 turbines at 180m to tip), resulting in the retention

Impact	Response
	<p>of appropriate operational separation distances with individual dwellings and a reduction in visual impact to Inveraray and surrounding visual receptors. Noise mitigation measures are included in Section 12.6 of Chapter 12 (Noise), reducing potential impacts from construction to be localised and 'not significant'. Shadow Flicker is mitigated by 'Control at Source' measures – shutting turbines down during relevant times and environmental conditions preventing impacts occurring. Drawing on the above, as well as the Residential Visual Amenity Assessment (RVAA) (Appendix 6.4), the accompanying Planning Statement demonstrates the acceptability of the scheme in relation to residential amenity.</p>
<p>Significant landscape and visual impacts, recognising that such impacts are to be expected for some forms of renewable energy. Where impacts are localised and/ or appropriate design mitigation has been applied, they will generally be considered to be acceptable</p>	<p>The Development is located on the eastern side of Glen Aray, with its enclosed valley landscape giving rise to contained Zones of Theoretical Visibility – largely limited by ridgelines to the west and east. As above, the number and size of proposed wind turbines have been reduced from 22 turbines at 200m in height, to 13 turbines at 180m in height. This has specifically reduced the visibility of the Development to key landscape and visual receptors such as Loch Lomond & the Trossachs National Park, Inveraray Castle to the south, also limiting significant impacts to six of the 19 viewpoints considered (with significant impacts only occurring to <i>some</i> viewpoints within 10km of the Development and none beyond this distance). The assessment reported in Chapter 6 (LVIA) demonstrates that significant effects to landscape receptors would be localised and only occur approximately 4 km to the west, 4 km to the north, 9 km to the east, 3 km to the south-east and 9 km to the south-west. The effect of the Development on all other LCTs and LCUs during construction and operation will be not significant. Significant effects would occur to a localised part of the Area of Panoramic Quality (APQ) which are less remarkable and already influenced by wind farm developments and overhead electricity lines. The wider parts of the APQ, where scenic qualities are more remarkable, would be unaffected or not affected significantly.</p>
<p>Public access, including impact on long distance walking and cycling routes and scenic routes</p>	<p>The Development is not located on, nor would it directly impact the ability of people to use long distance walking routes, cycling routes or scenic routes. As assessed in Chapter 15 of the EIAR, impacts to these receptors would not receive significant effects.</p>
<p>Impacts on aviation and defence interests including seismological recording</p>	<p>The reduction in height of the Development reduces impacts to Aviation receptors, however turbines would be fitted with appropriate lighting with arrangements agreed with the MOD pre-construction. No significant effects are anticipated.</p>
<p>Impacts on telecommunications and broadcasting installations,</p>	<p>The Applicant consulted with relevant providers during the design phase, and through the reduction in height and numbers of proposed turbines, resolved JRC's objection who</p>

Impact	Response
particularly ensuring that transmission links are not compromised	confirmed they 'do not foresee any potential problems'. Other providers contacted raised no objection.
Impacts on road traffic and on adjacent trunk roads, including during construction	The reduction in turbine numbers from 22 to 13 dramatically reduces the number of construction related deliveries required for the Development. The assessment undertaken in chapter 13 assumes all concrete would be brought to site, however this is a worst-case scenario given the option of on-site batching exists. Notwithstanding, a series of mitigation measures are proposed (including, but not limited to scheduling deliveries times to avoid peak hours and communication with local communities for planned activities such as concrete delivery or turbine component delivery) to reduce impacts to 'not significant' which would be secured through a Construction Transport Management Plan, agreed with Transport Scotland and the Council post consent.
Impacts on historic environment	The design has avoided currently known heritage assets. Furthermore, through consultation with Historic Environment Scotland the layout of the turbines was altered (clustering them in the northern part of the Site) to reduce potential visibility from key assets at Inveraray and Inveraray Castle. Also, an access route through the Inveraray Castle Designed Landscape was removed, removing associated impact. No significant effects have been identified.
Effects on hydrology, the water environment and flood risk	During design, the requirement for access tracks crossing watercourses has been minimised where possible, and a 50m watercourse buffer has been maintained (where possible) from infrastructure. The Outline Construction Environment Management Plan (oCEMP) establishes effective mitigation measures which will be secured through a detailed CEMP. Furthermore, a Pollution Prevention Plan (PPP) will be agreed with SEPA prior to the construction phase. No significant effects have been identified.
Biodiversity including impacts on birds / impacts on trees, woods and forests;	During the design phase, infrastructure was located (where possible) in areas of lower conservation value, whilst a c.300m separation from the Glen Etive and Glen Fyne Special Protection Area (SPA) was retained, along with separation distances being maintained from other sensitive receptors (such as schedule 1 breeding species nest sites and black grouse lekking sites). Deeper peat was also avoided where possible. A Breeding Bird Protection Plan would ensure reasonable measures are taken to avoid disturbing nest sites. A Species Protection Plan, Ecological Clerk of Works and monitoring programme would reduce impacts. Enhancement measures are proposed within a Biodiversity Enhancement Management Plan (BEMP) (outline BEMP is provided in Technical Appendix A8.4). No significant effects have been identified.

Impact	Response
Proposals for the decommissioning of developments, including ancillary infrastructure, and site restoration	Detailed proposals for decommissioning of the Development would be secured through planning condition.
The quality of site restoration plans including the measures in place to safeguard or guarantee availability of finances to effectively implement those plans	Detailed proposals for site restoration would be secured through planning condition.
Cumulative impacts	Inter-project related cumulative impacts are assessed as relevant within chapters 6 – 17 of the EIAR. Chapter 18 identifies and assesses the potential for intra-project related cumulative effects. No significant cumulative effects have been identified.

3.8 Summary

Various economic, technical and environmental factors were all considered in the iterative design process. These were informed through a variety of baseline surveys and consultation with a range of stakeholders.

The final design takes account of the surveys and consultation and is considered to meet the balance of increasing the renewable energy generation capacity of the Site whilst minimising the introduction of new environmental effects.

In advance of the scoping stage, turbines were positioned to avoid immediately known onsite constraints and incorporate landscape and visual considerations. The application layout incorporates necessary rotor spacing requirements, based on prevailing south-west wind, and the turbines positioned to minimise interaction with onsite constraints including any deep peat and watercourses.

4 THE ACCESS STATEMENT

The access principles considered in the Development include, where possible, using existing tracks and routing of new tracks to minimise engineering works and environmental impact by minimising watercourse crossings where and when possible.

4.1 Route to Site

The proposed transport route to Site includes two proposed routes to facilitate access for construction traffic. These will be abnormal load routes and a general route for other construction traffic.

The abnormal load route will follow the following route to Site:

- Loads will exit the port at Corpach, near Fort William, onto the A830 eastbound towards the A830/A82 Roundabout;
- Take the 2nd exit onto the A82 and continue southbound towards A82/A85 priority junction;
- At the junction, turn right onto the A85 westbound towards the A85/A819 priority junction;
- At the junction, turn left onto the A819 southbound towards the Site Entrance Junctions; and
- Turn left into the Site.

The general route for other construction traffic will have a Northern Route and a Southern Route. The Northern Route will follow the same route as the abnormal load route approaching from the A85 and the southern route will follow the following route to Site:

- Construction traffic is assumed to be approaching from the south via the A83(T);
- Turn left onto the A819 at the A83(T)/A819 priority junction northbound at Inveraray towards the Site Entrance Junctions; and
- Turn right into the Site.

Details of roads capacity, sensitive receptors and a traffic collision assessment can be found in Chapter 13 of the EIA Report.

4.2 Site Entrance/ Vehicle Access

The Development is located approximately 4.7 km north of Inveraray. The nearest Trunk Road is the A83 from Campbeltown in the south, passing through the port of Kennacraig and Lochgilphead, terminating at its junction with the A82 at Tarbet. Transport Scotland manage the A83 and the road is operated by Bear Scotland (as maintenance contractor for Scotland North West Area).

The Site will be accessed via two access points off the A819. A new access junction is proposed at NGR 209101, 716517, to be constructed in the north of the Site, as part of the Development. Secondly, an existing access junction at NGR 208923, 713010 would be upgraded and the existing crossing over the River Aray would be replaced with a new bridge.

Both access points would be capable of accepting turbine blades and components and although it is likely that only one would be used for turbine component delivery, both are assessed as such within this EIAR.

Policy LDP 10 supports all development proposals which seek to maximise the areas resources and reduce consumption where they accord with a series of criteria including the settlement strategy, sustainable design principles and minimising the impact on the environment.

Policy LDP 11 (Improving our Connectivity and Infrastructure) of the Argyll and Bute Local Development Plans (ABLDP) states that "It is essential to ensure that that new developments have the appropriate infrastructure to support them in their particular circumstances, for example access, sewerage, water and parking."

SG LDP TRAN 4 provides additional detail to Policy LDP11 on utilising new and existing public roads, private roads and private access solutions to development subject to road safety and design issues being satisfied and in appropriate circumstances.

As consideration for the policies noted above, the existing forestry tracks located within the Site will be used where possible to provide construction access. Using these existing tracks wherever possible has been a key design criterion with approximately 4 km of the access tracks associated with the Development consisting of existing track.

Appendix 13.1 of the EIA report considers all abnormal loads and construction deliveries. The Abnormal Indivisible Load Route Survey notes that the nearest feasible and economical Port of Entry (PoE) for the site is Corpach Harbour, near Fort William. The port has been previously used by turbines imports in the past including tower and nacelle deliveries for Stronelaig Wind Farm. All public roads along the route are at least 5 m wide. Road junctions and bends along the route have been assessed to ensure that vehicles will be able to negotiate these safely and enable easier access via larger vehicle such as HGV (length 16.5m, height 3.6m, width 2.5m) to the Site.

The proposed access route to the site access junction from Corpach is as follows:

- Loads would exit Corpach Harbour and proceed east on the A830;
- Loads would exit the A830 to join the A82 southbound;
- At Tyndrum, loads would exit the A82 to join the A85 westbound; and

- To the west of Dalmally, loads would exit the A85 to join the A819 southbound. Loads would then proceed to the site access junction, where they would turn left onto the site access junction.

4.3 Construction Traffic Management Plan

A Construction Traffic Management Plan ('CTMP') will be prepared with traffic management measures which will ensure efficient and safe transport of vehicles and personnel to and from site, and with minimum disruption to other road users. It is anticipated that this will be enforced via a suitably worded planning condition. The CTMP will be submitted for approval by the Council Roads Department prior to the commencement of construction activity.

Following construction, once in full operation, the Development will not generate any significant traffic movements, with security and maintenance staff the only likely infrequent visitors, travelling by car or light van.

4.4 Traffic Volume

Most traffic generated by the Development is associated with the construction phase which is anticipated to last up to 24 months. The main approach considered in this assessment assumes that wind turbine components will be transported as abnormal loads from Corpach Harbour, near Fort William. The majority of materials required for construction will be transported via the General Construction Traffic corridor which can be defined as:

- A85(T) between Thornhill and Auchinleck
- A83(T) near Inveraray; and
- A819

Baseline traffic flow information was obtained from data published by the Department of Transport (DfT) located on the construction traffic route. Traffic growth factors were applied to the baseline traffic flow between the date of survey and the anticipated date at which construction will commence, 2026.

It is assumed that most construction traffic will approach the Site from either the north or south of the A819 via the A85(T) and the A83(T) as detailed above. The main potential transportation impacts would be associated with the movement of heavy goods vehicles (HGVs), light goods vehicles (LGVs), and cars to and from the Site during the construction phase. In addition, abnormal load vehicles (ALVs) will use the preferred route from the Port of Entry via the A82(T) southbound towards the Site, however the number of vehicles using this route is significantly lower than the general traffic.

It is estimated that a total up to 64,222 two-way vehicle movements would be associated with the construction phase of the Development, as a worst case (100% aggregate and concrete imported to Site). This figure includes 8,714 HGV and abnormal load delivery movements and 55,508 light vehicle (car and van) movements.

Over the construction period, the total daily vehicle movement numbers peak during month eleven is 145 vehicles per day during non-concrete delivery days rising to 444 vehicles per day on concrete delivery days. This is principally due to the deliveries of concrete and stone for the access tracks, crane hardstandings and turbine foundations. The assessment assumes that 100% of the concrete required for use in construction the site is to be imported. This approach is very robust and likely to be an overestimate, given that on-site borrow pit search areas have been identified and sized to allow for on-site concrete batching.

4.5 Existing Core Paths

There are no core paths located within the Site boundary however there are 4 Core paths and The National Cycle Route 78 located within 5 km of the Site.

There are a number of existing forestry tracks used for the commercial woodland harvesting. The Site is currently accessible on foot to the public for walking and recreation, though there are health and safety restrictions in place during periods of harvesting and other forestry operations which means the network of paths and tracks is not always fully accessible to the public.

The effects on walking routes during construction will be limited to temporary access restrictions and general amenity from the construction site. Furthermore, given the proposed layout and entrance point for construction traffic, it is likely that these effects will be restricted to the path network in the northwest of the Site.

5 CONCLUSION

This DAS has been prepared in accordance with requirements of Regulation 13 of the DMP.

The DAS has established:

- The design principles and rationale that have been applied to the Development, including the various relevant environmental and technical criteria;
- The steps taken to appraise the context of the Site, and how the design of the Development takes that context into account, in respect of design iteration, the various relevant environmental and technical criteria, and each design component;
- The relevant considerations in forming the site access; and
- That all relevant issues which might affect access to the Development have been addressed.

The principal use of the Development is to produce electricity by harnessing energy from the wind, a renewable resource, which will feed into the grid network. The Development has been fully considered against all relevant National and Local Planning policies. Care has been taken in the design of the Development to avoid unacceptable environmental and amenity effects, whilst ensuring that the Development can make a significant contribution to the UK's requirement for renewable energy generation, deliverable in a short timeframe.

The final layout of the Development has been carefully developed considering the technical and environmental constraints identified throughout the EIA process. The identification of environmental effects is an iterative process, running in tandem with the design process for the Development. The design of the Development has resulted in a site design which meets the objective of maximising electricity generation whilst minimise environmental effects, including access arrangement which seek to use existing forest routes where practicable.

Notably, the environmental effects have been comprehensively considered in the accompanying EIA Report, and it is determined that with appropriate mitigation, these effects would be not significant in EIA terms.

It is integral to planning decision-making that a balancing exercise has to occur in respect of considering the benefits of development against the impacts. In this case, there are clear benefits which arise from the renewable energy credentials of the Development which clearly outweigh the impacts, including:

- Contribution to international and national renewable energy targets;
- Reduction of carbon emissions; and
- Production of clean energy.

Scotland is also legally bound through the Climate Change Scotland Act (2009) (as amended by the (Emissions Reduction Target) (Scotland) Act 2019) to reduce carbon emissions and to increase electricity consumption from renewable resources. The Development would contribute towards meeting these requirements and would also be fully supported by energy policy as it would assist in replacing outdated energy infrastructure and the move to a low carbon economy.

It is central to the consideration of planning applications for renewable energy to understand that Scotland has declared a climate emergency. This cannot be understated and should drive towards a positive determination of this Application.

Taking into account all relevant national and local policies, and consideration, the Development is considered to be in compliance with these policies and considerations. The Development has also been assessed to fully comply with the provisions of paragraph 3 of Schedule 9 of the Electricity Act. It is therefore respectfully requested that this application is granted S36 consent, together with a direction that planning permission be deemed to be granted.