ABERARDER WIND FARM

Environmental Statement 2014



Volume II – Environmental Statement

power for good

Glossary

Word	Definition
Above Ordnance Datum (AOD)	The mean sea level at Newlyn (UK) used as a base measurement on Ordnance Survey Maps for contours.
Aquifer	A rock formation that is sufficiently porous and permeable to yield a significant quantity of water to a borehole, well or spring. The aquifer may be unconfined beneath a standing water table, or confined by an impermeable or weakly permeable horizon (1)
Biodiversity	The concept of variety in all species of plants and animals.
Broadband Noise	Noise which covers a wide range of frequencies (e.g. from 10 Hz to 5 kHz).
Burrow	A water vole's dwelling place
Catchment	A catchment boundary defines the area of land which drains to a given point (the catchment outlet).
Clearance Cairn	An irregularly constructed, generally unstructured, mound of stones; often, but not necessarily, circular. Normally a by-product of field clearance for agricultural purposes.
Confluence	The point at which two watercourses meet.
Constraints map	Map showing the location of important resources and receptors that may form constraints to development.
Construction Traffic	Vehicles associated with site preparation and supply of plant and equipment (excluding AILs), construction materials and labour during construction phase (expected to be less than 44 tonnes Gross Vehicle Weight, and operated under normal Construction and Use Regulations
Countryside	The rural environment and its associated communities (including the coast).
dB(A)	The decibel (dB) is a logarithmic unit used in acoustics to quantify sound levels relative to a 0 dB reference (a sound pressure level of 2*10-5 Pa). The 'A' signifies A-weighting which is a frequency-response function that applies an international weighted scale of sound levels in each frequency band (octave band or third octave band) providing a good correlation with the sensitivity of the human ear which is less sensitive to very high and very low frequencies.
Digital Surface Model (DSM):	Computer generated 3 dimensional model based on aerial survey of ground surface, tree canopies, built structures etc.). Often utilised as a basis for visibility modelling where the effects of intervening structure and/or vegetation need to be incorporated.
Digital Terrain Model (DTM)	Computer generated 3 dimensional model based on aerial survey of ground surface (e.g. Ordnance Survey Profile data). Often utilised as a basis for visibility modelling over large areas.
Drey	A squirrel's dwelling place
Echolocation	The means of navigation for many bats – involves emitting ultrasound and listening for the echoes to develop a sonic "picture" of the environment.
Field Pattern	The pattern of hedges and walls that define fields in farmed landscapes.
Field System	An area of land, often enclosed, used for cultivation or the grazing of livestock. Includes both single enclosures and more complex groups of fields.
Flint Scatter	A spatially discrete, though sometimes extensive, scatter of flint artefacts and knapping debris recovered from the surface, e.g. by field-walking, rather than from a particular archaeological context.
Frequency	The pitch of a sound in Hz or kHz. See Hz.
Geographic Information System	Computerised data base of geographical information that can easily be updated and manipulated
Groundwater Dependent Terrestrial Ecosystems	Terrestrial wetland ecosystem dependent upon a groundwater supply for their existence.
Holt	An otter's dwelling place
Hut Circle	A low, circular or oval bank of turf, earth or stone, which represents the remains of a roundhouse of probable later prehistoric date
Hz	Sound frequency refers to how quickly the air vibrates, or how close the sound waves are to each other (in cycles per second, or Hertz (Hz)).
L90	Sound pressure level exceeded for 90% of the time for any given time interval. For example, L(A)90,10min means the A-weighted level that is exceeded for 90% of a ten minute interval. This indicates the noise levels during quieter periods, or the background noise level. It represents the lower estimate of the prevailing noise level, and is useful for excluding the effects of, for example, aircraft or dogs barking on background noise levels.
Landscape Capacity	An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors. The degree to which a particular landscape character type or area is capable of is able to accommodate change without unacceptable adverse effects on its character. Capacity is likely to vary according to the type and nature of the changes being proposed. The capacity of the landscape is derived from a combination of Landscape Character Sensitivity, Visual Sensitivity and Landscape Value
Landscape Character	The distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and how this is perceived by people. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement. It creates the particular sense of place in different areas of the landscape.
Landscape Character Type	A landscape type will have broadly similar patterns of geology, landform, soils, vegetation land use, settlement and field pattern discernible in maps and field survey records
Landscape Fabric	Physical elements of the landscape or development site.

1 Defined by British Geological Survey (http://www.bgs.ac.uk/research/groundwater/resources/glossary.html)

Word	Definition
L_{eq}	The equivalent continuous noise level is a notional steady noise level, which over a given time, would provide the same energy as the intermittent noise. Noise standards often specify the length of time over which noise should be measured.
L_W	Sound power level is the acoustic power (W) radiated from a sound source. This power is essentially independent of the surroundings, while the sound pressure depends on the surroundings (reflecting surfaces) and distance to the receiver.
Minerogenous	A habitat dependent on groundwater
Noise Emission	The noise energy emitted by a source (e.g. a wind turbine).
Noise Immission	The sound pressure level detected at a given location (e.g. nearest dwelling).
Octave Band	Range of frequencies between one frequency (f0*2-1/2) and a second frequency (f0*2+1/2). The quoted centre frequency of the octave band is f0.
Ombrogenous	A habitat dependent on rainwater
Peat	An organic surface horizon over 0.5m deep of partially decomposed remains of plants and organic matter that is formed in wet anaerobic ground (2&3)
Permeability	The ability of a fluid, like water or oil, to pass from one pore space to another (1).
Precautionary Principle	Principle applied to err on the side of caution where significant environmental damage may occur, but where knowledge on the matter is incomplete, or when the prediction of environmental effects is uncertain.
Private Water Supply	Water not supplied by a statutory water undertaker such as a water company.
Roost	A bat's dwelling place
Q_{95}	Percentage of time that a flow is exceeded; hence Q95 is the flow exceeded 95 % of the time.
Q_{med}	The flood flow that is exceeded on average every other year and is defined as the middle ranking value in a series of annual maximum flood.
Residual Effects	Effect of development after mitigation proposals are taken into account.
Scoping	The process of identifying likely significant effects of a development on the environment – which may be carried out in a formal or informal way.
Sett	A badger's dwelling place
Significant Effect	An effect which is considered by the assessor to be "significant" in terms of the Environmental Impact Assessment Regulations which require the identification of significant effects
Sound Frequency	Refers to how quickly the air vibrates, or how close the sound waves are to each other (in Hertz). Frequency is subjectively felt as the pitch of the sound. The lowest frequency audible to humans is 20 Hz and the highest is 20,000 Hz. The human ear is most sensitive to the 1 kHz, 2 kHz and 4 kHz octaves and much less sensitive at the lower audible frequencies.
Spectrum	Description of the sound pressure level of a source as a function of frequency.
Superficial Deposits (geology)	These are the youngest form of geological deposit formed during the most recent period of geological time4. These directly overlie the solid bedrock and can often be unconsolidated and highly permeable.
Sustainable Drainage Systems	A sequence of management practices and control structures designed to drain system's surface water (SuDS) in a more sustainable fashion than some conventional techniques.
Sub-catchment	A division of a catchment, to allow runoff to be managed as near to the source as is reasonable.
Third Octave Band	The range of frequencies between one frequency (f0*2-1/6) and a second frequency equal to (f0*2+1/6). The quoted centre frequency of the third octave band is f0.
Tonal Noise	Noise which covers a very restricted range of frequencies (e.g. a range of <=20 Hz). This noise is more annoying than broadband noise.
Transient View	A view which obtained momentarily, as part of a sequence of views, e.g. from a car travelling along a road
Tributary	An adjoining stream which flows into the main river.
Visual Amenity	Particular composition of landscape elements that contribute to a view, or views
Visibility Analysis	The process of identifying theoretical (based on digital modelling) and/or actual predicted areas from where any given development may be seen
Visual Effect	The consequence of change in the appearance of the landscape as a result of development, which may be positive or negative.
Visual Impact	The change in the appearance of the landscape and nature of views which may be adverse or beneficial.
Visual Envelope	The extent of potential visibility to or from a specific area or feature.
Visualisation	Computer generated simulation or photomontage or other technique to illustrate how the proposed development would appear
Zone of Theoretical Visibility (ZTV)	The area predicted to have views of a proposed development on the basis of a digital terrain model or digital surface model, which may/may not take account of landcover features
Zone of Visual Influence or Viewshed	The area within which a proposed development will be visible

2 SNH, SEPA, Scottish Government and The James Hutton Institute 2011. Guidance Developments on Peatland: Site Surveys

3 SEPA 2010. SEPA Regulatory Position Statement – Developments on Peat

4 Defined by British Geological Survey (http://mapapps.bgs.ac.uk/geologyofbritain/home.html)

Table of Content

Environmental Statement

1. Introduction

1.1 This Environmental Statement (ES) has been prepared by RES UK & Ireland Limited (RES) in accordance with the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 (as amended), in support of an application to The Highland Council (hereafter, the Council) for planning permission to construct a wind farm comprising 12 wind turbines at Aberarder, Strathnairn, Highland, as shown in Figure 1.1.

1.2 The ES comprises four volumes:

- Volume 1: Non-Technical Summary (NTS);
- Volume 2: Main Report;
- Volume 3: Technical Appendices;
- Volume 4: Landscape & Visual Figures; and
- Volume 5: Confidential Information.

Purpose of the ES

1.3 This ES reports on the Environmental Impact Assessment (EIA) process undertaken for the proposed Aberarder wind farm. EIA is required where a development is '*likely to have significant effects on the environment by virtue of factors such as its nature, size or location*'[1]. The ES provides a clear and concise summary of the proposed development and its likely significant environmental effects on the natural, built and human environments.

Other Planning Documents

1.4 Additional documentation that will be submitted with this application includes:

- Planning Statement (incorporating the Design and Access Statement);
- Pre-Application Consultation Report; and
- Cover letter, confirming deposit locations for the ES.

EIA Process

Screening

1.5 RES (the Applicant) has not requested a formal screening opinion from the Council on the need for EIA. Given the nature and scale of the proposed Aberarder wind farm and the potential for significant environmental effects, the Applicant considers that an EIA is required as set out in Schedule 2 to the EIA Regulations.

Scoping

1.6 RES submitted a Scoping Report (Doc Ref: 02835-000494) to the Council on 11th February 2014. The Council provided the Scoping Opinion to RES on 28th March 2014. The Scoping Report and Scoping Opinion are available on the Council's eplanning portal - http://wam.highland.gov.uk/wam/applicationDetails.do?activeTab=documents&keyVal=N14V75IH09A00.

1.7 Further detail on the key issues identified through the scoping and consultation process are described in **Chapter 3: Design Evolution and Alternatives.**

Baseline Characterisation

1.8 The purpose of EIA is to predict how environmental conditions may change as a result of a proposed development. This requires that the environmental conditions now and in the future, assuming no development on the site, are established. These conditions are referred to as 'the baseline' and are usually established through a combination of desk based research, site survey, and empirical studies and projections. Together these describe the current and future character of the site and surroundings, and the value and vulnerability of key environmental resources and receptors.

1.9 Making predictions about how parameters such as land use, landscape, views and the wider community may change in the future relies heavily on assumptions about future development and environmental trends and is at risk of being wholly hypothetical and subjective. For this reason where development is not proposed in the vicinity of the proposed development, to allow for a future baseline to be addressed, the baseline adopted for EIA is normally taken as the current character and condition of the site and surrounds, and the likely significant environmental impacts of the development are then assessed in the context of the current conditions alone.

EIA Methodology

1.10 Good practice in EIA is defined in a number of sources (Hakes P, 2007[2]; Carroll B et al, 2003[3]; DCLG, 2006a[4] & b[5]; IEMA, 2004[6] and 2008[7]; Lee et al (1999)[8], European Commission 2001[9]; PAN 1/2013, Circular 3/20111). The methods followed in this EIA have drawn on

[1] Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 (as amended)

[2] Hakes P (2007) The Essex Guide to Environmental Impact Assessment
[3] Carroll B and T Turpin (2003) Environmental Impact Assessment Handbook: A Practical Guide for Planners, Developers and Communities
[4] Department for Communities and Local Government (2006a) Environmental Impact Assessment: A Guide to Good Practice (Consultation Paper)
[5] Department for Communities and Local Government (DCLG) (2006b) Amended Circular on Environmental Impact Assessment (Consultation Paper)
[6] Institute of Environmental Management and Assessment (2004) Guidelines for Environmental Impact Assessment
[7] Institute of Environmental Management and Assessment (2008) ES Review Criteria
[8] Lee N, R Colley, J Blonde and J Simpson (1999) EIS Review - Reviewing the quality of Environmental Statements and Environmental Appraisals
[9] European Commission (2001) Guidance on EIA

these documents to generate a robust assessment. In line with guidance provided in the EIA Regulations and EIA good practice guides, the EIA process has involved the following:

- consultation and scoping with statutory consultees, non-statutory consultees and the local community to identify the key issues on which the EIA should focus;
- establishing baseline environmental conditions through desktop research and site surveys;
- identifying potential impacts of the proposed wind farm;
- determining how impacts could be avoided or reduced through design evolution or additional mitigation measures;
- assessing the significance of residual environmental impacts on the identified receptors against recognised or defined criteria;
- describing how likely significant future impacts would be monitored (e.g. through conditions attached to a planning consent); and
- reporting the process, results and conclusions of the EIA in an ES.

Mitigation by Design

1.11 In the hierarchy of mitigation, likely significant adverse effects should in the first instance be avoided altogether, then reduced and finally, where possible, offset (IEMA 2004).

1.12 Adverse effects are best avoided through the design and the iterative nature of EIA can help inform the development of the design process. In this case, the EIA and the design processes have been combined in order to minimise potential impacts through mitigation by design.

1.13 An explanation of mitigation by design is provided in **Chapter 3: Design Evolution and Alternatives**.

1.14 In addition to employing the tenet of mitigation by design, the following design principles have been employed when making design decisions:

- mitigation by design should be the principal method of reducing potential environmental impacts;
- existing infrastructure should be used whenever possible to avoid unnecessary development;
- Aberarder Wind Farm, although not an extension to Dunmaglass Wind Farm, should be designed as a visual extension to Dunmaglass;
- use of site won rock is preferred to reduce traffic generation; and
- all site infrastructure should be designed as efficiently as possible to reduce the overall extent of development.

Consideration of Alternatives

1.15 Both the EIA Directive and the EIA Regulations require that, as part of the information to be provided in an ES, an outline of the main alternatives studied by the developer and an indication of the main reasons for their choice, taking into account the environmental impacts, should be provided. However, there is no requirement in the regulations, for the applicant of a wind farm to demonstrate that there are no alternative sites which would have lesser environmental effects.

1.16 Good practice on EIA (DCLG, 20063) clarifies this point. It explains that the EIA Regulations do not require applicants to 'invent' an alternative where none has been considered, although the lack of alternatives should be explained. It goes on to accept that alternatives would be constrained by economic and operational reasons, and that the competent authority should consider an application on its merits and not on the merits of potential alternatives (although for some applications, the existence or otherwise of feasible alternatives might be a material consideration). **Chapter 3: Design Evolution and Alternatives** therefore summarises the alternatives to the proposed wind farm considered by the design team, including the site selection process and the consideration of alternative designs through design evolution.

Identification of Impacts

1.17 Each technical chapter contains a section that identifies the likely significant effects on the environment that may arise as a result of the construction and/or operation of the proposed wind farm. Impacts may be direct, indirect, primary, secondary or cumulative. Within these categories, they may also be short, medium or long-term, permanent or temporary, positive or negative. Direct (or Primary) impacts are changes to the baseline arising directly from activities that form part of the development, for example a localised increase in noise during construction. Indirect (or Secondary) impacts are those that arise as a result of a direct impact, for example deterioration of water quality in a watercourse due to a discharge could have secondary impacts on aquatic biodiversity. Cumulative impacts occur when a receptor is subject to multiple impacts, either of the same nature from different developments, or of different types but caused by the same development. Cumulative impacts are discussed further below. In this report the terms impacts and effects are used interchangeably.

Phasing

1.18 In relation to phasing, the likely significant effects arising from construction, operation and decommissioning have been assessed individually in each chapter, where appropriate. **Chapter 2: The Proposed Development** provides a detailed breakdown of project phasing.

Cumulative Impacts

1.19 In accordance with the web-based renewable energy guidance[10] which has recently replaced PAN 45[11], likely cumulative impacts have been defined as the likely impacts that the proposed wind farm may have in combination with developments which are at the application stage, consented, under construction or operational. However, it should be noted that the specific developments which are included within the cumulative impact

[10] Scottish Government – Renewable Energy Guidance online - http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/renewables
[11] Scottish Government (2002) Planning Advice Note 45: Renewable Energy Technologies

assessment varies from one technical chapter to another according to the particular impacts which are under consideration – for example all of the cumulative schemes are included within **Chapter 4: Landscape and Visual**, however this approach is not appropriate for e.g. **Chapter 7: Terrestrial Ecology** due to the potential ecological receptors being much more localised. The rationale for the cumulative developments included in the assessments is explained within each technical chapter.

1.20 Due to the nature and scale of the proposed wind farm, cumulative landscape and visual impacts, noise impacts, historic environment impacts, ecological and ornithological impacts, and impacts from traffic and access arising from other wind farms in the vicinity of the site have all been considered in the respective assessments. No other potentially significant cumulative impacts have been identified and therefore only the aforementioned cumulative impacts are assessed in this ES.

Commenting on the ES

1.21 Further information is available on the project website (http://www.aberarder-windfarm.co.uk/) and hard copies of the ES and other documentation can be viewed at the following locations:

The Highland Council
Planning & Development Services
Glenurquhart Road
Inverness
IV3 5NX

Farr Community Hall
Farr
Strathnairn
IV2 6

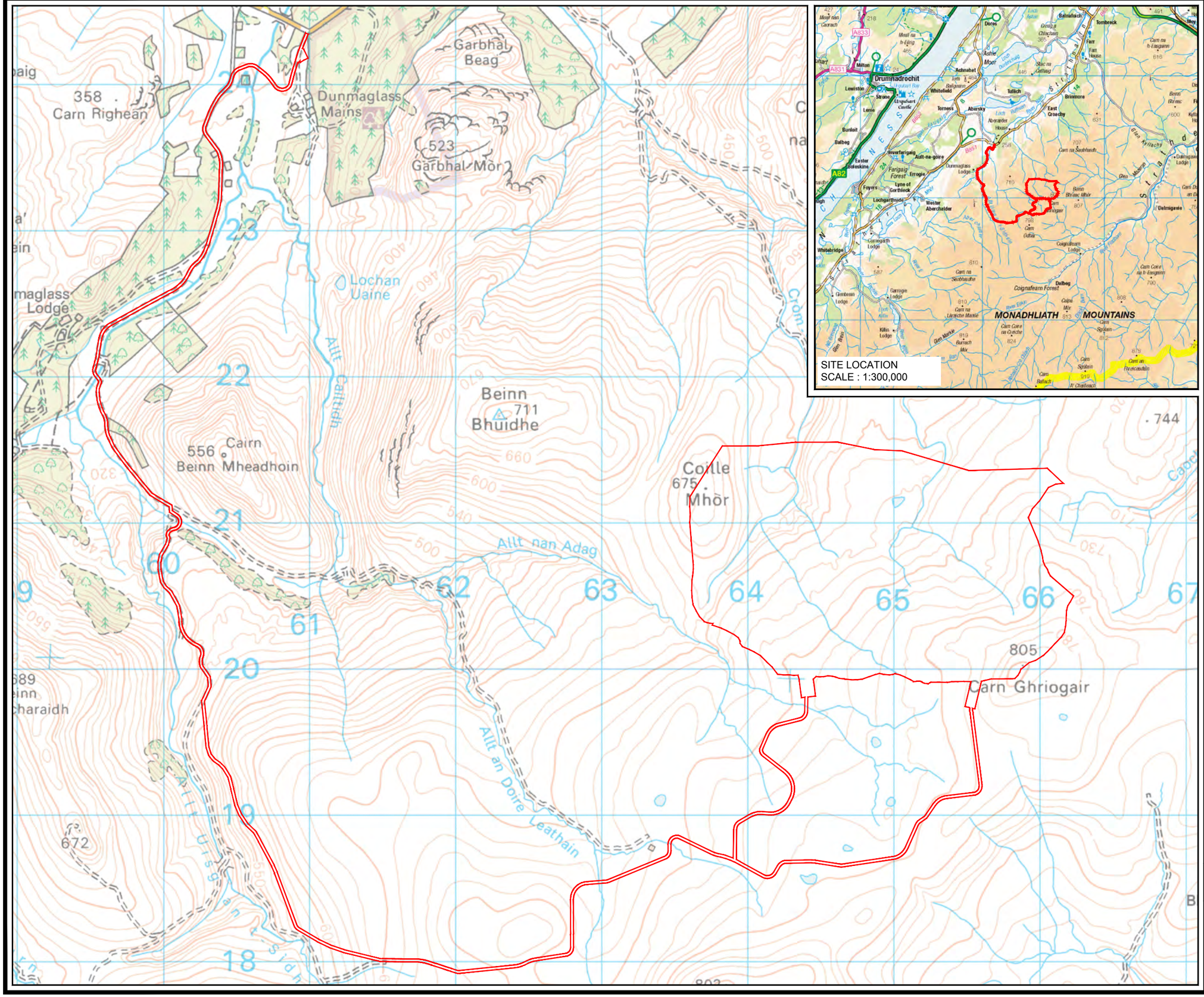
Development and Infrastructure Service
Kintail House
Beechwood Business Park
Inverness

Highland Council Service
Point
21-23 Church Street
Inverness
IV1 1DY

1.22 This document is available at a cost of £350 in hard copy format (including postage and packaging) or on CD-ROM (price £15). A Non-Technical Summary of the Environmental Statement is available free of charge from the address below on request.

1.23 Copies of the Environmental Statement can be obtained from:

RES UK & Ireland Limited
3rd Floor
STV
Pacific Quay
Glasgow
G51 1PQ



SITE LOCATION
SCALE : 1:300,000

ABERARDER WIND FARM

FIGURE 1.1

SITE LOCATION & PLANNING APPLICATION BOUNDARY

KEY

🟥 SITE BOUNDARY

LAYOUT DWG	T-LAYOUT NO.
N/A	N/A

DRAWING NUMBER
02835D2220-03

SCALE - 1:25,000 @ A3

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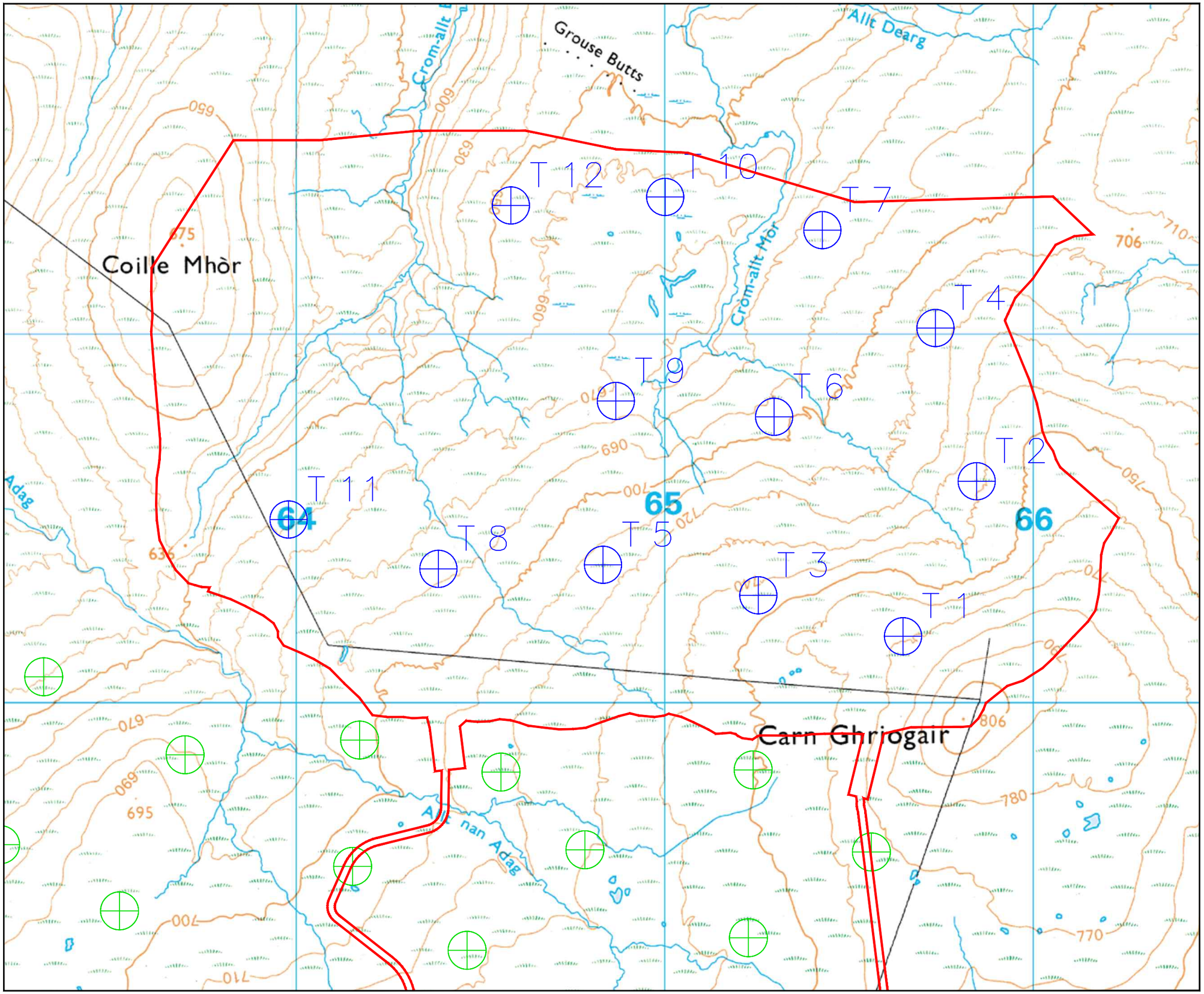

ABERARDER
WIND FARM

FIGURE 1.2

TURBINE LAYOUT

Site Boundary

Aberarder Turbine Locations

Dunmaglass Turbine Locations

Turbine ID	Easting	Northing
T1	265646	820181
T2	265846	820602
T3	265253	820292
T4	265734	821018
T5	264831	820375
T6	265296	820777
T7	265427	821284
T8	264384	820364
T9	264866	820820
T10	265000	821374
T11	263977	820498
T12	264581	821351

LAYOUT DWG 02835D0001-12

T-LAYOUT NO. PSCOabe027

DRAWING NUMBER
02835D0001-13

SCALE - 1:10,000 @ A3

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2014

5. Cultural Heritage

Introduction

5.1 This chapter of the Environmental Statement (ES) has been prepared by Arcus Consultancy Services Ltd. and evaluates the effects of the proposed Aberarder Wind Farm ('the proposed wind farm') on the cultural heritage and archaeology resource. The cultural heritage and archaeology resource includes World Heritage Sites, Scheduled Monuments, Listed Buildings, Conservation Areas, Inventoried Gardens and Designed Landscapes, Inventoried Battlefields, and other archaeological remains and buildings of historic/architectural importance as recorded on The Highland Council Historic Environment Record (HER).

5.2 The assessment is intended to identify cultural heritage assets and sites which may be affected, either directly (e.g. through physical disturbance during construction) or indirectly (e.g. through changes to visual and archaeological setting) during construction, throughout operation or from decommissioning of the proposed wind farm. Further information on the proposed wind farm is given in Chapter 2: Proposed Development of this ES.

5.3 This chapter contains the following sections:

- Planning – a list of the relevant legislation, policy and guidance considered during the cultural heritage assessment;
- Assessment Methodology - describing both the methods used in baseline surveys and in the assessment of the significance of effects;
- Baseline Conditions - a description of the condition of the site and its archaeological potential, as well as a listing of features of cultural heritage interest at various ranges beyond the immediate site resulting from surveys, desk-based information and consultations carried out to inform this chapter;
- Likely Significant Effects - identifying the ways in which the cultural heritage resource of the site and setting could be affected by the proposed wind farm;
- Mitigation Measures and Residual Effects - a description of measures recommended to off-set the identified potential effects and an assessment of the significance of the effects of the proposed wind farm, after mitigation measures have been implemented;
- Cumulative Effect Assessment – of all wind farms out to 15km from the proposed wind farm; and
- Summary.

5.4 This chapter is supported by the following technical appendices and figures:

- Technical Appendix 5.1 – Archaeological Desk Based Assessment (in Volume 3);
- Figure 5.1 – Archaeological Features identified during Desk-Based Assessment;
- Figure 5.2 – Setting Assessment Features; and
- Heritage Wirelines Figures 5.3 - 5.14.

Planning

5.5 The assessment has been undertaken within the context of current legislation, policy and guidance at the time of writing. Further information regarding the planning context can be found in the Planning Statement.

Legislation

5.6 The following legislation has been taken into account in this assessment:

- The Ancient Monuments and Archaeological Areas Act (1979)[1] as amended by the Historic Environment (Amendment) (Scotland) Act (2011)[2];
- The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997[3] (As amended by the Historic Environment (Amendment) (Scotland) Act (2011);
- The Town and Country Planning (Scotland) Act 1997[4] (as amended by the Planning etc. (Scotland) Act 2006)[5]; and
- The Town and County (Environmental Impact Assessment) (Scotland) Regulations 2011[6].

Policy

5.7 The following policy has been taken into account in this assessment:

- Scottish Planning Policy (SPP)[7] and National Planning Framework 3[8];
- Scottish Historic Environment Policy (SHEP)[9];
- The Highland-wide Local Development Plan Policy 28 - Sustainable Design[10];
- The Highland-wide Local Development Plan Policy 29 - Design Quality and Place Making[10];
- The Highland-wide Local Development Plan Policy 30 - Physical Constraints[10];
- The Highland-wide Local Development Plan Policy 36- Development in the Wider Countryside[10];
- The Highland-wide Local Development Plan Policy 57 - Natural, Built and Cultural Heritage[10];
- The Highland-wide Local Development Plan Policy 61 - Landscape[10]; and

[1] Ancient Monuments and Archaeological Areas Act (1979). Available at http://www.legislation.gov.uk/ukpga/1979/46 [Accessed on 05/11/2013]

[2] Historic Environment (Amendment) (Scotland) Act 2011. Available at http://www.legislation.gov.uk/asp/2011/3/contents/enacted [Accessed on 05/11/2013]

[3] Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997. Available at http://www.legislation.gov.uk/ukpga/1997/9/contents [Accessed on 05/11/2013]

[4] Town and Country Planning (Scotland) Act (1997). Available at: http://www.legislation.gov.uk/ukpga/1997/8 [Accessed 16/04/2014]

[5] The Planning etc. (Scotland) Act (2006). Available at: http://www.legislation.gov.uk/asp/2006/17/contents [Accessed 16/04/2014]

[6] Town and Country (Environmental Impact Assessment) (Scotland) Regulations 2011. Available at: http://www.legislation.gov.uk/ssi/2011/139/contents/made [Accessed 16/04/2014]

[7] Scottish Government (June 2014) *Scottish Planning Policy (SPP);* Available at http://www.scotland.gov.uk/Resource/0045/00453827.pdf [Accessed on 19/08/2014]

[8] Scottish Government (July 2014) *National Planning Framework 3.* Available at http://www.scotland.gov.uk/Resource/0045/00453683.pdf [Accessed on 21/8/2014]

[9] Historic Scotland (December 2011) *Scottish historic Environment Policy (SHEP);* Available at http://www.historic-scotland.gov.uk/shep-dec2011.pdf [Accessed on 05/11/2013]

[10] The Highland-wide Local Development Plan, April 2012. Available at http://www.highland.gov.uk/downloads/file/1505/highland-wide_local_development_plan

- The Highland-wide Local Development Plan Policy 67 - Renewable Energy Development[10].

Guidance

5.8 The following guidance and advice was also considered:

- Planning Advice Note (PAN) 2/2011: Planning and Archaeology[11];
- Our Place in Time: The Historic Environment Strategy for Scotland[12];
- The Institute for Archaeologists' (IfA) Standard and Guidance for Historic Environment Desk-Based Assessments[13];
- The Highland Council Standards for Archaeological Work; and
- Historic Scotland's Managing Change in the Historic Environment Series, specifically their volume on setting[14].

Scope of Assessment

Consultation

5.9 Consultation was undertaken with both statutory and non-statutory consultees at the scoping stage and as part of the assessment process. The responses are summarised in Table 5.1.

Table 5.1 Sensitivity of Heritage Assets to Change

Consultee	Issue	Where/How this is addressed?
Historic Scotland (HS)	Whilst the development is unlikely to have a significant impact on any sites within HS's remit, the ES should consider effects upon setting of nationally designated assets. The closest Scheduled Monuments are settlement sites and their wider setting can likely accommodate modern intrusions. Specifically mentions Mains of Aberarder Fort and Torness Cairn.	Within Likely Significant Effects section in this ES Chapter
The Highland Council Historic Environment Team	Requests assessment out to 10 km for nationally designated assets and undesignated assets of national importance as well as those whose setting contributes to significance and collections of archaeological sites that form a rich single or multi-period landscape. Cumulative assessment should extend beyond 10 km. Effects should be illustrated using photomontages. Specifically mentions Mains of Aberarder fort, Mains of Aberarder hut circles, Ruthven hut circles, Dhuallow Cairn, and West Croachy House cairns. Subsequent correspondence on 30/6/14 with the Kirsty Cameron at the HER indicated that there were no locally recorded sites within 10 km that required assessment for potential effects upon setting.	Within Likely Significant Effects section in this ES Chapter

Assessment of Effects Scope

5.10 The assessment of effects on the cultural heritage and archaeological resource considers direct (physical) and indirect (largely visual) effects upon heritage assets and archaeological sites.

Direct (Physical) Effects

5.11 The assessment of physical effects considers direct effects upon features of cultural heritage interest, where known sites or potential buried archaeology is in danger of being disturbed or destroyed (i.e. within the proposed wind farm footprint). Physical effects are likely to occur during construction and decommissioning and are permanent and irreversible.

Indirect (Largely Visual) Effects

5.12 The assessment of indirect effects considers changes in the setting which have the potential to affect heritage assets. Setting is defined by Historic Scotland as the surroundings in which a historic asset or place is experienced, understood and appreciated. This can incorporate a range of factors including views to, from and across the historic asset or place, key vistas, relationships between both built and natural features, aesthetic qualities, character of the surrounding landscape and non-visual factors such as sensory, historical or artistic values.

5.13 Setting can therefore be tangible, such as a defined boundary, or intangible, such as atmosphere or ambience. The main concern for visual effects on a cultural heritage setting is the potential for the proposed wind farm to fragment the historic landscape, separate connectivity between historic sites and impinge on views to and from sites with important landscape settings, although the visually permeable nature of the proposed wind farm may permit the visible setting and special interest to still be apparent. Visual dominance, scale, intervisibility, vistas and sight-lines as well as noise, movement and light are types of

[11] Scottish Government (July 2011) *Planning and Archaeology*; Available at: http://www.scotland.gov.uk/Publications/2011/08/04132003/0 [Accessed 16/04/2014]

[12] Scottish Government (March 2014) Our Place in Time: The Historic Environment Strategy for Scotland. Available at http://www.scotland.gov.uk/Resource/0044/00445046.pdf

[13] IfA (2012) *Standard and Guidance for historic environment desk-based assessment*, Revised November 2012. Available at http://www.archaeologists.net/sites/default/files/node-files/DBA2012-Working-draft.pdf [Accessed 05/11/2013]

[14] Historic Scotland (2010) *Managing Change in the Historic Environment: Setting*. http://www.historic-scotland.gov.uk/setting-2.pdf [Accessed on 05/11/2013]

potential effects upon features of cultural heritage interest that might be derived from wind farm projects. Indirect effects can occur during construction, operation and decommissioning. Wind farms can have a lifespan of up to 25-30 years, but the visual and any other indirect effects from this form of development are considered temporary (albeit long-term) and easily reversible.

Assessment Methodology

Baseline Characterisation

Study Area

5.14 A core archaeological study area of 3.3 km^2 was identified to cover the area potentially affected directly, i.e., the area undergoing construction works where the turbines are sited as shown in Figure 5.1. Due to the limited number of archaeological records within the immediate vicinity of the proposed wind farm (i.e. within 1 km), a 5 km radius of the core archaeological study area was used to inform the archaeological potential of the proposed wind farm (Figure 5.2) to ensure a robust dataset against which to the undertake the assessment of potential direct effects.

Desk Study / Field Survey

5.15 A desk-based assessment (DBA) of the core archaeological study area and a 5 km buffer was undertaken by Arcus (Technical Appendix 5.1). The DBA collated information from readily available documentary, cartographic and photographic evidence to provide information about the baseline condition of the site. The purpose was to identify known archaeological and cultural heritage features both within and in close proximity to the proposed wind farm, as well as to provide information on the potential for unknown (buried) archaeological remains to exist within the archaeological core study area. This was aimed primarily at establishing the potential for direct effects upon features of cultural heritage interest.

5.16 A site visit and walkover by an experienced archaeologist was undertaken in November 2013 to validate the data gained through the DBA and to identify (and if appropriate, record) any previously unrecorded cultural heritage features within the boundary. The DBA Report was completed in May 2014 and is provided within this ES as Technical Appendix 5.1.

5.17 For the purposes of evaluating indirect effects upon the setting of heritage assets, proximity to the proposed wind farm, where it is also within the Zone of Theoretical Visibility (i.e. ZTV as explained in **Chapter 4: LVIA**), has been taken as one of the determining attributes for whether further assessment is required.

5.18 In order to identify cultural heritage features with the potential for their settings to be affected by the proposed wind farm, an initial search area of 10 km was defined based on distance from the turbines. Distance and intervisibility have been used as the initial criterion in determining the whether there is potential for a significant visual effect on the settings of cultural heritage features for the purposes of determining which should be subject to more detailed consideration.

5.19 Although consideration was given initially to nationally important designated features within 15 km of the proposed wind farm, significant effects are unlikely to occur upon the settings of most types of cultural heritage assets at distances greater than 5 km from the proposed wind farm site boundary, as result of its construction and operation. However, The Highland Council Historic Environment Team requested consideration of assets out to 10 km. Subsequent consultation on 30th June 2014 indicated that there were no locally designated assets requiring assessment. As such, detailed assessment has been undertaken only for nationally designated heritage assets within 10 km of the proposed wind farm that also fall within the Zone of Theoretical Visibility (Figure 5.2).

5.20 No detailed consideration of potential effects from noise or shadow flicker has been undertaken for Cultural Heritage features, since no significant above ground or built heritage features exist within or immediately adjacent to the study area to receive any such effects. The assessment of indirect (visual) effects is based on the final form of the proposed wind farm and is discussed in the Likely Significant Effects section of this Chapter.

5.21 The final assessment is based on the site layout shown in Figure 2.1 of this ES. Distances to cultural heritage features are taken from the nearest turbine rather than the proposed wind farm site boundary. The potential for the 50 m micrositing allowance has been considered in this assessment.

Significance Criteria

5.22 This assessment proceeds from a consideration of the '*Sensitivity*' of a cultural heritage feature against the '*Magnitude*' of any potential change, to arrive at the '*Significance*' of the effect.

5.23 The matrices discussed below are not used in an arithmetic way or as a prescriptive tool. The methodology and analysis of potential effects allows for the exercise of professional judgement.

Sensitivity

5.24 For the purposes of this assessment the sensitivity of a heritage asset or receptor has initially been related to designation status. Listed Buildings are nationally designated and are placed on lists maintained by Historic Scotland. Whilst they are regarded as a nationally important resource, they are subject to a grading process (Categories A, B and C). For the purposes of this assessment, this categorisation has been taken as indicative of a presumed level of sensitivity based on rarity, period, architectural style, completeness, degree of subsequent alterations. This assessment has assigned the categories to different levels of sensitivity as shown in Table 5.2.

Table 5.2 Sensitivity of Heritage Assets to Change

Level of Sensitivity	Designation Status
Very High	World Heritage Sites, which are internationally important.
High	Scheduled Monuments (whether or not in State Care), Category A Listed Buildings, Inventoried Battlefields, and Gardens and Designed Landscapes. These are considered to be nationally important.
Medium	Category B Listed Buildings, features included on the non-statutory register (NSR), regionally important archaeological features and areas (as defined in the HER) and Conservation Areas which are considered to be regionally important.
Low	Category C Listed Buildings, sites and archaeological features noted as locally important in the Sites and Monuments Record.
Negligible	Badly preserved/damaged or very common archaeological features/buildings of little or no value at local or other scale.

Magnitude

5.25 '*Magnitude*' is a measure of the nature of the expected effect to the heritage asset or its setting. It has been broken down, for direct and indirect effects, as shown in Table 5.3.

Table 5.3 Magnitude of Change

Level of Magnitude	Definition
Very High	Total loss of or major alteration to a site, building or other feature (*e.g.* blocking or severance of key visual or other relationships).
High	Major damage to or significant alteration to a site, building or other feature. Loss of one or more key attributes. Extensive change to the setting of a Scheduled Monument , Inventoried Gardens and Design Landscapes, Listed Building or other feature (*e.g.* loss of dominance, intrusion on key view or sightline).
Medium	Damage or alteration to a site, building or other feature. Encroachment on an area considered to have high archaeological potential. Change in setting to Scheduled Monument s, Listed Buildings and other features (*e.g.* intrusion on designed sight-lines and vistas).
Low	Minor damage or alteration to a site, building or other feature. Encroachment on an area where it is considered that low archaeological potential exists. Minor change in setting of Scheduled Monument s, Listed Buildings and other features (*e.g.* above historic skylines or in designed vistas).
Negligible	No physical effect. No change in setting.

Significance of Effect

5.26 The '*Significance*' of any potential effect is arrived at by correlating '*Sensitivity*' against '*Magnitude*' as shown in Table 5.4.

Table 5.4 Significance of Effect

Magnitude / Sensitivity	Very High	High	Medium	Low	Negligible
Very High	Major	Major	Moderate	Moderate	Minor-Not Significant
High	Major	Major	Moderate	Minor-Not Significant	Negligible-Not Significant
Medium	Moderate	Moderate	Moderate	Minor-Not Significant	Negligible-Not Significant
Low	Minor-Not Significant	Minor-Not Significant	Minor-Not Significant	Negligible-Not Significant	Negligible-Not Significant
Negligible	Minor-Not Significant	Negligible-Not Significant	Negligible-Not Significant	Negligible-Not Significant	Negligible-Not Significant

5.27 A significant effect (in terms of the EIA Regulations) is considered to occur where the combination of sensitivity and magnitude results in a significance of effect that is "*major*" or "*moderate*". The assessment text considers in detail only those features for which a potential effect of "*moderate*" or higher significance is initially predicted upon the setting of the feature. A significant effect upon setting is based on the distance of the feature from the site and the feature's designation status (in accordance with the matrix presented above), and considers the potential effect against a more defined explanation of the feature's setting. Where considered necessary, setting is defined in terms of the immediate physical surroundings and associations of the feature, or in wider terms, such as the presence of key long views to or from that feature which are important to its understanding.

Baseline Conditions

5.28 The following represents a summary of the desk-based assessment found in Appendix 5.1, supplemented by consideration of cultural heritage features at a greater distance from the proposed wind farm (which may be subject to indirect effects upon their settings).

5.29 The site lies immediately to the north of the consented Dunmaglass Wind Farm on the northern edge of the Monadhliath Mountains in Inverness-shire, approximately 4.5 km to the southeast of Aberarder House which sits adjacent to the B851 within Strathnairn. The site consists of managed upland moorland with eroded hags and a northerly exposure. The site is accessed via the consented access through Dunmaglass Wind Farm.

Features within the core archaeological study area

5.30 No archaeological features, designated or otherwise, were identified within the core archaeological study area (Figure 5.1). The closest archaeological remains are located between 3 km and 5 km away, and consist of settlement activity along Strathnairn and its tributaries, outwith the upland environs in which the turbines are proposed.

5.31 Key features identified are shown on Figure 5.1.

Archaeological Potential

5.32 The DBA (Technical Appendix 5.1) has revealed that there is a very low chance of further, significant archaeological remains to be located within the archaeological core study area as settlement remains are concentrated at distances greater than 3 km from the proposed wind farm, along the lower elevations along the River Nairn and its tributaries, as shown in Figure 5.1.

Features beyond the core study area

5.33 The selection of heritage assets likely to receive a significant effect upon their setting is based upon a mixture of personal experience of analysing wind farms, review of the ZTV and consultation with the local planning authority. These are detailed below and are shown in Figure 5.2.

World Heritage Sites, Designed Gardens and Landscapes, and Conservation Areas

5.34 There are no World Heritage Sites, Designed Gardens and Landscapes or Conservation Areas within 10 km of the proposed wind farm. As such, these assets are not considered further within this assessment.

Scheduled Monuments

5.35 There are 21 Scheduled Monument Monuments within 10 km of the core archaeological study area, eight of which fall within the ZTV and have the potential to receive a significant effect upon their setting, as listed in Table 5.5 and shown in Figure 5.2.

Table 5.5 Scheduled Monuments within 10 km

Index No.	Scheduled Monument Name	In ZTV
4501	Tom Buidhe, enclosure 480 m NNE of Ruthven	No
4532	Ceapmaol, settlement 300 m ENE of	No
4538	Farraline, enclosure 780 m NE of	No
11431	Ballachar, settlement, hut circles and field systems 275 m NNW of	Yes
11433	West Croachy House, cairns 1000 m ESE of	No
11434	Shenval, settlement	Yes
11436	Dalcrombie, hut circles, settlement & field system 300 m NNW of	Yes
11468	Dhuallow, cairn 195 m E of	No
11476	Ruthven, crannog 610 m NNE of	No
11490	Loch Ruthven, crannog 490 m SSW of Tullich	No
11493	Creagan an Tuirc, fort	No
11495	Brin Nursery, barrow cemetery 70 m NNW of	No
11500	Druimantorran, hut circles and field system 1525 m NE and 1460m ENE of	Yes
11540	Leadclune, cairn 1115 m E of, Creag Innis an Daimh Dhuibh	Yes
11541	Mains of Aberarder, fort 270 m S of	Yes
11542	Mains of Aberarder, hut circle 1145 m ESE of	No
11544	Glen Nairn, hut circle 270 m ENE of	Yes
11613	Tullich, settlements 760 m NNE of	No
11710	Torness Cottage, two hut circles 300 m SSW of	No
11800	Torness, cairn 305 m NNW of	No
11826	Ruthven, hut circles, field systems and burnt mounds 1200 m S of	Yes

Listed Buildings

5.36 There are 13 Listed Buildings within 10 km of the core archaeological study area, of which four fall within the ZTV and have the potential to receive a significant effect upon their setting as listed in Table 5.6 and shown in Figure 5.2.

Table 5.6 Listed Buildings within 10 km

Historic Building No.	Listed Building Name	Category	In ZTV
534	Abersky Farmhouse	B	Yes
539	Farraline House	B	No
540	Farraline House, Walled Garden	B	No
541	Gorthleck House	C	No
542	Mains Of Gorthleck	B	No
543	Leadclune	C	No
1682	Dunmaglass Bridge	B	No
1684	Flichity House	B	Yes

Historic Building No.	Listed Building Name	Category	In ZTV
1697	Aberarder House	B	Yes
1698	Cruachy, Tomintoul House	B	No
42470	Bridgend Farmhouse With Byre	B	Yes
50029	Errogie, Former United Free Church, Boundary Walls	C	No
50031	Errogie, Corrugated-Iron Cottage	C	No

Likely Significant Effects

5.37 Only those heritage assets within the 10 km study area and within the ZTV were identified as requiring assessment, as detailed in the following section.

Construction Effects

5.38 The proposed wind farm will not have a direct effect upon any known cultural heritage as no cultural heritage assets have been recorded within the core archaeological study area or within 3 km of the proposed wind farm, as shown in Figure 5.1.

5.39 The potential for direct effects to occur in relation to currently unknown buried archaeological remains is very low as most occupational and settlement sites are located at lower elevations, generally along the Strathnairn approximately 4 km - 5 km to the north of the proposed wind farm. As the proposed wind farm and construction area is within exposed upland moorland, should any archaeological remains be present, they would likely relate to transhumance activities; however, known transhumance sites within the vicinity of the proposed wind farm are recorded at lower elevations. Due to the likely low sensitivity of these potential remains and low to negligible magnitude of change, if present, it is considered that the proposed wind farm would have a negligible to minor significance of effect on unknown archaeological remains. This effect is not significant in terms of EIA regulations.

5.40 Potential indirect effects (upon the settings of features of cultural heritage interest) are considered in respect of the operational form of the proposed wind farm. Construction effects (such as the erection and operation of cranes etc.) will be temporary only and their effects will not differ from, or be of a greater magnitude than, those anticipated from the operational form of the proposed wind farm.

Operational Effects

5.41 No direct operational effects on any archaeological remains are anticipated during the operation of the proposed wind farm.

5.42 The potential for indirect operational effects upon cultural heritage features and their setting is considered in the following sections.

Scheduled Monuments

5.43 Scheduled Monuments are nationally designated and are considered to be of high sensitivity. There are eight Scheduled Monuments situated within 10 km of the proposed wind farm that have predicted visibility (i.e. are within the ZTV) as shown on Figure 5.2. These are discussed in more detail in the following section.

Ballachar settlement, hut circles and field system (11431)

5.44 Ballachar settlement is located approximately 7.5 km north-northwest of the nearest turbine (T12) and comprises the remains of two prehistoric hut circles as well as rectilinear and sub-rectangular structures. This likely comprises a township of medieval or later date. Additionally, there are several field clearance cairns and a series of lynchets and dykes present. There are two existing small scale turbines located just to the west of this Scheduled Monument.

5.45 There are some low lying rock features/foundations visible upon the surface with subsurface archaeological deposits likely. As such, the settlement is considered of national importance for its historical and archaeological potential to yield information in relation to multi-period upland settlement and land use.

5.46 The setting of the Scheduled Monument is considered to extend to the valley containing Loch Ruthven as the settlement sits on a small spur towards the upper reaches of this valley with views over the loch. The settlement's setting is not considered to extend greatly beyond this although that the tops of the Monadhliath Mountains are visible to the south behind the adjacent ridgeline of Craig Ruthven, Stac Gorm, Creagan Eidhein and Carn na Croiche.

5.47 Although situated within the ZTV, there will be no views of the proposed wind farm from the settlement itself, as shown by the wireline in Figure 5.3, and limited views from its setting. Additionally, as a settlement, important views towards Ballachar would be from the immediately adjacent areas around the settlement (i.e. its setting), and the proposed wind farm does not interfere or affect with these views. The turbine blades may be marginally visible in the small saddle between Creagan Eidhein and Carn na Croiche from limited locations within the setting; however, this does not result in any change to its setting or in the ability to appreciate the setting's contribution to the Ballachar's historical and archaeological significance.

5.48 As the settlement remains of Ballachar and its setting will be unaffected by the proposed wind farm, the proposed wind farm will have an effect of negligible magnitude upon a feature of high sensitivity, and the significance of the effect is negligible.

Shenval Settlement (11434)

5.49 Shenval settlement is located approximately 7.6 km north of the nearest turbine (T10). The settlement consists of the upstanding remains and footings of a large farmstead or small township, between 300 and 100 years old, sitting on a shoulder of ground on the upper

south-facing slopes of Strathnairn. The ruins of at least seven buildings and a k iln are visible, along with a number of enclosures and field walls.

5.50 The settlement ruins are considered of national importance for their historical and archaeological potential to yield information relating to 19th century farming complexes, specifically the range of buildings and architectural components used during this period.

5.51 The setting of the Scheduled Monument is considered to extend along Strathnairn within the immediate vicinity of the Shenval settlement. The settlement's setting is not considered to extend greatly beyond this although the tops of the Monadhliath Mountains are visible to the south beyond the intervening foothills of Carn Mor, Creag Cuirn na Laraiche, Carn Leachter, Cnoc Chaorachain, Cairn Doire na h-Achlais, and Beinn Acha Bhraghad.

5.52 Although situated within the ZTV, there will be limited views of the turbine tips from the Shenval and its setting, as sho wn by the wireline in Figure 5.4. Additionally, as a settlement, important views towards the settlement remains would be from the immediately adjacent areas within the setting, and t he proposed wind farm does not interfere or affect with these views. Turbine blade tips may be marginally visible in the small saddles on either side of Coille Mhor with the proposed wind farm tips visible to the east side of Coille Mhor and Dunmaglass Wind Farm turbine tips (currently under construction) visible to the west. However, this does not result in any change to the setting of the settlement or in the ability to appreciate the setting's contribution the Shenval's historical and archaeological significance.

5.53 As the Shenval and its setting will be unaffected by the proposed wind farm, the proposed wind farm will have an effect of negligible magnitude upon a feature of high sensitivity, and the significance of the effect is negligible.

Dalcrombie Hut Circles, Settlement And Field System (11436)

5.54 Dalcrombie hut circles, settlement and field system is located approximately 8.1 km north-northwest of the nearest turbine (T12) and c omprises the remains of two prehistoric hut circles as well as f ive rectangular structures which likely comprise a township of post-medieval date. Additionally, there are several field clearance cairns and a series of lynchets and dykes present.

5.55 There are some low lying rock features/foundations are visible upon the surface with subsurface archaeological deposits likely. As such, the settlement is considered of national importance for its historical and archaeological potential to yield information in relation to multi-period upland settlement and land use.

5.56 The setting of the Scheduled Monument is considered to extend to the valley containing Loch Ruthven as the settlement sits on a small shelf of rising ground at the upper reaches of this valley with views over the loch. There are two existing small scale turbines located just to the east of the settlement remains. The settlement's setting is not considered to extend greatly beyond this although the tops of the Monadhliath Mountains are visible to the south behind the adjacent ridgeline of Craig Ruthven, Stac Gorm, Creagan Eidhein and Carn na Croiche.

5.57 Although situated within the ZTV, there will be limited views of the turbines from the settlement and i ts setting, as sho wn by the wireline in Figure 5.5. Additionally, as a settlement, important views towards the asset would be from the immediately adjacent areas of the setting, and the proposed wind farm does not interfere or affect with these views. The proposed wind farm turbines are largely situated within the spread of Dunmaglass turbines currently under construction; however, the view of blade tips is extended slightly to the east with the addition of the proposed wind farm. As the immediate setting of the settlement already contains two small scale turbines and t he proposed wind farm turbines will appear as an extension of the Dunmaglass turbines, this does not result in any change to the setting of the settlement or in the ability to appreciate the setting's contribution the asset's historical and archaeological significance.

5.58 As Dalcrombie and its setting will be unaffected by the proposed wind farm, the proposed wind farm will have an effect of negligible magnitude upon a feature of high sensitivity, and the significance of the effect is negligible.

Druimantorran Hut Circles and Field System (11500)

5.59 Druimantorran hut circles and field system is located approximately 6.9 km northwest of the nearest turbine (T12). The Scheduled Monument comprises the remains of four hut circles with the footings of the walls of roundhouses likely to be of Late Bronze Age or Iron Age in date. It also encompasses associated field boundaries, including a gateway and f ield clearance cairns. The remains are located on an area of gently sloping ground along the southwesterly slopes of Cairn Ardachy.

5.60 The hut circles are visible as br acken and he ather covered banks with subsurface archaeological deposits likely. As such, the settlement is considered of national importance for historical and archaeological potential to yield information in relation to prehistoric lifeways.

5.61 The setting of the Scheduled Monument is considered to extend to the valley containing the B862 and B 851 as the settlement is sited on the slopes of Cairn Ardachy with views down this valley to the southwest. The Scheduled Monument's setting is not considered to extend greatly beyond this although the tops of the Monadhliath Mountains are visible to the southeast behind the adjacent ridgeline of Carn Bad-Earbaig, Carn Righean and Me ill Ghuirmein.

5.62 Although situated within the ZTV, there will be only limited views of the turbines(parts of 6 turbines) from the settlement and its setting, as sho wn by the wireline in Figure 5.6. Additionally, as settlement remains, important views towards Druimantorran would be from the immediately adjacent areas of the setting, and t he proposed wind farm does not interfere or affect these views. Turbine blade tips may be marginally visible outwith the setting in the small saddles between Carn Bad-Earbaig, Carn Righean and Me ill Ghuirmein.

However, this does not result in any change to the setting of Druimantorran or in the ability to appreciate the setting's contribution the Scheduled Monument's historical and archaeological significance.

5.63 As Druimantorran and its setting will be unaffected by the proposed wind farm, the proposed wind farm will have an effect of negligible magnitude upon a feature of high sensitivity, and the significance of the effect is negligible.

Leadclune Cairn (11540)

5.64 Leadclune Cairn is located approximately 8.2 km northwest of the nearest turbine (T12). The cairn is a large pile of stones on the southwesterly slopes of Creag Innish an Daimh Dhuibh and is likely of Bronze Age date. The cairn is located within forestry.

5.65 Whilst the stones are visible upon the surface, the Cairn is considered of national importance for its historical and archaeological potential of its subsurface archaeological remains to yield information in relation to prehistoric ritual and funerary practices as well as social structure.

5.66 The setting of the Scheduled Monument is currently limited by the use of the immediately adjacent areas for active forestry; however, based upon its location upon the southwesterly slopes of Creag Innish an Daimh Dhuibh, the setting without forestry would likely extend to include views to and from the River Farigaig and the small valley below the Cairn containing the B862. The setting of the Cairn is not considered to extend greatly beyond this although, without the forestry, there would likely be long-distance views of the tops of the Monadhliath Mountains which form part of the larger landscape backdrop to the cairn and its setting.

5.67 Although situated within the ZTV, there will be no views of the proposed wind farm from the Cairn due to the forested nature of its surroundings; however, without the forestry, the proposed wind farm turbines would be visible to the south with the proposed wind turbines to the east of Coille Mhor and the Dunmaglass turbines to the west, as shown by the wireline in Figure 5.7. However, this is outwith the setting and does not result in any change to the setting of the Cairn or in the ability to appreciate the setting's contribution the Cairn's historical and archaeological significance.

5.68 As the Cairn and its setting will be unaffected by the proposed wind farm, the proposed wind farm will have an effect of negligible magnitude upon a feature of high sensitivity, and the significance of the effect is negligible.

Mains of Aberarder Fort (11541)

5.69 The Mains of Aberarder Fort is located approximately 4.1 km northwest of the nearest turbine (T12). The Scheduled Monument comprises the remains of an unfinished Iron Age fort, visible as a series of walls, ditches and revetments. The fort is located along a ridge overlooking the headwaters of the River Nairn to the east.

5.70 Whilst the fort is visible upon the surface, there is an aerial antenna and post and wire fence within the scheduled boundaries. It has also been partially planted with conifers and the lower edge of the ridge below the fort has been subject to quarrying. As such, the settlement is considered of national importance for its historical and archaeological potential of its subsurface archaeological remains to yield information relating to late prehistoric domestic and defensive structures.

5.71 The setting of the Scheduled Monument is considered to extend to the adjacent valley containing the River Nairn as the elevated location of the fort offers defensive views to and from the river. The fort's setting is not considered to extend greatly beyond this although there are views of the Monadhliath Mountains to the south behind the adjacent ridgeline containing Garbhal Mor and Ben Dhuidhe which form part of the larger landscape background to the fort.

5.72 Due to the surrounding topography, views towards the proposed wind farm would be limited by distance and intervening topography, specifically Beinn Bhuidhe and Coille Mhor. Only 5 turbines of the proposed wind farm would be marginally visible (hub height or less) extending to the east of Coille Mhor to Carn Ghriogair, as shown by the wireline in Figure 5.8. However, this does not result in any change to the setting of the fort or in the ability to appreciate the setting's contribution to the asset's historical and archaeological significance.

5.73 As the Scheduled Monument and its setting will be unaffected by the proposed wind farm, the proposed wind farm will have an effect of negligible magnitude upon a feature of high sensitivity, and the significance of the effect is negligible.

Glen Nairn Hut Circle (11544)

5.74 Glen Nairn Hut Circle is located approximately 9.9 km north of the nearest turbine (T7). The hut circle comprised the footings of a prehistoric round house dating to the Bronze Age. It is situated on moorland overlooking the River Nairn and Lochan Dubh.

5.75 Whilst the stone foundations are marginally visible upon the surface but covered by heather, the settlement is considered of national importance for its historical and archaeological potential to yield information relating to late prehistoric house building and domestic life.

5.76 The setting of the Scheduled Monument is considered to extend along Strathnairn with views that encompass the immediate vicinity of the valley. Glen Nairn's setting is not considered to extend greatly beyond this although there are views of the tops of the Monadhliath Mountains to the south which form part of the larger landscape background to the monument.

5.77 Although situated within the ZTV, views of the Monadhliath Mountains are long-distance views with up to 5 of the proposed wind farm turbines visible on either side of Coille Mhor, as shown by the wireline in Figure 5.9. Additionally, as the hut circles are settlement remains, important views towards Glen Nairn would be from the immediately adjacent areas of the setting, and the proposed wind farm does not interfere or affect with these views. As such, this does not result in any change to the setting of Glen Nairnor in the ability to appreciate the setting's contribution to its historical and archaeological significance.

5.78 As the Scheduled Monument and its setting will be unaffected by the proposed wind farm, the proposed wind farm will have an effect of negligible magnitude upon a feature of high sensitivity, and the significance of the effect is negligible.

Ruthven Hut Circles, Field Systems and Burnt Mounds (11826)

5.79 Ruthven hut circles, field systems and burnt mounds are located approximately 5.7 km northwest of the nearest turbine (T12). The monument comprises the remains of domestic buildings and agricultural land use, likely dating to the Late Bronze Age or Iron Age. The asset is located in upland rough grazing and pasture on a generally west-facing slope above the River Farigaig.

5.80 The settlement remains are marginally visible upon the surface as low lying mounds and ditches with subsurface archaeological deposits likely. As such, the settlement is considered of national importance for its historical and archaeological potential to yield information relating to upland agriculture and settlement expansion during prehistory.

5.81 The setting of the Scheduled Monument is considered to extend along the Farigaig River Valley within the immediate vicinity of the settlement. The monument's setting is not considered to extend greatly beyond this although the tops of the Monadhliath Mountains are visible to the south forming part of the larger landscape background to the Scheduled Monument and its setting.

5.82 As a settlement, important views towards the Scheduled Monument would be from the immediately adjacent areas of the setting, and the proposed wind farm does not interfere or affect with these views. The proposed wind farm turbines would be visible behind the southerly foothills to the east of Coille Mhor, as shown by the wireline in Figure 5.10. However, due to their distance, these are outwith the setting and do not result in any change to the setting of the settlement or in the ability to appreciate the setting's contribution the Ruthven settlement's historical and archaeological significance.

5.83 As the Scheduled Monument and its setting will be unaffected by the proposed wind farm, the proposed wind farm will have an effect of negligible magnitude upon a feature of high sensitivity, and the significance of the effect is negligible.

Listed Buildings

5.84 Listed Buildings are nationally designated and are considered to be of high (Category A), medium (Category B) and low (Category C) sensitivity. There are four Category B Listed Buildings situated within 10 km that fall within the ZTV as shown on Figure 5.2.

Abersky Farmhouse (534)

5.85 Abersky Farmhouse is a Category B Listed Building located approximately 7.4 km northwest of the nearest turbine (T12). The farmhouse is a symmetrical two-storey, three-bay house built circa 1850. The farmhouse is considered of national importance for it historic and architectural value relating to late 19th century domestic and agricultural lifeways.

5.86 The farmhouse is situated on a bend of the River Farigaig with views that extend to the west and south along the river valley over the lowland pastures that would have formed the historic farmstead. The setting of the farmhouse is considered to extend along this river valley and not to extend greatly beyond this. Whilst the tops of the Monadhliath Mountains are visible to the south, these form part of the larger landscape background to the farmhouse and its setting.

5.87 Although the house is situated within the ZTV, the proposed wind farm turbines would be visible behind the southerly foothills to the east of Coille Mhor, as shown by the wireline in Figure 5.11. However, these views would be largely screened by mature trees that surround the house and would only by visible from the setting when looking away from the house. This does not result in any change to the setting of the house or in the ability to appreciate the setting's contribution to the farmhouse's historical and architectural significance.

5.88 As the listed building and its setting will be unaffected by the proposed wind farm, the proposed wind farm will have an effect of negligible magnitude upon a feature of medium sensitivity, and the significance of the effect is negligible.

Flichity House (1684)

5.89 Flichity House is a Category B Listed Building located approximately 7.1 km north of the nearest turbine (T10). Flichity House is a large asymmetrical baronial house with a square tower that was remodelled in 1907. Flichity House is considered of national importance for it architectural value relating to country houses and estates.

5.90 Flichity House is situated amidst forestry on the north-facing slopes of the Strathnairn with the Monadhliath Mountains rising behind the house to the southeast. The setting of the house is limited to the open valley between the house and the River Nairn and does not to extend greatly beyond this although the Monadhliath Mountains provide a backdrop to the house to the southeast.

5.91 Although the house is situated within the ZTV, only three of the proposed wind farm turbine tips would be marginally visible to the southeast, as shown by the wireline in Figure 5.12. However, these views would be screened by forestry to the rear of the house which extends up the immediately adjacent hillsides. Key views towards the house would be from the valley looking towards the southeast with the proposed wind farm turbines further to the south outwith this view. As such, this does not result in any change to the setting of the house or in the ability to appreciate the setting's contribution to the Flichity House's historical and architectural significance.

5.92 As the listed building and its setting will be unaffected by the proposed wind farm, the proposed wind farm will have an effect of negligible magnitude upon a feature of medium sensitivity, and the significance of the effect is negligible.

Aberarder House (1697)

5.93 Aberarder House is a Category B Listed Building located approximately 4.8 km north-northwest of the nearest turbine (T12). Aberarder House is a mid-late 17th century house that was remodelled in the late 19th century. Aberarder House is considered of national importance for it historical and architectural value.

5.94 Aberarder House is situated to the west of the River Nairn. The immediately surrounding landscaped grounds form part of its setting as do views extending to the south up the River Nairn to the foothills of Poullachie and Garbhal Mor. The Monadhliath Mountains to the south beyond the foothills from part of the larger landscape backdrop to the setting.

5.95 The proposed wind farm turbines would be visible to the south in the background beyond Cairn Poullachi and Garbhal Mor, as shown by the wireline in Figure 5.13. However, these views would be screened by mature landscaping along the B851 which limits long-distance views from the house itself. Additionally, key views towards the house would be from the valley containing the B851 with the proposed wind farm would always being behind the viewer from this location. As such, this does not result in any change to the setting of the house or in the ability to appreciate the setting's contribution to the Aberarder House's historical and architectural significance.

5.96 As the listed building and its setting will be unaffected by the proposed wind farm, the proposed wind farm will have an effect of negligible magnitude upon a feature of medium sensitivity, and the significance of the effect is negligible.

Bridgend Farmhouse with Byre (42470)

5.97 Bridgend Farmhouse with Byre is a Category B Listed Building located approximately 4.8 km north-northwest of the nearest turbine (T12). The farmhouse and byre date to the early 19th century and are currently unoccupied. The farmhouse and byre is considered of national importance for it architectural value and survival of vernacular features.

5.98 The farmhouse is situated on the eastern banks of the River Nairn at the northwest foot of Cairn Poullachie. There are some limited views extending to the south up the river; however, these views are largely obscured by Cairn Poullachie. As such, the key views contributing to the heritage value of the farmhouse are those to and from the fields along the River Nairn associated with the farmstead and which comprise its setting.

5.99 Although situated within the ZTV, there will be no views of the proposed wind farm from the house, as shown by the wireline in Figure 5.14, and limited views from its setting. This does not result in any change to its setting or in the ability to appreciate the setting's contribution to the farmhouse and byre's historical and architectural significance.

5.100 As the listed building and its setting will be unaffected by the proposed wind farm, the proposed wind farm will have an effect of negligible magnitude upon a feature of medium sensitivity, and the significance of the effect is negligible.

Decommissioning Effects

5.101 No direct effects upon any known features of cultural heritage interest are anticipated from the decommissioning phase of the proposed wind farm. The decommissioning phase of the proposed wind farm will restore the site to its pre-proposed wind farm appearance, and hence there will be no indirect effects of the proposed wind farm on features of cultural heritage interest during the decommissioning phase.

Mitigation and Residual Effects

5.102 No significant effects in terms of EIA regulations have been identified for the proposed wind farm.

5.103 There will be no direct effects upon any known archaeological features and the potential to encounter unknown subsurface archaeological remains is very low. Additionally, no indirect effects upon the setting of designated heritage assets were identified.

5.104 Due to there being very low potential for further unknown significant archaeological remains within the turbine envelope, it is considered that mitigation is not required; however, any final requirements or lack thereof should be agreed in consultation with The Highland Council Historic Environment Team.

Cumulative Effects

5.105 This section considers the potential for cumulative effects to occur on the settings of cultural heritage features arising from the addition of the proposed turbines to a baseline situation which contains those wind farm schemes detailed in Table 5.7.

Table 5.7 Wind Farms within 15 km

Wind Farm	Status
Allt Duine Wind Farm	Awaiting Decision at PLI
Corriegarth Wind Farm	Consented
Dunmaglass Wind Farm	Under Construction
Farr Wind Farm	Installed
Kyllachy Wind Farm	Application

5.106 In undertaking the assessment, use has been made of the cumulative ZTVs produced as part of the landscape and visual assessment. Locations of the wind farms under discussion are shown in Figure 4.6.

5.107 Dunmaglass Wind Farm is located adjacent to the southwest boundary of the proposed wind farm and has been considered as part of the baseline condition in the assessment, as discussed in the Likely Significant Effects section. Due to the proximity of Dunmaglass Wind

Farm to the proposed wind farm as well as the similar scaled turbines, they will appear as a single wind farm from a distance with the proposed wind farm slightly extending the view of turbines to the east when viewed from assets to the north and northwest. No significant effects on any heritage assets within 10 km of the proposed wind farm and Dunmaglass Wind Farm were identified in the Likely Significant Effects section.

5.108 Allt Duine Wind Farm is located approximately 14 km to the southeast of the proposed wind farm. Heritage assets located between these two wind farms occur along the River Findhorn and its tributaries, outwith the ZTV for the proposed wind farm. As such, there are no heritage assets within 15 km of the proposed wind farm that will have views of both Allt Duine and the proposed wind farm. As such, there will be no cumulative effect resulting from the addition of the proposed wind farm to a baseline that includes the proposed Allt Duine Wind Farm.

5.109 The remaining three wind farms area spread along the Monadhliath Mountains in a northeast/southwest alignment. Farr and Kyllachy Wind Farms will appear as one large wind farm located approximately 9.5 km northeast and Corriegarth Wind Farm located 8 km to the southwest with Dunmaglass and the proposed wind farm located in the middle, as shown in Figure 4.6. Based on sensitivity and distance it has been considered that the following cultural heritage assets (Table 5.8) located to the north and east of the proposed wind farm have the potential to receive a significant cumulative effect and this potential is assessed below.

Table 5.8 Scheduled Monuments within 15 km with potential to receive cumulative effects

Index No.	Scheduled Monument Name	Cumulative Visibility
11431	Ballachar, settlement, hut circles and field systems 275m NNW of	Proposed Wind Farm, Farr and Kyllachy
11434	Shenval, settlement	Proposed Wind Farm, Farr and Kyllachy
11540	Leadclune, cairn 1115m E of, Creag Innis an Daimh Dhuibh	Proposed Wind Farm, Corriegarth, Farr and Kyllachy
11544	Glen Nairn, hut circle 270m ENE of	Proposed Wind Farm, Farr and Kyllachy

11431 Ballachar Settlement, 11434 Shenval settlement, and 11544 Glen Nairn hut circle

5.110 Ballachar settlement, Shenval settlement and Glen Nairn hut circles were assessed in the Likely Significance Effects section of this ES as having a negligible significance of effect when considered for the proposed wind farm and the Dunmaglass Wind Farm (under construction).

5.111 Cumulatively, to the east lie the installed Farr Wind Farm and proposed Kyllachy Wind Farm.

5.112 The addition of the proposed wind farm to the cumulative baseline would contribute additional turbines in views from the setting to the south. However, the proposed wind farm and the Dunmaglass Wind Farm (under construction) will appear as one wind farm to the south whilst Farr and Kyllachy would appear as one wind farm to the east. Due to the limited visibility of these turbines as part of the wider background out with the setting of these Scheduled Monuments, combined with their distance from the assets, this is considered to be an effect of negligible magnitude.

5.113 It is considered that the contribution of the proposed wind farm to the cumulative baseline will have an effect of negligible magnitude upon features of high sensitivity. This is considered to be an effect of negligible significance. This effect is not significant in terms of the EIA regulations.

11540 Leadclune, cairn 1115m East of, Creag Innis an Daimh Dhuibh

5.114 Leadclune Cairn was assessed in the Likely Significance Effects section of this ES as having a negligible significance of effect when considered for the proposed wind farm and the Dunmaglass Wind Farm (under construction).

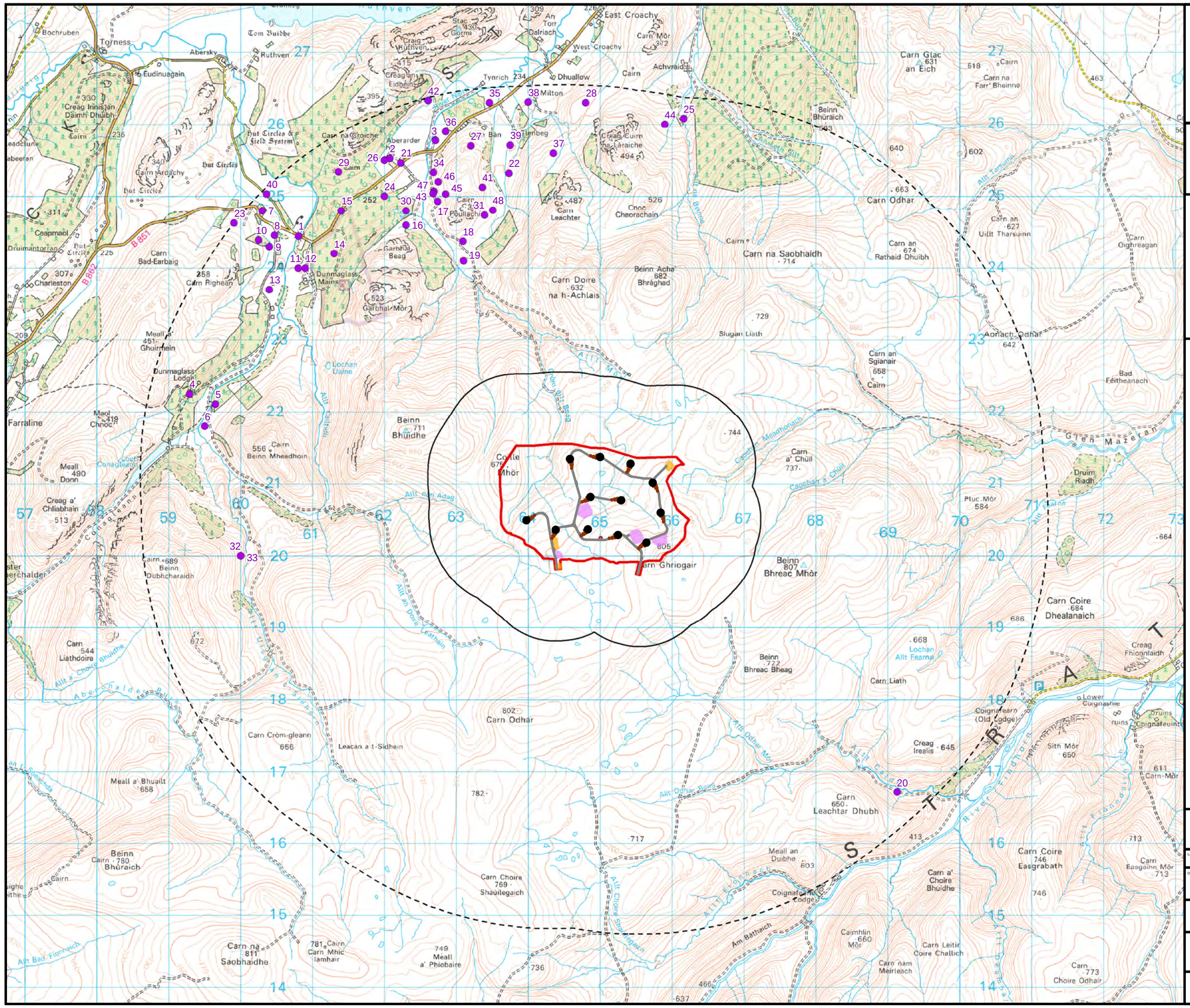
5.115 Cumulatively, to the east lies the installed Farr Wind Farm and proposed Kyllachy Wind Farm with the consented Corriegarth Wind Farm directly south the cairn. The Dunmaglass Wind Farm and the proposed wind farm lie to the southeast of the cairn. This creates three clusters of turbine running in an northeast/southwest alignment along the higher elevations of the Monadhliath Mountains which form part of the larger backdrop to the setting of the Cairn. As the three clusters are already existing with the installed Farr Wind Farm to the east (with the proposed Kyllachy Wind Farm essentially visible as an extension), the Dunmaglass Wind Farm under construction to the southeast and the consented Corriegarth Wind Farm to the south, it is considered that the contribution of the proposed wind farm to the cumulative baseline will have an effect of negligible magnitude upon a feature of high sensitivity. This is considered to be an effect of negligible significance. This effect is not significant in terms of the EIA regulations.

Summary

5.116 No significant direct or indirect effects arising are anticipated upon any heritage assets; therefore, no mitigation has been proposed or is considered necessary.

Table 5.7: Summary of Effects

Potential Effect	Mitigation	Residual Effect
Construction Effects		
No direct effects upon known archaeological remains Potential to encounter unknown subsurface remains is low.	None proposed; however, final requirements or lack thereof should be agreed in consultation with The Highland Council Historic Environment Team	Effects may be of negligible to minor significance prior to mitigation. Implementation of mitigation does not change the effect as it remains not significant in terms of EIA regulations.
No indirect effects identified for construction.	None proposed.	Not significant
Operational Effects		
No direct effects are anticipated during operation	None proposed.	Not significant.
Potential indirect effects of negligible significance and a cumulative effect of negligible significance.	None proposed.	Not significant
Decommissioning Effects		
No direct effects upon known or unknown archaeological remains are predicted.	None proposed.	Not significant.
Removal of potential indirect effects on setting of heritage assets affected by the proposed wind farm.	None proposed.	Not significant.



res

ARCUS

Aberarder Wind Farm

FIGURE 5.1

Archaeological Features within 5 km

● Proposed Turbine Location

● Archaeological Feature

🟥 Site Boundary

☐ 1 km Study Area

⬚ 5 km Study Area

— Access Tracks & Passing Places

— Structures

— Crane Hardstanding

— Mast & Hardstanding

▨ Borrow Pit Search Area

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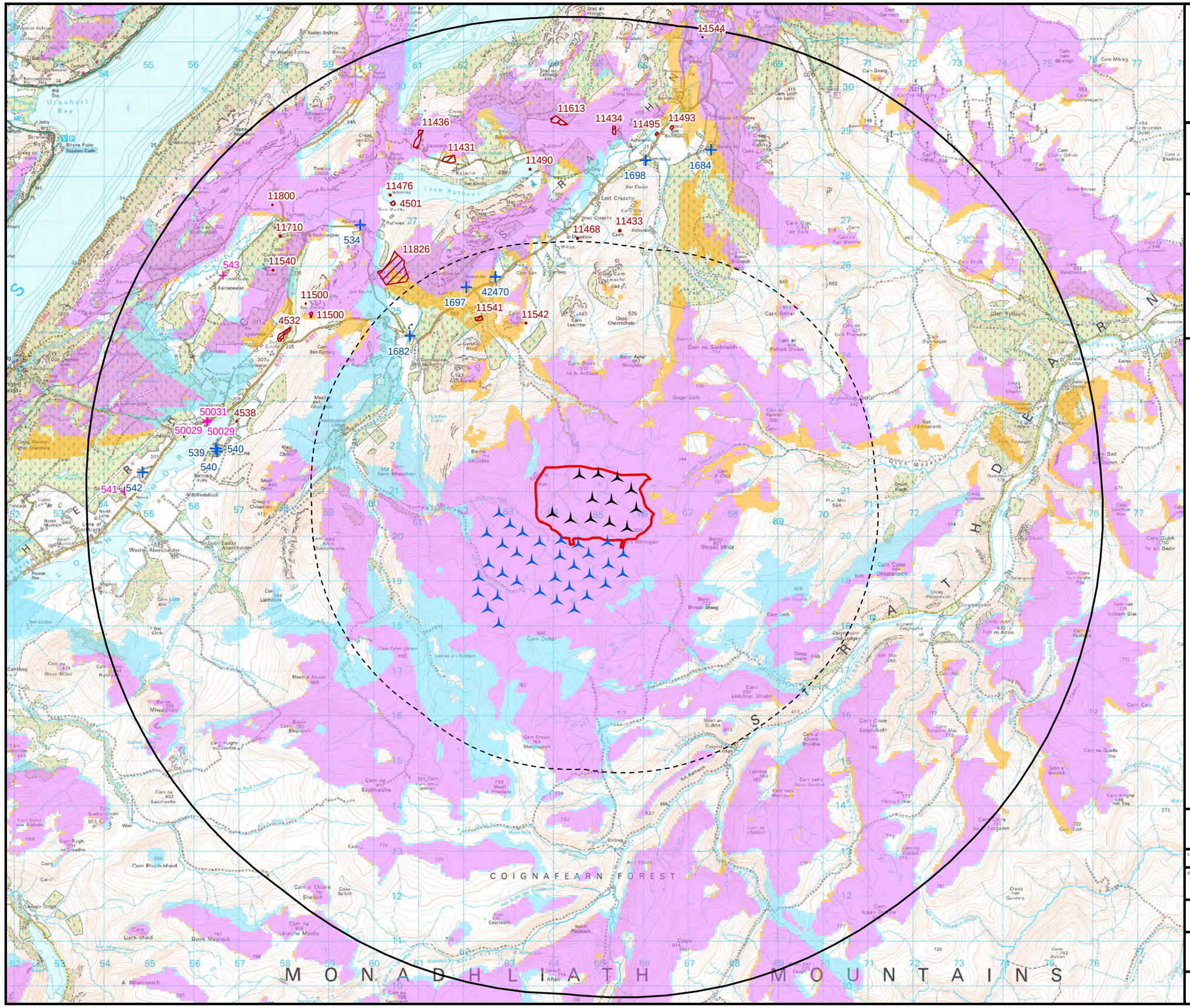
LAYOUT DWG N/A
T-LAYOUT NO. N/A

DRAWING NUMBER
1325/REP/003

SCALE - 1:50,000 @ A3

ENVIRONMENTAL STATEMENT



Aberarder Wind Farm

FIGURE 5.2

Setting Assessment Features

- Proposed Turbine Location
- Dunmaglass Wind Farm
- Site Boundary
- 5 km Study Area
- 10 km Study Area

Zone of Theoretical Visibility

- Aberarder Wind Farm may be visible
- Dunmaglass Wind Farm may be visible
- Both Wind Farms may be visible
- Category B Listed Building
- Category C Listed Building
- Scheduled Monuments

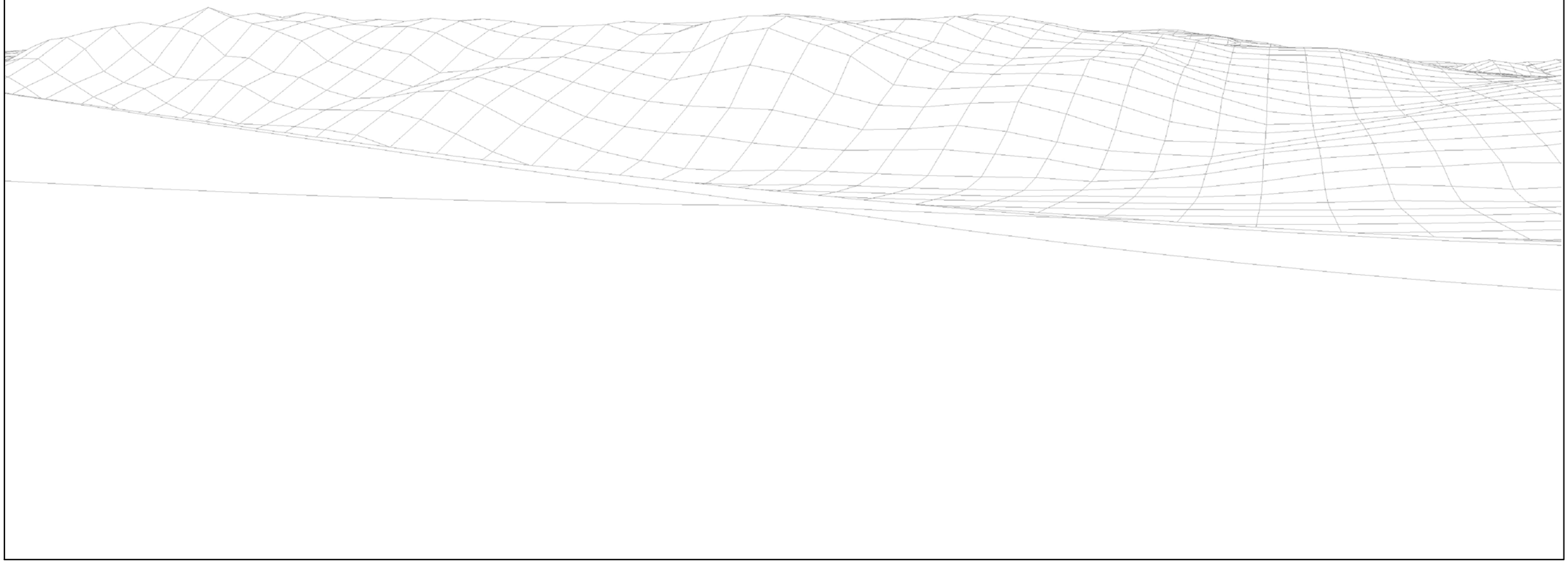
N

LAYOUT DWG	T-LAYOUT NO.
N/A	N/A

DRAWING NUMBER
1325/REP/004

SCALE - 1:80,000 @ A3

ENVIRONEMENTAL STATEMENT



Computer generated wireline showing proposed development in red and consented Dunmaglass turbines in green

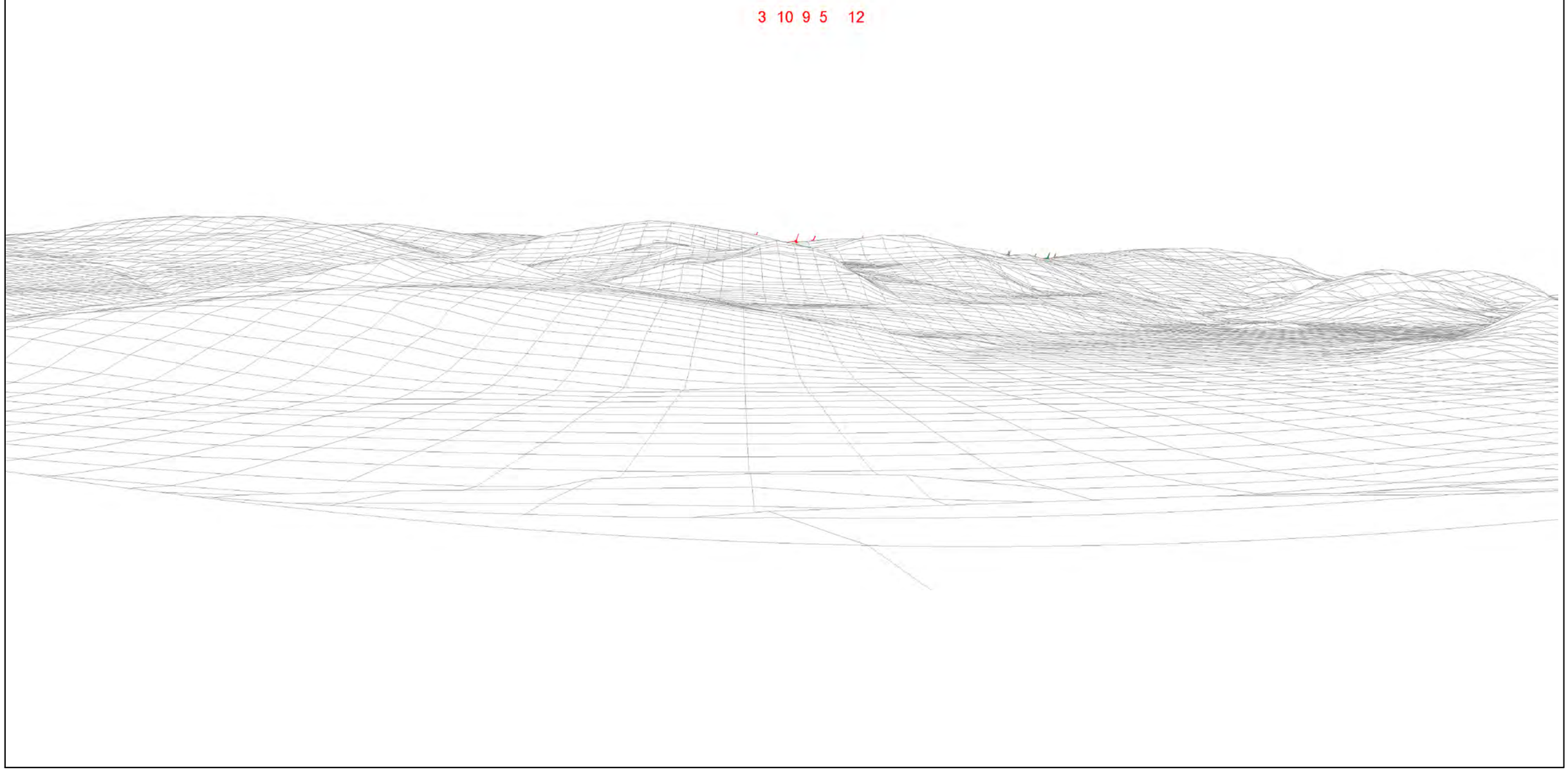
Viewpoint Location:	*261686mE 828382mN*
View Direction:	*156.10 degrees*
Camera Elevation:	*287m AOD*
Distance to Nearest Turbine:	*7603m*
Horizontal Field of View:	*75 degrees*
Viewing Distance:	*302 mm*

Ref: 1325/REP/005 Drawn: GC Reviewed: HK Approved: HK

VIEWPOINT CONTEXT

CHVP1 - Scheduled Monument Index No. 11431: Ballachar settlement, hut circles and field systems
Figure 5.3

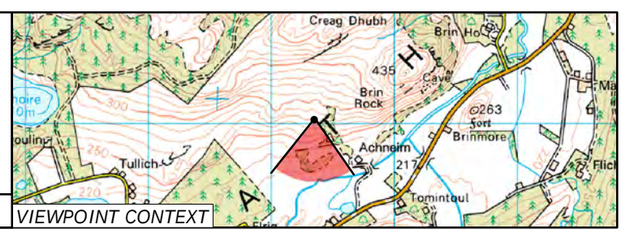
Aberarder Wind Farm
Environmental Statement



Computer generated wireline showing proposed development in red and consented Dunmaglass turbines in green

Viewpoint Location:	*265353mE 829028mN*
View Direction:	*181.96 degrees*
Camera Elevation:	*281m AOD*
Distance to Nearest Turbine:	*7662m*
Horizontal Field of View:	*75 degrees*
Viewing Distance:	*302 mm*

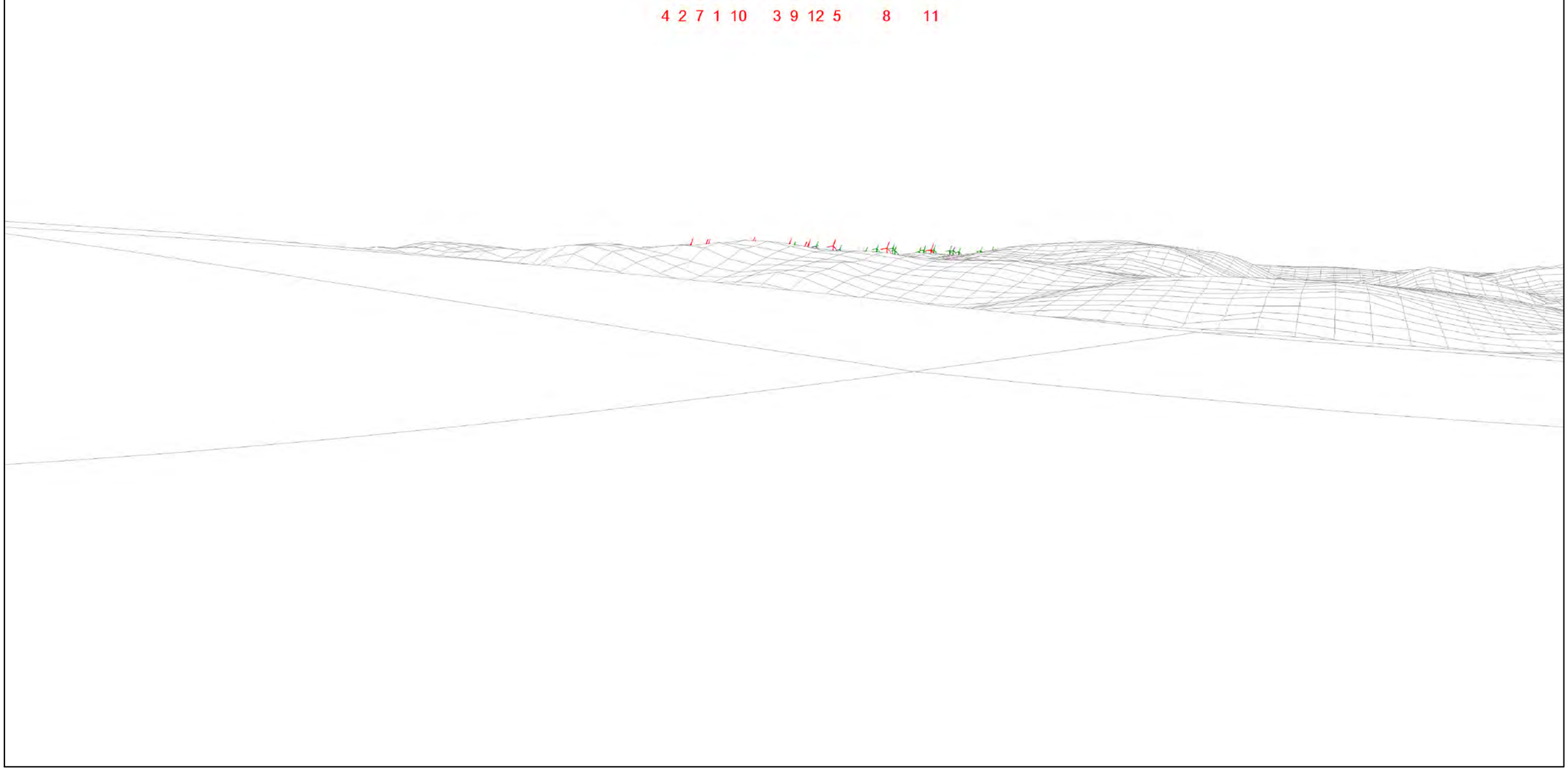
Ref: 1325/REP/006 Drawn: GC Reviewed: HK Approved: HK



VIEWPOINT CONTEXT

CHVP2 - Scheduled Monument Index No. 11434: Shenval settlement
Figure 5.4

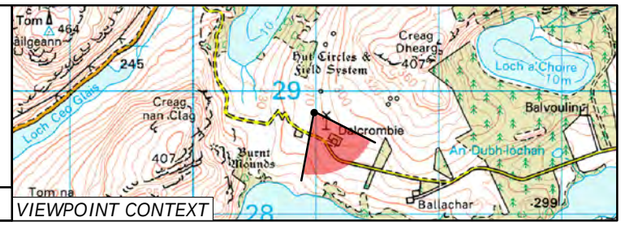
Aberarder Wind Farm Environmental Statement



Computer generated wireline showing proposed development in red and consented Dunmaglass turbines in green

Viewpoint Location:	*260991mE 828824mN*
View Direction:	*153.21 degrees*
Camera Elevation:	*271m AOD*
Distance to Nearest Turbine:	*8290m*
Horizontal Field of View:	*75 degrees*
Viewing Distance:	*302 mm*

Ref: 1325/REP/007 Drawn: GC Reviewed: HK Approved: HK

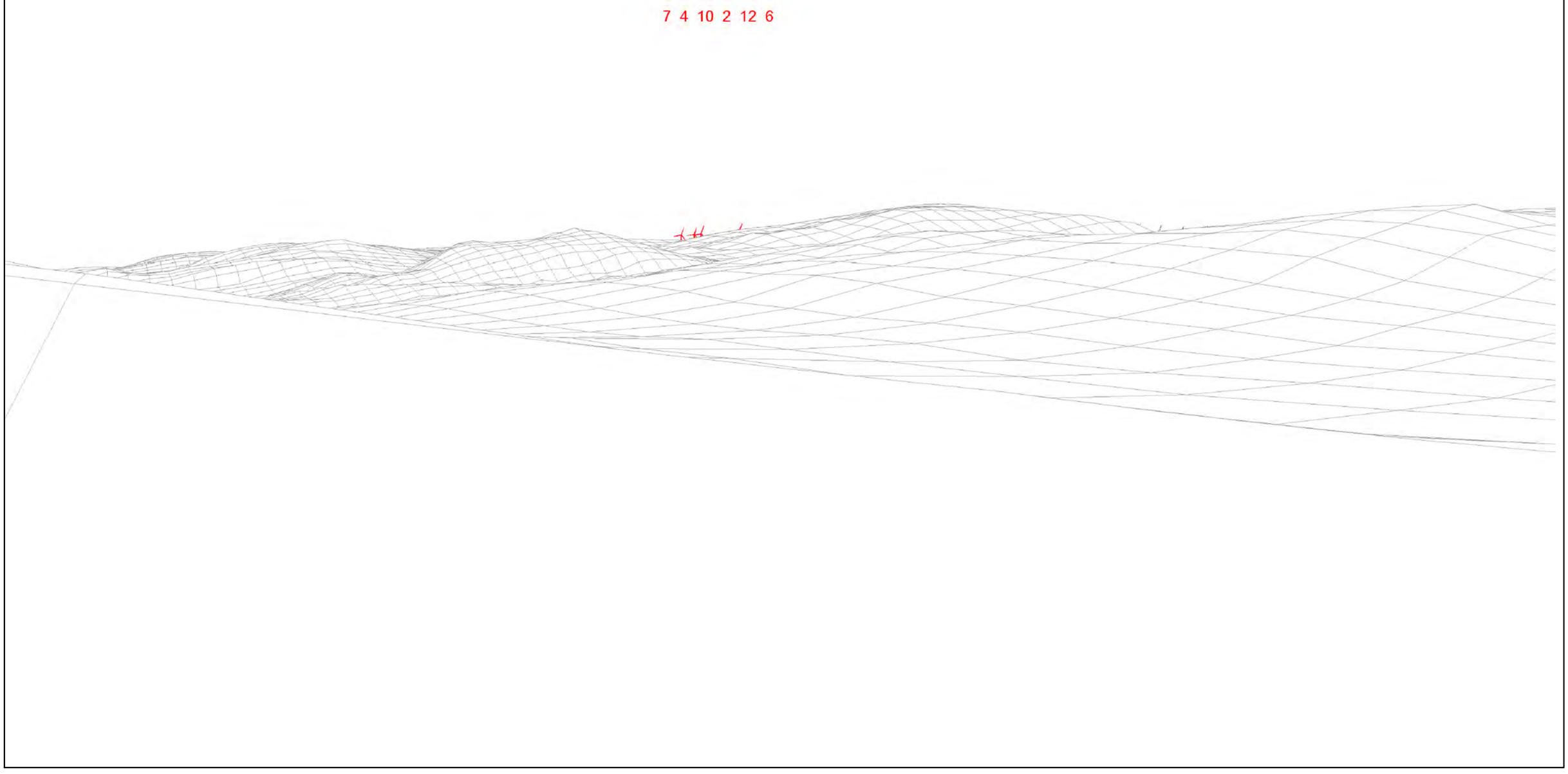


VIEWPOINT CONTEXT

CHVP3 - Scheduled Monument Index No. 11436: Dalcrombie hut circles, settlement and field system

Figure 5.5

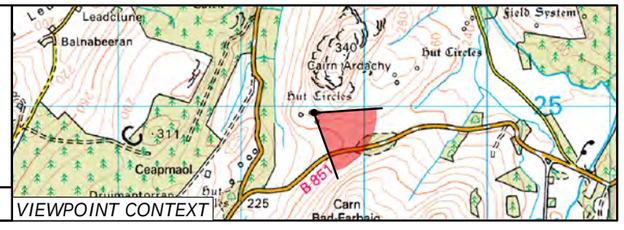
Aberarder Wind Farm Environmental Statement



Computer generated wireline showing proposed development in red and consented Dunmaglass turbines in green

Viewpoint Location:	*258598mE 824949mN*
View Direction:	*123.01 degrees*
Camera Elevation:	*263m AOD*
Distance to Nearest Turbine:	*6981m*
Horizontal Field of View:	*75 degrees*
Viewing Distance:	*302 mm*

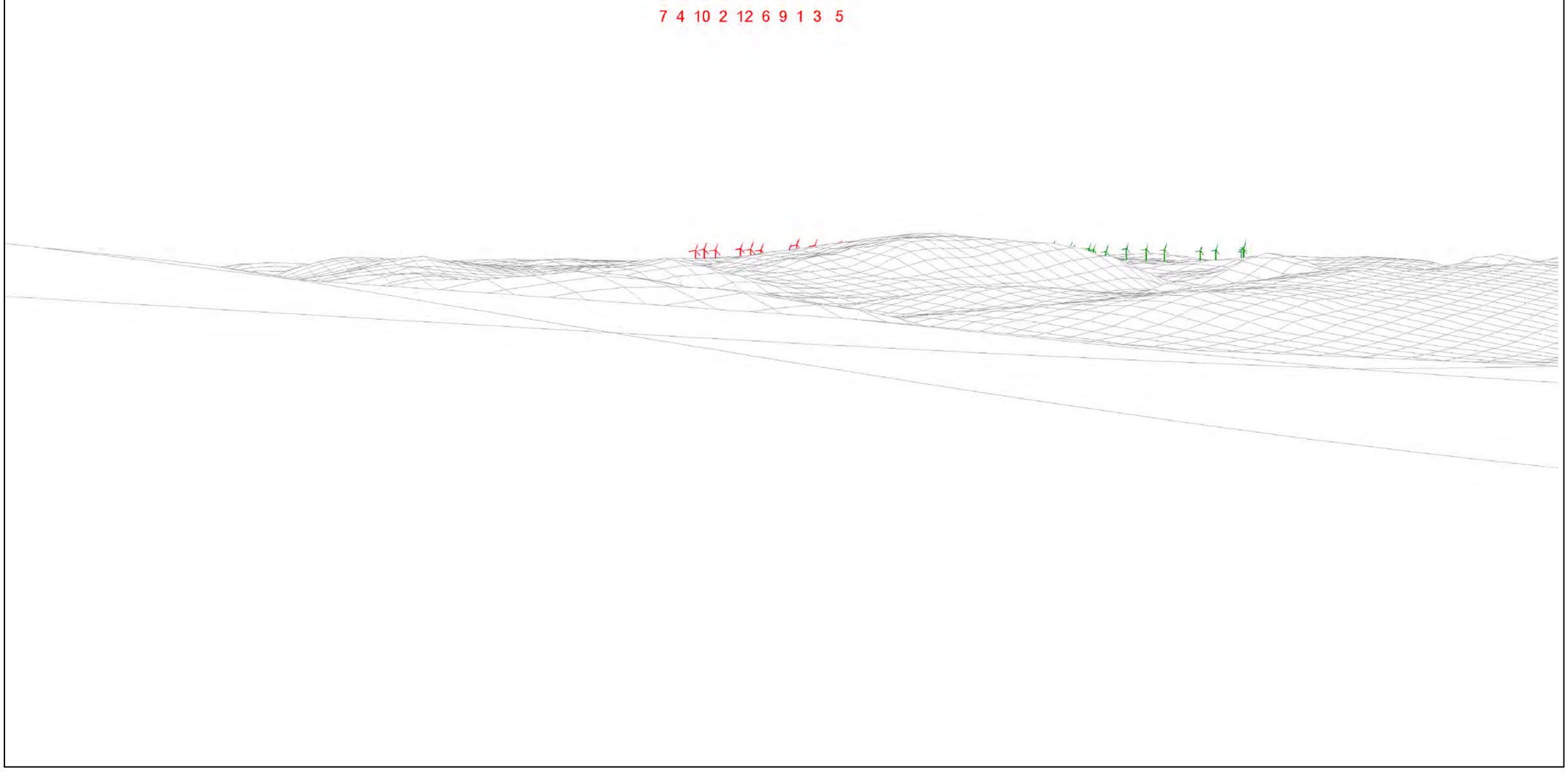
Ref: 1325/REP/008 Drawn: GC Reviewed: HK Approved: HK



VIEWPOINT CONTEXT

CHVP4 - Scheduled Monument Index No. 11500: Druimantorran hut circles and field system
Figure 5.6

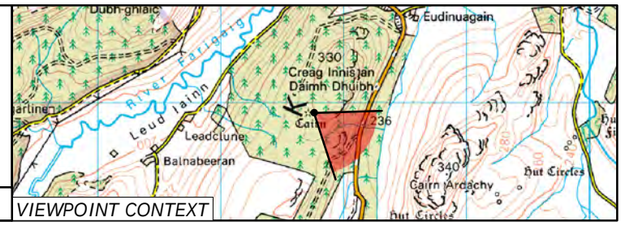
Aberarder Wind Farm
Environmental Statement



Computer generated wireline showing proposed development in red and consented Dunmaglass turbines in green

Viewpoint Location:	*257765mE 825918mN*
View Direction:	*125.30 degrees*
Camera Elevation:	*298m AOD*
Distance to Nearest Turbine:	*8204m*
Horizontal Field of View:	*75 degrees*
Viewing Distance:	*302 mm*

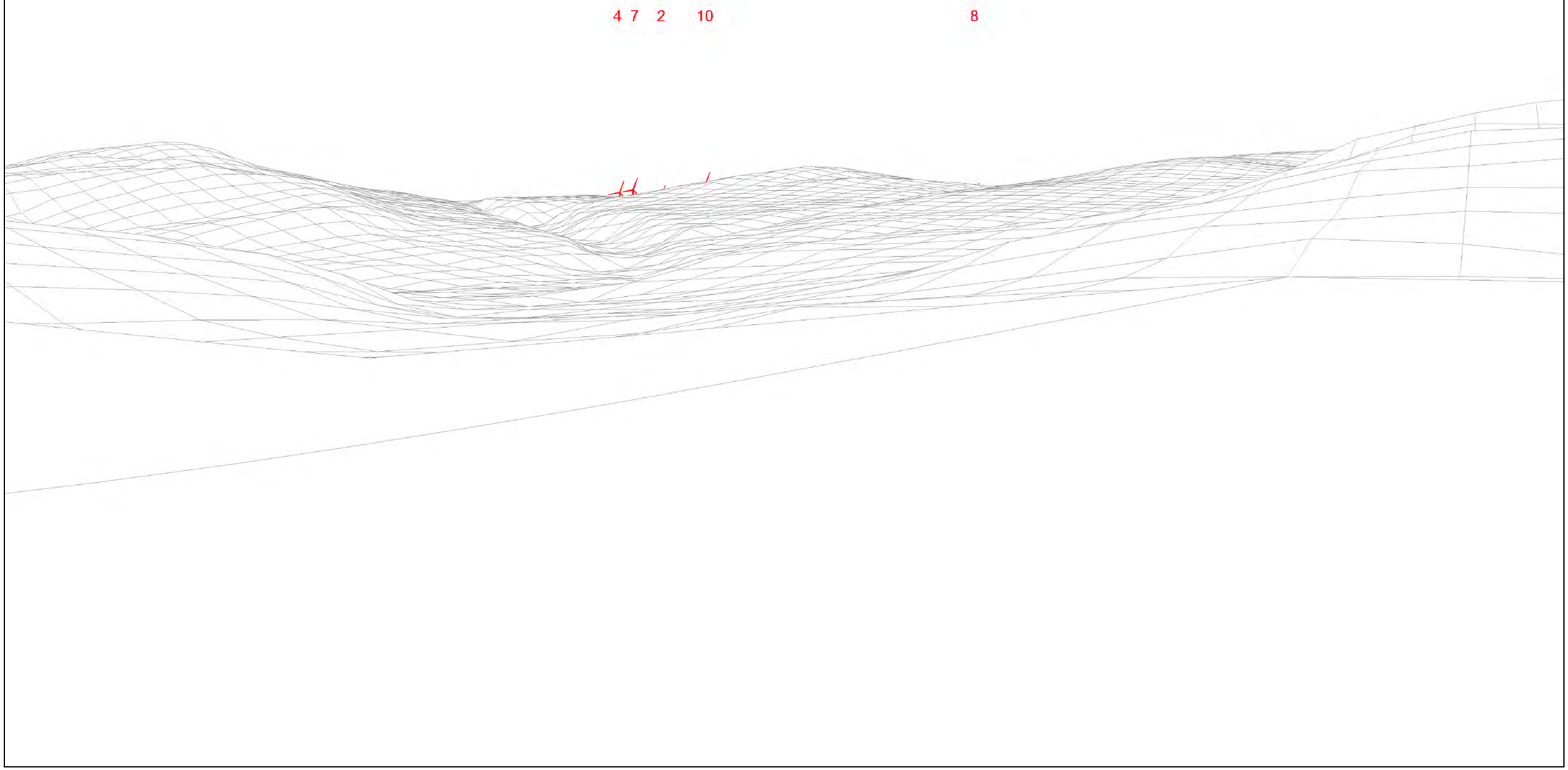
Ref: 1325/REP/009 Drawn: GC Reviewed: HK Approved: HK



VIEWPOINT CONTEXT

CHVP5 - Scheduled Monument Index
No. 11540: Leadclune cairn
Figure 5.7

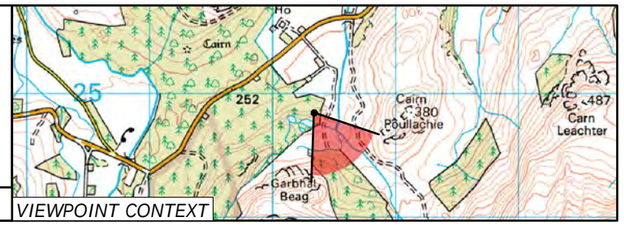
Aberarder Wind Farm
Environmental Statement



Computer generated wireline showing proposed development in red and consented Dunmaglass turbines in green

Viewpoint Location:	*262343mE 824842mN*
View Direction:	*146.35 degrees*
Camera Elevation:	*277m AOD*
Distance to Nearest Turbine:	*4146m*
Horizontal Field of View:	*75 degrees*
Viewing Distance:	*302 mm*

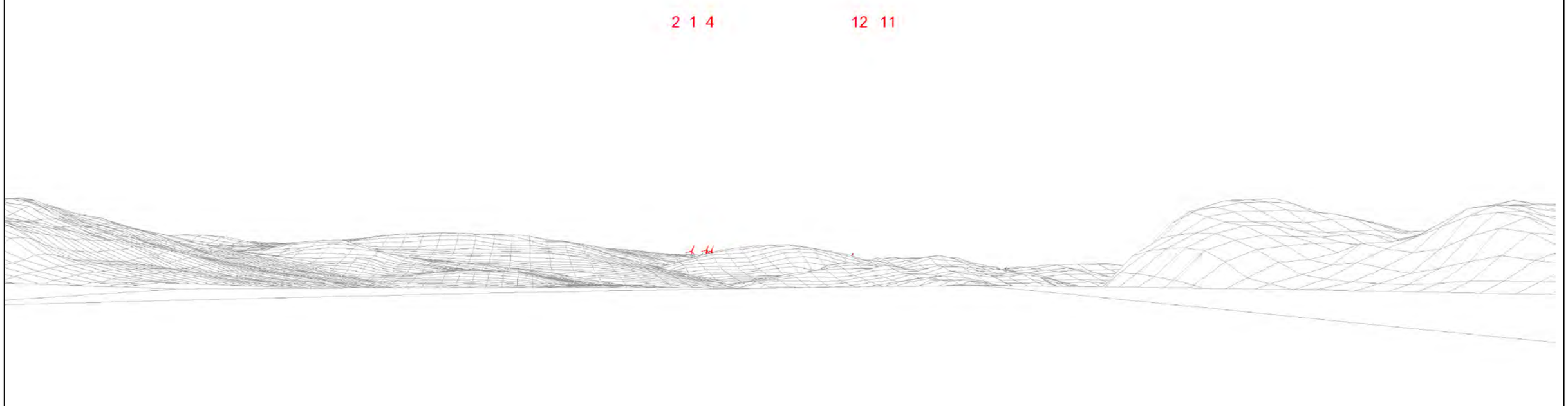
Ref: 1325/REP/010 Drawn: GC Reviewed: HK Approved: HK



VIEWPOINT CONTEXT

CHVP6 - Scheduled Monument Index No. 11541: Mains of Aberarder fort
Figure 5.8

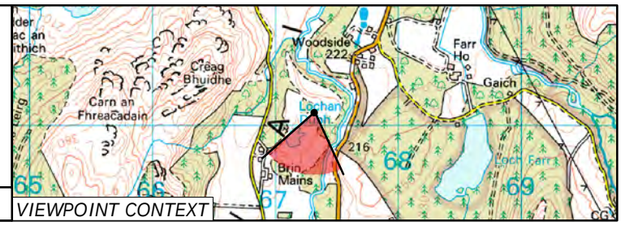
Aberarder Wind Farm Environmental Statement



Computer generated wireline showing proposed development in red and consented Dunmaglass turbines in green

Viewpoint Location:	*267320mE 831100mN*
View Direction:	*192.26 degrees*
Camera Elevation:	*226m AOD*
Distance to Nearest Turbine:	*9996m*
Horizontal Field of View:	*75 degrees*
Viewing Distance:	*302 mm*

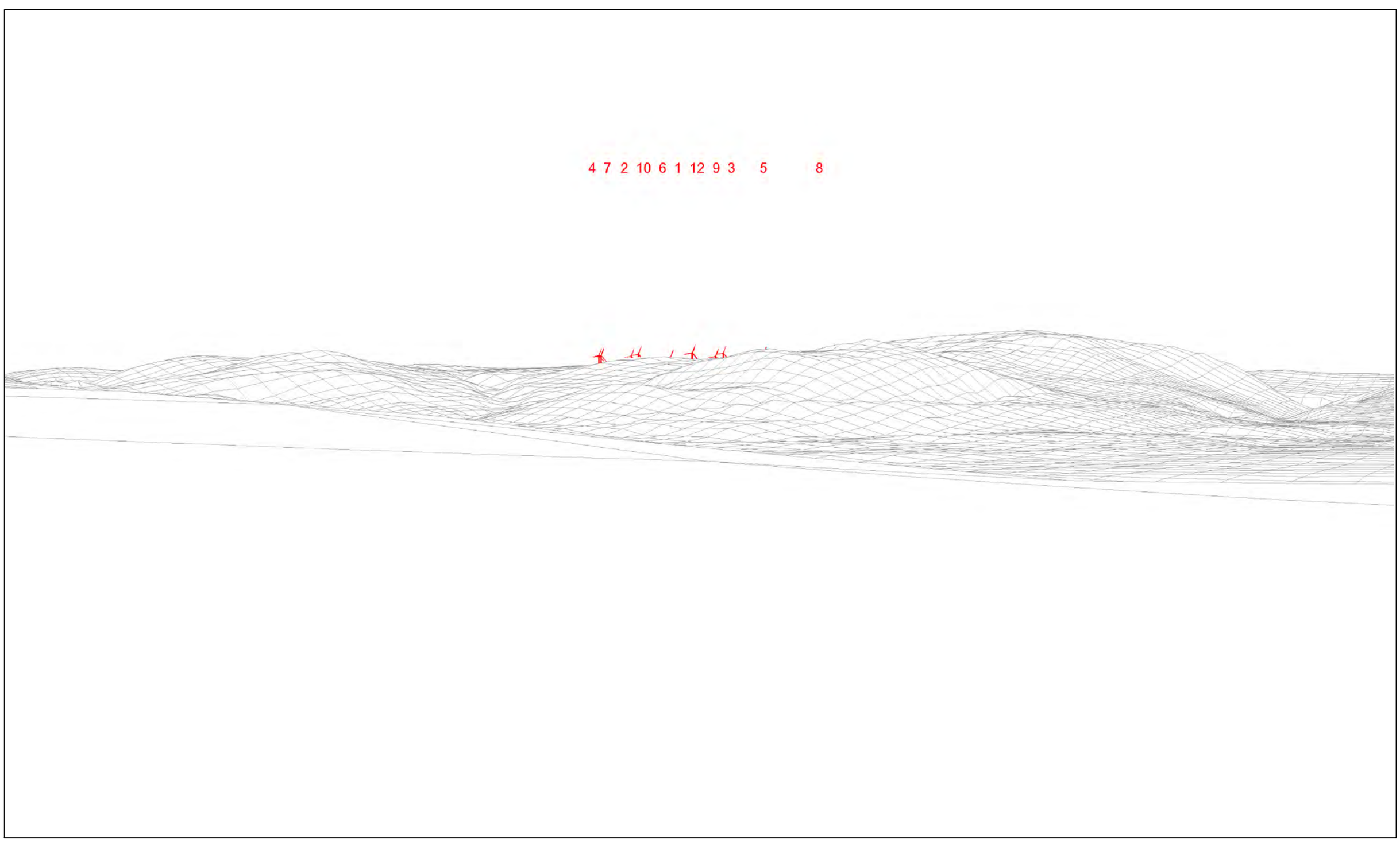
Ref: 1325/REP/011 Drawn: GC Reviewed: HK Approved: HK



VIEWPOINT CONTEXT

CHVP7 - Scheduled Monument Index No. 11544: Glen Nairn hut circle
Figure 5.9

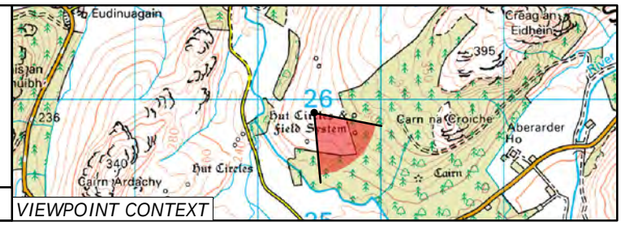
Aberarder Wind Farm Environmental Statement



Computer generated wireline showing proposed development in red and consented Dunmaglass turbines in green

Viewpoint Location:	*260463mE 825892mN*
View Direction:	*138.17 degrees*
Camera Elevation:	*274m AOD*
Distance to Nearest Turbine:	*6130m*
Horizontal Field of View:	*75 degrees*
Viewing Distance:	*302 mm*

Ref: 1325/REP/012 Drawn: GC Reviewed: HK Approved: HK

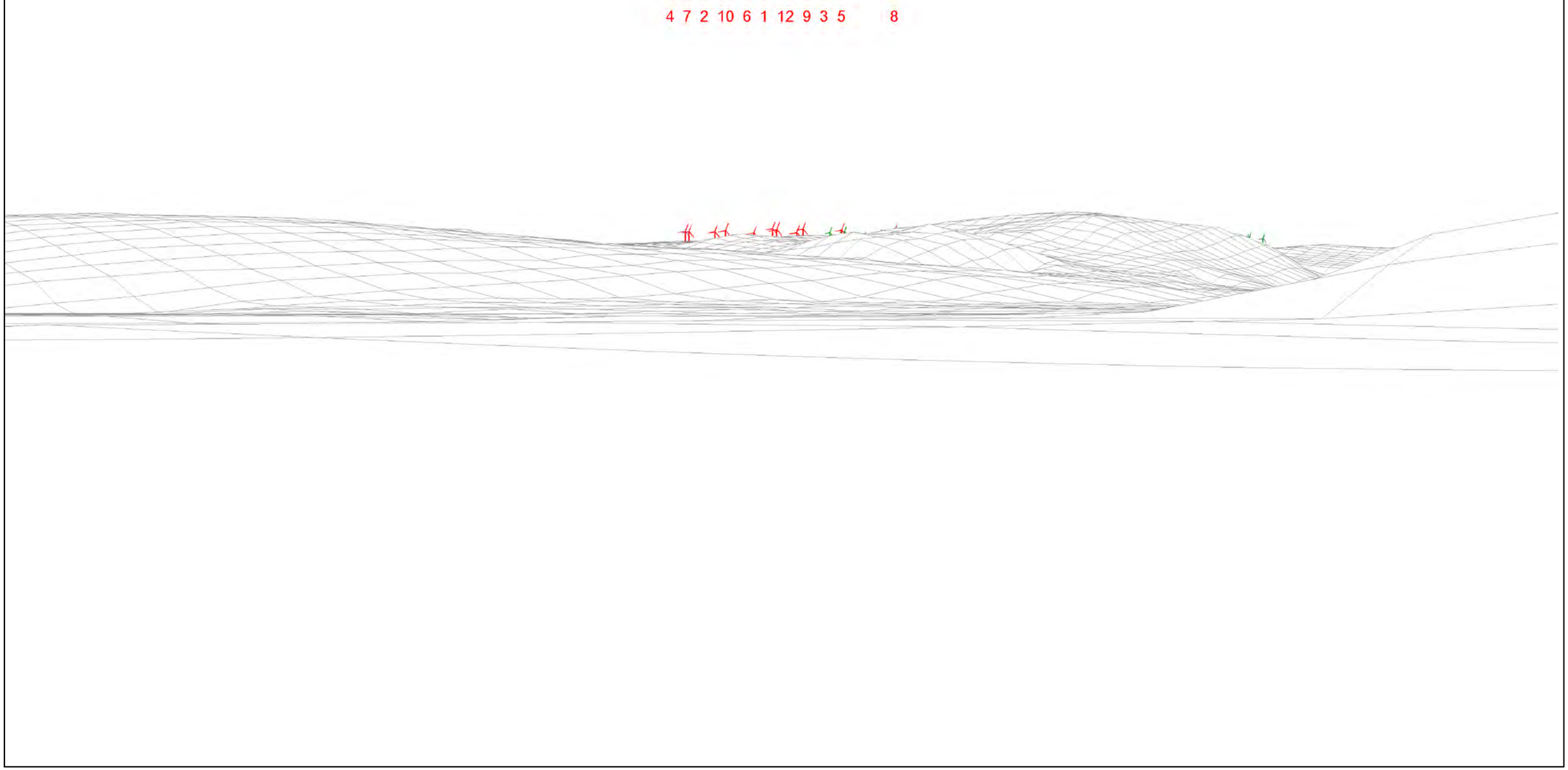


VIEWPOINT CONTEXT

CHVP8 - Scheduled Monument Index No. 11826: Ruthven hut circles, field systems and burnt mounds

Figure 5.10

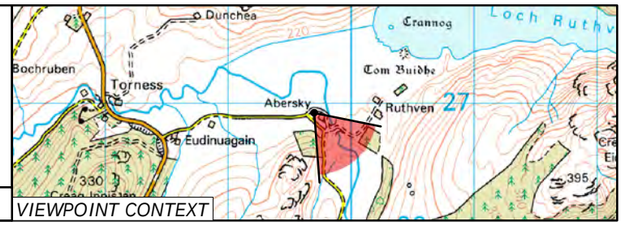
Aberarder Wind Farm Environmental Statement



Computer generated wireline showing proposed development in red and consented Dunmaglass turbines in green

Viewpoint Location:	*259704mE 826923mN*
View Direction:	*139.02 degrees*
Camera Elevation:	*219m AOD*
Distance to Nearest Turbine:	*7404m*
Horizontal Field of View:	*75 degrees*
Viewing Distance:	*302 mm*

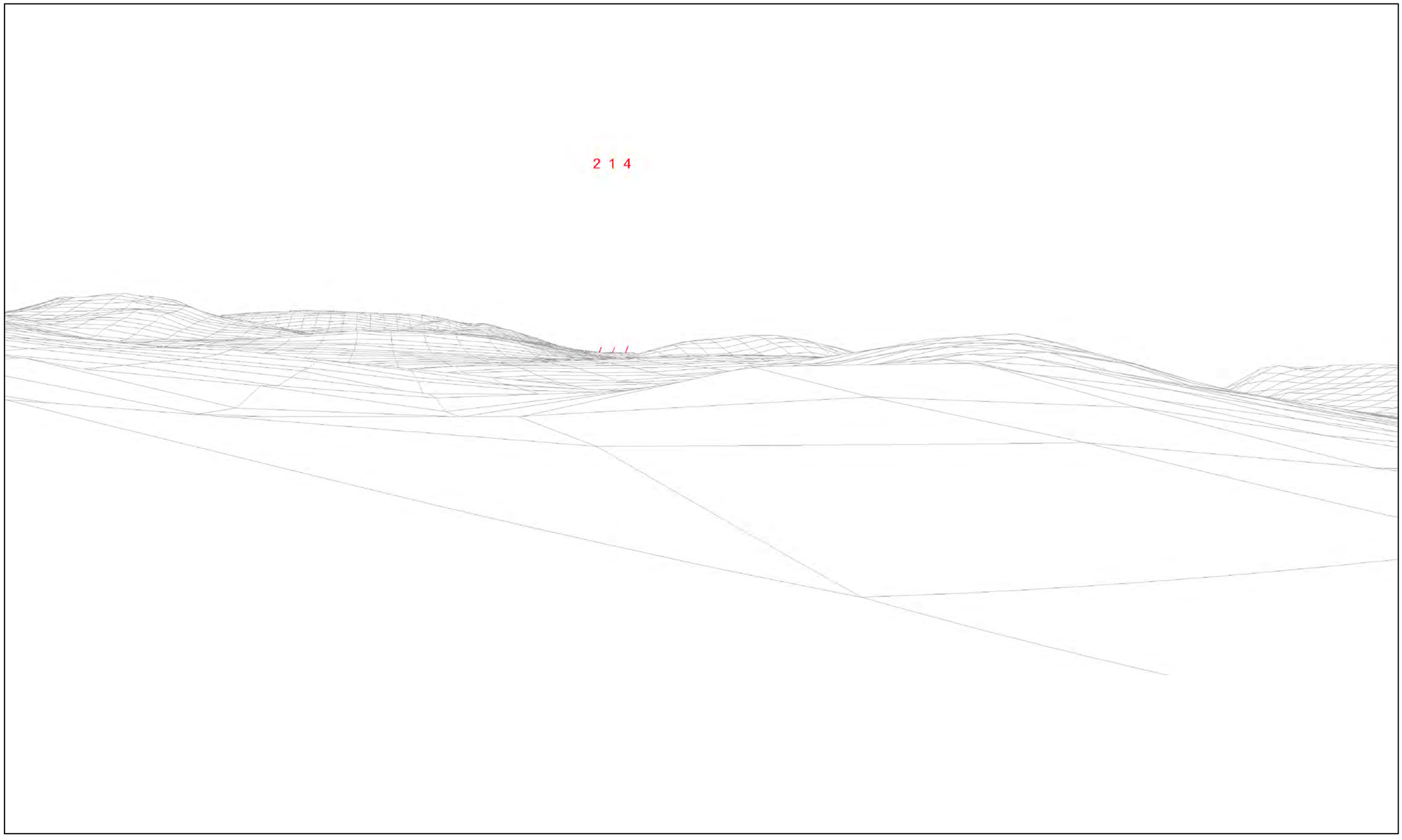
Ref: 1325/REP/013 Drawn: GC Reviewed: HK Approved: HK



VIEWPOINT CONTEXT

CHVP9 - Category B Listed
Abersky Farmhouse (HB No. 534)
Figure 5.11

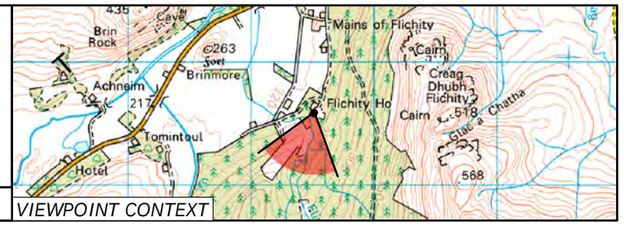
Aberarder Wind Farm
Environmental Statement



Computer generated wireline showing proposed development in red and consented Dunmaglass turbines in green

Viewpoint Location:	*267518mE 828587mN*
View Direction:	*197.34 degrees*
Camera Elevation:	*235m AOD*
Distance to Nearest Turbine:	*7596m*
Horizontal Field of View:	*75 degrees*
Viewing Distance:	*302 mm*

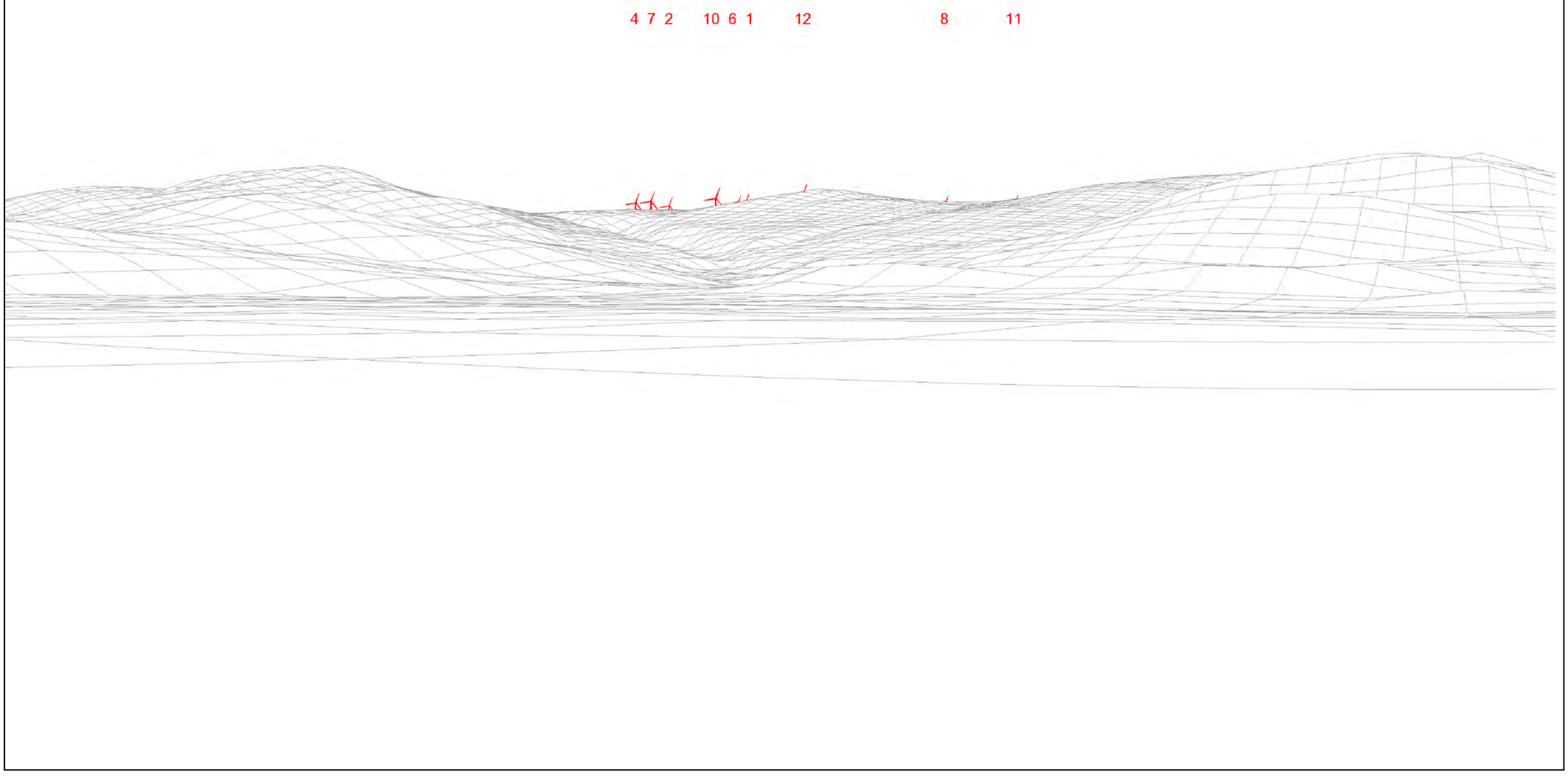
Ref: 1325/REP/014 Drawn: GC Reviewed: HK Approved: HK



VIEWPOINT CONTEXT

CHVP10 - Category B Listed
Flichity Farmhouse (HB No. 1684)
Figure 5.12

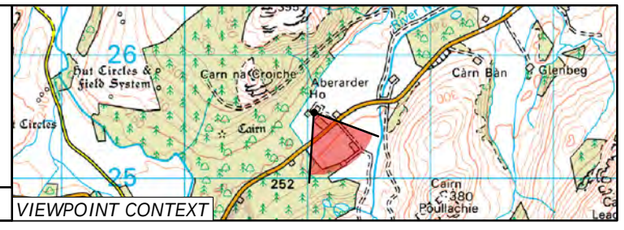
Aberarder Wind Farm
Environmental Statement



Computer generated wireline showing proposed development in red and consented Dunmaglass turbines in green

Viewpoint Location:	*262059mE 825531mN*
View Direction:	*147.82 degrees*
Camera Elevation:	*247m AOD*
Distance to Nearest Turbine:	*4881m*
Horizontal Field of View:	*75 degrees*
Viewing Distance:	*302 mm*

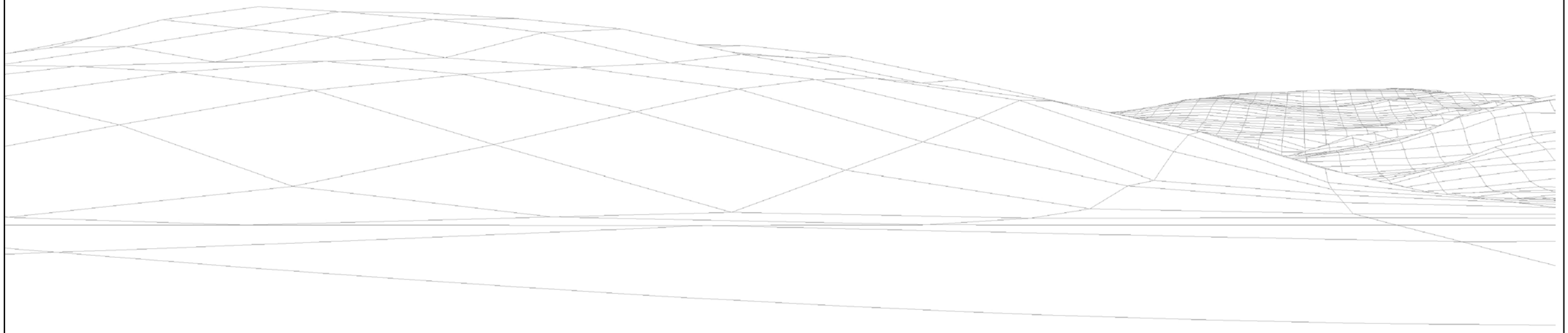
Ref: 1325/REP/015 Drawn: GC Reviewed: HK Approved: HK



VIEWPOINT CONTEXT

CHVP11 - Category B Listed
Aberarder House (HB No. 1697)
Figure 5.13

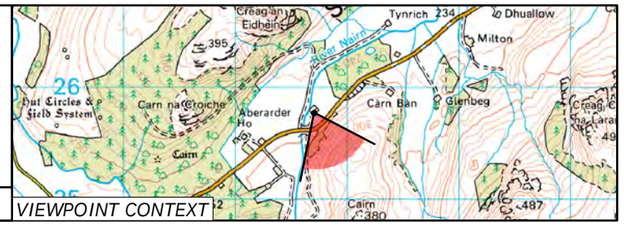
Aberarder Wind Farm
Environmental Statement



Computer generated wireline showing proposed development in red and consented Dunmaglass turbines in green

Viewpoint Location:	*262710mE 825773mN*
View Direction:	*154.86 degrees*
Camera Elevation:	*246m AOD*
Distance to Nearest Turbine:	*4801m*
Horizontal Field of View:	*75 degrees*
Viewing Distance:	*302 mm*

Ref: 1325/REP/016 Drawn: GC Reviewed: HK Approved: HK



VIEWPOINT CONTEXT

CHVP12 - Category B Listed
Bridgend Farmhouse and Byre
(HB No. 42470)
Figure 5.14

Aberarder Wind Farm
Environmental Statement