



Ben Aketil Wind Farm

Environmental Statement

Volume 2

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Produced By



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For



BEN AKETIL WIND FARM

ENVIRONMENTAL STATEMENT

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Glossary and Abbreviations

CHAPTER

1

INTRODUCTION

BEN AKETIL WIND FARM

CHAPTER ONE: INTRODUCTION

1.1 THE ENVIRONMENTAL STATEMENT

- 1.1.1 RDC Scotland is submitting a planning application for 14 wind turbines and associated equipment, tracks and temporary works. As part of this application this environmental statement has been prepared.
- 1.1.2 EC Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment defined a process for the provision of environmental information to local planning authorities to enable them to determine the likely environmental effects of certain developments. The 1985 Directive was implemented by the Environmental Impact Assessment (Scotland) Regulations 1999. To overcome omissions in the process defined in the 1985 Directive, the Council of Environment Ministers of the European Communities adopted an amending Directive (97/11/EC) in so far as it applies to development under the Town and Country Planning (Scotland) Act 1997. The Directive has been implemented in Scotland through the Town and Country Planning (Environmental Impact Assessment)(Scotland) Regulations 1999, which came into force on 1st August 1999.
- 1.1.3 Under the 1999 Regulations, the proposed development is classed as a "Schedule 2 Development". "Schedule 2 developments" are defined by type of development and applicable thresholds and criteria are applied which classify the development. Section 3 (I) for the Installations for the harnessing of wind power for energy production (Wind Farms) identified that where the development involves the installation of more than 2 turbines; or the height of any turbine or height of any structure exceeds 15 metres, an Environmental Impact Assessment is required. Discussions with the Highland Council indicated that the development should be subject a formal environmental assessment. An Environmental Statement has therefore been prepared to accompany the Planning Application.
- 1.1.4 The Purpose of the Environmental Statement (ES) is to:
- Explain the need for the proposals and describe the physical characteristics, scale and design of the wind farm.
 - Examine the existing environmental character of the application site and the area likely to be affected by the wind farm.
 - Predict the possible environmental impacts of the wind farm.
 - Describe measures which would be taken to avoid, offset or reduce adverse environmental impacts; and,
 - Provide the public, the planning authority and other consultees with information on the proposals, which would assist The Highland Council in making a decision on the wind farm planning application.
- 1.1.5 A formal opinion on the scope of the ES was sought, at an early stage, from The Highland Council, who following consultation with statutory and non-statutory consultees, subsequently defined the aspects of the development they required to be covered in this ES. Due regard has been given to these requirements.

- 1.1.6 As part of the consultation process scoping and/or consultation documents were sent to the following organisations:

Table 1.1: Consultations

The Highland Council	North of Scotland Water (now Scottish Water)
Dunvegan Community Council	Scottish Environmental Protection Agency
BBC	Scottish Natural Heritage
Radio Communications Agency	Ministry of Defence
Scottish Executive	Civil Aviation Authority
Thus	National Air traffic Services
Vodafone	Highlands of Scotland Tourist Board
BT	Trinity House Lighthouse Services
Cable & Wireless	Scottish and Southern Energy Telecom
Crown Castle	The Crofters Commission
Scot Way	Royal Fine Art Commission for Scotland
RSPB	

- 1.1.7 A number of consultants were engaged to carry out studies and provide advice where appropriate. A list of the main consultants is provided below.

- 1.1.8 The Environmental Assessment has been used as part of the iterative process of planning and developing the wind farm proposal. Changes were made as a result of advice provided by the consultants in order to minimise the impact of the project on the environment.

1.2 THE SIGNIFICANT EFFECTS APPROACH

- 1.2.1 The Environmental Impact Assessment (Scotland) Regulations 1999 enable local authorities to require the statutory environmental assessment of projects which would be likely to have significant effects on the environment by virtue of factors such as nature, size or location. Schedule 4 to the Regulations specifies the information to be contained in an Environmental Statement, including a description of likely significant effects on the environment of the development.

- 1.2.2 The Environmental Statement is intended to provide the Local Planning Authority with the information it requires in order to undertake an Environmental Impact Assessment of the proposed development.

- 1.2.3 An enduring difficulty with the process of environmental assessment is the achievement of a consistent definition of a degree of likely effects of a proposal on particular interests, particularly in defining whether or not such effects are significant.

- 1.2.4 In order to 'benchmark' whether or not a particular likely effect is significant this environmental statement adopts a common vocabulary and definition matrix, following the guidance within the Scottish Natural Heritage document "A Handbook on Environmental Impact Assessment"

- 1.2.5 It is felt that this approach, (particularly because of discussions that have taken place between the project manager and the consultants, and between consultants) achieves a reasonable degree of consistency, although no

absolute precision will ever be possible because of the ultimate subjectivity of certain judgements. No consultants will always have precisely the same concept of significance in mind.

1.2.6 Factors affecting Significance of Impacts

- The Sensitivity of the resource to change
- The Impact Magnitude, including timing, scale, size and duration;
- The Likelihood of the impact occurring
- The “do nothing comparison”
- Expressing the significance of the impacts.

1.2.7 A matrix can be used to consider the significance of impacts. The sensitivity of the resource can be analysed from the baseline information. The significance matrix can combine the information about the sensitivity of the resource, with the magnitude of impacts. A combination of the two sets of analysis enables a simple matrix of significance to be compiled as indicated below.

Table 1.2: Matrix showing Impact Significance related to Sensitivity and Magnitude of Change

Significance of Impact	Sensitivity of Receptor	Magnitude of Change
Substantial/High	High	High
	High	Medium
	Medium	High
Moderate/Medium	High	Low
	Medium	Medium
	Low	High
Slight /Low	Medium	Low
	Low	Medium
	Low	Low
No Change	High Medium or Low	No Change

1.2.8 Predicting impact significance is partly objective and partly subjective. It relies on the professional judgement those who place varying weight on the many factors involved. The Environmental Statement therefore sets out the basis of these judgements so that the weight attached to the different factors and the rationale of the assessment can be understood.

1.3 STRUCTURE OF THE DOCUMENT

1.3.1 The Planning Application and Environmental Statement is divided into four volumes.

The Planning Application document forms Volume 1 of the submitted details.

Volume 2 contains the Environmental Impact Assessment, including the reports on the surveys and assessments, which have been undertaken by internal specialist staff and external consultants. The structure of Volume 2 is as follows: -

- Chapter 1, Introduction.
- Chapter 2, Site Selection.
- Chapter 3, The Need For and Benefits Of The Proposed Development
- Chapter 4, Project Description.
- Chapter 5, Landscape and Visual Assessment.
- Chapter 6, Nature Conservation.
- Chapter 7, Noise.
- Chapter 8, Archaeological Assessment.
- Chapter 9, Infrastructure, Safety and Tourism.
- Chapter 10, Planning Policy.
- Chapter 11, Conclusions.

Volume 3 is an A3 Volume containing the maps and figures that support the assessments presented in Volume 2.

Volume 4 contains a Non-Technical Summary.

- 1.3.2 Copies of the full Planning Application and Environmental Statement can be purchased from RDC Scotland for £100.00. The Non-Technical Summary is available free of charge, separately on request. Contact: Nick Yencken (Project Manager) RDC Scotland, Crown Business Centre, 20-22 High Street, Hawick, Scotland, TD9 9EH.

1.4 LIST OF CONSULTANTS

- 1.4.1 In the preparation of this Environmental Statement the following independent consultants have been commissioned to provide specialist advice and to undertake the individual assessment of the proposed development, which are reported on in this ES.

Acoustics:

Hayes McKenzie Partnership
 Lodge Park
 Tre'r Ddol
 Machynlleth
 Powys
 SY20 8PL

Contact: Malcolm Hayes

Archaeology:

Archaeological and Ancient Landscape Survey
Tgh an Dun
Dunan
Broadford
Isle of Skye
IV49 9AJ

Contact: Martiñ Wildgoose

Nature Conservation

Natural Research (Projects)Ltd
Carnduncan Farmhouse
Gruinart
Isle of Islay
Scotland
PA44 7PS

Contact: Mike Madders

Landscape and Visual

E4 Environment Ltd
17/18 Mardol
Shrewsbury
SY1 1PU

Contact: Kay Hawkins

REFERENCES

BWEA, 1994, Best Practice Guidelines for Wind Energy Development, BWEA, ISBN 1870064216.

EWEA, European Best Practice Guidelines for Wind Energy Development, <http://www.ewea.org/BPG.pdf>

The Environmental Impact Assessment (Scotland), Regulations 1999
Circular15/1999, Scottish Executive.

A Handbook on Environmental Impact Assessment "Guidance for Competent Authorities, Consultees and others involved in the Environmental Impact Assessment "Process in Scotland", January 2002 – Scottish Natural Heritage.

CHAPTER

8

ARCHAEOLOGY ASSESSMENT

BEN AKETIL WIND FARM

8.1 INTRODUCTION

8.1.1 On the 20th March 2002 Archaeological and Ancient Landscape Survey received instructions and site plans regarding a proposed wind farm at Ben Aketil, near Feorlig on the Isle of Skye. The area in question covers some 11 square kilometres of the hill ground lying to the north of the township of Feorlig in north-west Skye. The Instructions required that a desk based assessment and walkover survey to be carried out over the area of the proposed development. The Archaeological Report will be incorporated within the Environmental Assessment.

8.1.2 Aims

The aim of the desk-based assessment was to establish the nature and extent of both the known archaeological record and the written archive relating to the proposed development.

The walk-over survey was designed to establish the nature and extent of the unrecorded archaeological record surviving within the development area. The walkover survey was carried out, by a team of three, over an eight day period between the 12th and 20th of April, during a spell of fine sunny weather.

8.2 METHODOLOGY

8.2.1 Desk Based Assessment

The Desk Based Assessment was carried out using the Internet and visits to established archives. A list of sources is included below:-

- The Dualchas Archive, (SMR, Map Archive and AP Archive) Portree, Isle of Skye.
- Archaeological and Ancient Landscapes Archive, Dunan, Broadford, Isle of Skye.
- The Highland Council Sites and Monuments Record, Inverness.
- National Monuments Record for Scotland–Accessed by Internet. (<http://www.rcahms.gov.uk>)

8.2.2 Walkover Survey

The area outlined in Figure 13 Volume 3, being the area of archaeological survey, was systematically walked and all visible archaeological sites, and landscape boundaries, recorded. Each recovered site was then assessed as to its condition and, if necessary, appropriate impact mitigation suggested (Table 8.4), - in order that the recovered archaeology (including landscape boundaries) might be protected during site works.

A sliding scale has been used to indicate condition. These categories are listed below: -

Well preserved – All elements visible and in close to original condition.

Ruinous – All elements visible, but some disturbance and collapse.
Degraded – Type of site still discernible, but remains very disturbed.
Very degraded – Not possible to say with any certainty what site is.

8.2.3 During the walk-over survey a written record of each archaeological site was kept on prepared recording sheets. The more visible sites were photographed using slide film and a national grid reference established using a hand held GPS (accurate to 10 metres).

8.2.4 All archaeological sites within the proposed development were flagged, on the ground, with canes and red and white tape. Where a site had multiple elements all elements were flagged.

8.3 RESULTS (see Fig.13 Vol.3 for distribution of recovered sites)

8.3.1 The Desk Based Assessment

A total of 10 previously recorded archaeological sites were recovered by the desk based survey. Of these 10 sites 3 are potentially impacted on by the site works, these are marked with an asterisk in the Tables below, and are highlighted in bold in the Gazetteer (See Appendix 8.1). The 10 recovered sites were gathered from the following archives:-

8.3.1.1 The Dualchas Sites and Monuments Record

A search of the Dualchas SMR, held in Portree, revealed 5 previously recorded sites within or close to the area of proposed development. Of these 5 sites 4 fell within the boundaries of the development, these are listed in Table 8.1:-

Table 8.1: Archaeological sites recovered from the Dualchas SMR.

(* Located close to site works)

SMR No	Site Type	National Grid Ref.	No. in Gazetteer
NG 24 NE 5	Broch	NG 2987 4537	Site 1
NG 34 NW 2	Shielings	NG 3040 4760	Site 2 *
NG 34 NW 31	Farmstead	NG 3001 4510	Site 3 *
NG 34 NW 32	Farmstead	NG 3055 4706	Site 4 *

8.3.1.2 The Dualchas Map Archive

All relevant maps were consulted and the only maps to provide any information were the OS 6-inch (1903, 2nd ed. sheet XXII) and the OS 1:10000 (1992), both of which confirmed the existence of the above mentioned sites

8.3.1.3 The Dualchas Aerial Photographic Archive

A search of the relevant aerial photographs produced no new sites but confirmed the existence of both the Broch (NG 24NE 5) the Shielings recorded as NG 34NW 2 and the Farmsteads recorded as NG 34NW 31 and 32. (See Table 8.1)

8.3.1.4 The Archive of Archaeological and Ancient Landscape Survey

Contained within the AALS archive is a copy of a report Entitled ' Dunvegan – Environmental Assessment: An archaeological survey, February 1997'. This report lists a further 6 archaeological sites located within the area of the proposed development. These are listed below: -

Table 8.2: Archaeological sites recovered from the AALS Archive

Site Type	National Grid Ref.	No. in Gazetteer (Appendix 10.1)
Shieling	NG 2996 4863	Site 15
Mound	NG 3037 4830	Site 17
Shieling	NG 3047 4831	Site 18
Hut Circle & Shieling	NG 3048 4822	Site 19
Shieling	NG 3085 4682	Site 7
Shieling	NG 3130 4600	Site 8

8.3.1.5 The Highland Council Sites and Monuments Record, Inverness

Carried out by Steven Birch PIFA.

A search of the Highland SMR produced a total of 6 recorded sites relating to the proposed area of development. No additional sites were recovered. All six sites are contained within Tables 8.1 and 8.2 and need not be listed again.

8.3.1.6 The National Monuments Record for Scotland

A search of the National Monuments Record for Scotland was carried out over the Internet using CANMORE to access the Royal Commission on the Ancient and Historical Monuments of Scotland's NMR. (<http://www.rcahms.gov.uk>)

The National Monuments Record for Scotland contained 6 previously recorded sites which related to the area under survey. These exactly mirrored the six sites recovered from the Highland SMR, adding no new sites to those recorded above.

8.3.1.7 The National Map Archive

A search of this archive was not undertaken as all the relevant maps are available within the Dualchas Map Archive.

8.3.2 Results Of The Walkover Survey

8.3.2.1 Archaeological Sites

A total of 20 new archaeological sites were recorded during the walk-over survey – these are listed below. Sites which may be affected by the proposed development have been marked with an asterisk in Table 8.3 and highlighted in bold in the Gazetteer. An expanded description can be found in the Gazetteer (Appendix 8.1)

Table 8.3: Archaeological sites found during the walkover survey.

(* Located close to site works)

Site Type	National Grid Ref.	No. in Gazetteer (Appendix10.1)
Ruined house	NG 3049 4711	Site 5 *
Turf foundations	NG 3065 4709	Site 6
Shieling	NG 3161 4624	Site 9
Shielings	NG 3187 4682	Site 10
Turf foundations	NG 3126 4684	Site 11
Stone pen	NG 3073 4715	Site 12
Shieling and pen	NG 3055 4849	Site 13 *
Shieling	NG 2990 4910	Site 14
Shieling	NG 3002 4844	Site 16
Shielings	NG 3034 4726	Site 20 *
Shieling	NG 3056 4700	Site 21 *
Hut circle	NG 3064 4702	Site 22
Hut circle	NG 3059 4678	Site 23
Cist Burial (possible)	NG 3051 4666	Site 24
Shielings	NG 3044 4652	Site 25 *
Shielings and enclosure	NG 3039 4652	Site 26 *
Ruined farmstead	NG 3050 4680	Site 27
Ruined farmstead	NG 3006 4560	Site 28 *
Ruined byre	NG 2991 4454	Site 29 *
Ruined byre and bothy	NG 2991 4477	Site 30 *

8.3.2.2 Landscape boundaries

Approximately 8 km of turf land divisions (boundaries) were recorded during the walk-over survey (see Fig.13 Vol.3). The majority of the recorded boundaries lie to the west of the Caroy River and will be directly affected by the new Upper Feorlig access road.

8.4 PROPOSALS FOR MITIGATION

8.4.1 Archaeological Sites

A combined total of thirty archaeological sites were recovered during the site assessment, of these, twelve may come into direct conflict with the site works. Of the twelve sites which may come into direct conflict with site works, nine can be easily diverted around, (Sites 2, 3, 4, 5, 13, 20 21 25 & 26), and two can, with some care, be bypassed (Sites 29 and 30). The position of the remaining site (No. 28) leaves little room for manoeuvre.

8.4.2 Site 28

Site 28 is neither old nor especially rare, it is however a well preserved example of its type – a nucleated farmstead/settlement of approximately 17th/19th century date. The site consists of a stone built Long-house, a small byre or store and several associated enclosures. The enclosures would serve as kaleyards (gardens), rick yard (hay and/or oats) and as pens for domesticated animals.

8.4.3 Landscape Boundaries

The Upper Feorlig access route will have to cross major landscape boundaries in only five places (see Fig.13 Vol.3). At four of these crossings (A–D) the boundary will be crossed at right-angles to its general alignment. At crossing 'E' the boundary has entirely disappeared.

No consideration need be given to the crossing at this point.

8.4.4 Proposals for Mitigation – Archaeological Sites

The following proposals for mitigation should be discussed with the Senior Archaeologist, Highland Council Archaeology Unit, Inverness.

Table 8.4 : Archaeological Sites – Impact and Mitigation

Site No.	Impact.	Proposed Mitigation
2	Site works for new access road	Ensure that the line of the new access road passes at least 30 metres to the east of the eastern limit of the site.
3	Upgrading of road to allow site access	See Sites 29 and 30 (below) for mitigation.
4	Site works for new access road	Ensure that the line of the new access road passes at least 30 metres to the west of the western limit of Site 4.
5	Site works for new access road	Ensure that the line of the new access road passes at least 30 metres to the west of Site 5
13	Site works for new access road	Ensure that the line of the new access road passes at least 30 metres to the west or east of Site 13
20	Site works for new access road	Ensure that the line of the new access road passes at least 30 metres to the east of the eastern limit of Site 20
21	Site works for new access road	Ensure that the line of the new access road passes at least 30 metres to the west of Site 21
25	Upgrading of road to allow site access	Ensure that the site works do not encroach nearer than 20 metres to the western limit of Site 25
26	Upgrading of road to allow site access	Ensure that site works do not encroach nearer than 20 metres to the eastern limit of Site 26
28	Upgrading of road to allow site access	Record, both photographically and by measured plan, all visible aspects of the site prior to the start of site works, as road straightening will entail partial destruction of the enclosures lying between the current hill road and the Long-house. Ensure that the site works do not damage the Long-house. A watching brief should be maintained, by a qualified archaeologist, during site works in order that any buried archaeology might be recognised and recorded before it is destroyed. (refer to 8.4.4.1 below)
29	Upgrading of road to allow site access	All road widening to be confined to the eastern, downhill, side of the road.
30	Upgrading of road to allow site access	All road widening to be confined to the eastern, downhill, side of the road.

8.4.4.1 Watching Brief, Site 28 – Methodology

- A watching brief should be conducted, by an archaeologist, on all site ground-works within 20 metres of the western limit of Site 28 so that any finds or features of importance can be recorded to professional standards.
- The archaeologist shall be given every aid by contractors to enable the archaeological work to be carried out.
- Where mechanical topsoil stripping is to be carried out a straight edged bucket should be used on a back acting machine.
- Should archaeological remains be encountered all site works in that area should stop until the archaeologist has completed recording.
- The archaeologist will liaise with the Assistant Curator (Archaeology) at Inverness Museum prior to the start of the watching brief, regarding possible emergency conservation of finds and future storage arrangements.
- All finds will be catalogued and reported under the current Treasure Trove Laws.

8.4.5 Proposals for mitigation - Landscape Boundaries

8.4.5.1 If an access road has to cross the line of a boundary it should do so at a right-angles or as close to a right-angle as is practicable to minimise damage to the feature.

8.4.5.2 Access roads should not run along the line of a boundary.

8.4.5.3 If an access road has to run close to or parallel to a boundary a 5 metre buffer zone should be left between the boundary and the access road.

8.4.5.4 The make-up of a boundary should not be used as a convenient sub-base for access roads.

8.5 ALTERNATIVE ACCESS ROUTE

8.5.1 On the 11th of June 2002 instructions and detailed maps were received regarding a second access route – from Upper Glen to the site of the proposed control building (see Fig.2 Vol.3). The proposed alternative access runs through the Coishletter Forest, an area surveyed for archaeology in 1989 prior to the start of planting. No additional survey would therefore be required.

8.5.2 The proposed route, using existing rides wherever possible, was walked on the 18th June and no archaeological sites were found to lie on or close to the proposed line of access.

8.6 CONCLUSIONS

8.6.1 The Archaeological Landscape

The Desk Based Assessments and Walkover Survey have revealed a palimpsest of archaeological sites typical of almost every seaward-facing glen on the Isle of Skye. A landscape that has been intensively farmed from at least the Iron Age circa 400 BC – 400 AD when the Hut Circle (Site 19) and the Broch (Site 1) were probably constructed and perhaps much of the landscape enclosed. This intensive occupation continued in a somewhat reduced form, through the Medieval and Post-Medieval periods as testified by the numerous Farmsteads and Shielings which litter the lower reaches of the glen. It is only with the mass clearances of the late 18th and early 19th centuries and the subsequent introduction of the ubiquitous sheep that we see the landscape reverting to open pasture once again.

8.6.2 Impact of the Development upon the Archaeological Landscape.

With a little consideration and careful positioning of access roads the development of the Ben Aketil Wind Farm will have little effect upon the recorded archaeological landscape. Only 1 archaeological site (28) will be directly affected by the site works if the Upper Feorlig access option is progressed. This will result in the partial loss of the enclosures lying between the Long-house and the current access road being mitigated by detailed site recording prior to the start of access upgrading. The effect of site works on the enclosure systems will also be minimal with the Upper Feorlig access roads crossing fossilised boundaries in only four places. The loss of 4 short lengths of turf boundary will in no way affect the integrity of the fossilised enclosure pattern.

8.6.3 Proposed new access.

From an archaeological point of view the proposed new access route (See 8.5 above) is preferred over the original, south-western access route – no archaeological sites will be affected and there will be no disturbance of fossilised boundary systems.

References and List of Sources

Archaeological and Ancient Landscape Survey Archive, c/o Martin Wildgoose, Tigh an Dun, Dunan, Broadford, Isle of Skye.

Dualchas Archive, The Skye and Lochalsh Museums Service, Portree, Isle of Skye.

Highland Archive, Highland Archaeology Unit, Glenurquhart Road, Inverness.

National Monuments Record for Scotland, John Sinclair House, Bernard Terrace, Edinburgh.

Wildgoose, M., 1997 Dunvegan Environmental Assessment - Archaeological Survey.

Wildgoose, M., 1989 Coishletter Moor – Archaeological Survey.

Martin Wildgoose

APPENDIX 8.1

Gazetteer of Archaeological Sites

Sites in bold may be affected by site works)

Site No. 1.	(NG 24NE 5)	Degraded
GPS Grid ref.	NG 2987 4537	
Description	Broch	Occupies the summit of a slight rocky knoll on the West Side of Glen Heysdal, some 230 metres west of the Caroy River. And about 1.5 km north of the rivers outfall into the sea. This broch has been reduced to the foundation course and the entire circuit is nowhere visible. Sufficient survives however to indicate its dimensions. The internal diameter is 10.5 metres and the wall is 3.6 metres thick. The entrance lies to the west-south-west, but only one side of the passage survives. The remains of a small cell are visible within the thickness of the wall on the north-west side.
Site No. 2	(NG 34NW 2)	
GPS Grid ref.	NG 3048 4767	Ruinous
Description	Shielings	A dispersed group of 21 degraded shielings. All are of turf construction and show either as green mounds with a small central depression, or low circular banks up to 5.0 metres in diameter. They are mainly of the single-cell type with one or two double-cell examples present.
Site No. 3	(NG 34NW 31)	Not Classified
GPS Grid ref	NG 3001 4510	
Description	Crofting township	The current linear settlement of Upper Feorlig. The 1992 Edition of the OS 1:10000 map shows roofed and four unroofed buildings.
Site No. 4	(NG 34NW 32)	Cnocantoul Ruinous
GPS Grid ref.	NG 3057 4705	
Description	Farmstead	A farmstead comprising 2 unroofed buildings lying within an embanked enclosure. The central building has rounded corners and measures 11 metres by 6 metres over walls 1 metre thick. The second building overlies an earlier bank at the head of an inturned entrance on the East Side of the enclosure. This building measures 4 metres by 6 metres over walls 1.2

metres thick. This site overlies an earlier enclosure containing rig cultivation.

Site No. 5

GPS Grid ref.	NG 3049 4711	Ruinous
Description	House	The degraded remains of a round cornered stone-built house lying on a north-west to south-east alignment. The house measure 10 metres by 6 metres over walls 1.5 metres thick. An entrance lies on the north-west side.

Site No. 6

GPS Grid ref.	NG 30654709	Degraded
Description	Turf foundations	The degraded remains of a turf built house? consisting of a rectangular turf banked enclosure, with rounded corners, which stands nowhere more than 0.3 metre high. The remains of this structure appear to overlie the rig cultivation which lies all around.

Site No. 7

GPS Grid ref.	NG 3087 4679	Degraded
Description	Shielings	A dispersed group of 30 degraded turf and turf and stone shieling huts, lying on both banks of the Rageary Burn at the point where the burn emerges from a deeply cut ravine. Both single-cell and double-cell examples are present in roughly equal numbers. These shielings lie on a large area of very green, improved, grassland which is enclosed by a turf dyke on its southern side.

Site No. 8

GPS Grid ref.	NG 3130 4600	Degraded
Description	Shielings	A linear group of 4 turf shieling huts lying on a narrow strip of green grass on the south-east side of a small burn. There are 3 single-celled and 1 double-celled example. All are in very poor condition.

Site No. 9

GPS Grid ref.	NG 3161 4624	Ruinous
Description	Shieling	A twin-celled, stone built, shieling set against a small rocky outcrop on the north-west side of a small burn.

Site No. 10

GPS Grid ref.	NG 3187 4682	Ruinous
Description	Shielings	A well preserved group of 3 stone-built shielings lying in a small sheltered hollow on the north-west flank of Ben Aketil. A small burn runs down the centre of the hollow and a wire fence lies just to the north-west of the group of shielings. The group consists of two twin and 1 single-celled example.

Site No. 11

GPS Grid ref.	NG 3126 4684	Well preserved
Description	Turf foundations	The well preserved foundations of a turf bothy lying on the north bank of the Rageary Burn. The remains of this site lie in the bottom of the ravine against the south facing slope and measure 7 metres long by 5 metres wide over a wall 1.5 metres thick. A door opening lies in the east end wall.

Site No. 12

GPS Grid ref.	NG 3073 4715	Ruinous
Description	Pen.	A ruinous stone pen lying on the east bank of the Caroy River. The remains are rectangular in plan, have rounded corners and measure 7 metres by 6 metres over walls 1 metre thick. A heap of stones lies in the southern internal corner.

Site No. 13

GPS Grid ref	NG 3055 4849	Very Degraded
Description	Shieling pen	& A very degraded twin-celled shieling lying at the base of a low east facing cliff. Immediately to the west, and also built against a low cliff, is a semi-circular pen which measures 5 metres by 5 metres over walls 0.6 of a metre thick.

Site No. 14

GPS Grid ref	NG 2990 4910	Well preserved
Description	Shieling	A well preserved, twin-cell, shieling set against the foot of an east facing rocky outcrop. The southern cell, which uses the outcrop as one side, measures 3.5 metres by 2 metres over walls 0.5 metre thick. The northern cell is turf built and is less well preserved. It measures 2 metres by 1 metre overall.

Site No. 15

GPS Grid ref.	NG 2996 4863	Well preserved
Description	Shieling	A well preserved twin-cell shieling lying on the north-east side of Maesweyn's Burn. The larger cell is 3.9 metres in diameter over walls 0.9 metre thick. The smaller measures 2.45 metres by 2.3 metres over walls 0.85 of a metre thick.

Site No. 16

GPS Grid ref.	NG 3002 4844	Degraded
Description	Shieling	A degraded, boulder built, twin-celled shieling lying on the south-west side of a wire fence which runs along the south-west side of Maesweyn's Burn. The larger cell measures 5 metres by 3 metres overall, the smaller cell 3 metres by 2 metres overall.

Site No. 17

GPS Grid ref.	NG 3025 4833	Very degraded
Description	Shieling	A low green mound, 5 metres in diameter, lying on the north side of Maesweyn's Burn. The south side of the mound has been cut away by the burn revealing the layered make-up of a typical shieling mound.

Site No. 18

GPS Grid ref.	NG 3047 4831	Very degraded
Description	Shieling	An area of green, improved, grass lying on the north bank of Maesweyn's Burn. An area of raised bumpy ground at the centre may be the remains of a small turf shieling hut.

Site No. 19

GPS Grid ref.	NG 3047 4822	Ruinous
Description	Hut Circle & Shieling	A stone-built circular foundation with an overlying multi-cell shieling situated at the foot of an east facing rocky outcrop. The circular stone foundation measures 10.4 metres in diameter over walls 1.5 metres thick. A partially robbed entrance, 0.9 of a metre wide at the inner end, is visible on the south side. The overlying shieling is a complex grouping of 2 large cells and 3 smaller cells. All are contained within the ruins of the circular structure and have

been constructed from stone robbed from the circular foundation.

Site No. 20

GPS Grid ref. **NG 3034 4726**

Ruinous/degraded

Description **Shielings**

A dispersed group of 19 degraded shielings. All except two are of turf construction and show either as green mounds with a small central depression, or low circular banks up to 5.0 metres in diameter. They are mainly of the single-cell type with one or two double-cell examples present. The two stone examples resemble houses more than shielings being 10 metres long by 4 metres wide over walls 1.5 metres thick. Small areas of lazy-beds* lie close to both these structures.

* Lazy beds are linear raised beds used to raise cultivated crops out of wet ground. The term 'lazy-bed' because English visitors thought the local farmers preferred to stand rather than bend down to work their crops.

Site No. 21

GPS Grid ref. **NG 3056 4700**

Very degraded

Description **Shieling**

A very degraded and much reduced twin-celled shieling lying on the green, improved, grassland some 30 metres to the south-west of the south-west corner of the Cnocantoul enclosure.

Site No. 22

GPS Grid ref. **NG 3064 4702**

Degraded

Description **Hut circle**

Lying close to the east to west running dyke which underlies the Cnocantoul enclosure are the disturbed foundations of a circular structure which measures 5 metres in diameter over walls of uncertain width. This is not a shieling. The site has later been used as a dump for field clearance.

Site No. 23

GPS Grid ref. **NG 3059 4678**

Degraded

Description **Hut circle**

Lying on an open grassy area, to the east of the hill road are the foundations of a small circular hut. The foundations measure 4 metres in diameter over walls of uncertain width. The internal diameter is 2.2 metres. A disturbed entrance faces downhill and to

the east.

Site No. 24

GPS Grid ref.	NG 3051 4666	Very degraded
Description	Cist burial (possible)	Lying on an open grassy area to the east of the hill road is a small pile of stones with what appears to be a disturbed cist at its centre. The cairn, if that is what it is, measures just over 3 metres in diameter. The cist is made up of three slabs of stone and measures 0.4 metre square. The east side of the cist is missing. Possibly just a clearance cairn.

Site No. 25

GPS Grid ref.	NG 3044 4652	Degraded
Description	Shielings	A compact group of 4 degraded shieling huts lying on both banks of a small burn about 30 metres below the hill road. During recent re-cutting of the burn channel, and an adjacent ditch, much debris has been dumped on this site. All the shielings, except the eastern most are now difficult to make out.

Site No. 26

GPS Grid ref.	NG 3039 4652	Degraded
Description	Shielings enclosure	& The degraded remains of two single-cell turf shielings lie 30 metres to the west of the hill road. The fragmentary remains of a turf dyked enclosure lie 20 metres above the hill road between the shielings and a small burn that lies 6 metres to the south.

Site No. 27

GPS Grid ref.	NG 3050 4680	Ruinous
Description	Farmstead	Lying on a south-east facing terrace, 60 metres to the east of the hill road, are the remains of a small farmstead. The site consists of a slightly banana shaped long-house, with rounded ends, which measures 13 metres by 6 metres over walls 1 metre thick. A small annex, measuring 5 metres square, is attached to the south-west long-wall of the house. A pile of stones lies in the north-west interior corner of the house. About 15 metres to the south is a small byre which measures 6 metres long by 4.5 metres wide over walls 1 metre thick. A 'D' shaped yard is attached to the south-west side of the byre.

Site No. 28

GPS Grid ref **NG 3006 4560**

Ruinous

Description **Farmstead**

Lying by the East side of the hill road, are the ruinous remains of three buildings and several related enclosures. About 25 metres to the east of the road is a stone long-house which measures 10 metres by 6 metres over walls 0.9 metre thick. An entrance lies at the north-west end of the south-west wall. To the north-east of the long-house is a second stone building which measures 8 metres by 6 metres over walls 0.8 metre thick. This building has an annex which measures 4 metres square attached to its east side. About 50 metres to the south of the first two buildings is a very degraded, turf and stone built, structure which measures 12 metres long by 7 metres wide over walls now spread to 2 metres wide. This building is divided into two unequal compartments measuring 4.5 metres and 2.5 metres internally. Lying between the two stone structures and the turf and stone building is a well preserved length of stone faced dyke which has one end attached to the south-east corner of the long-house. Lying between the long-house and the road are the fragmentary remains of several small enclosures.

Site No. 29

GPS Grid ref. **NG 2991 4454**

Degraded

Description **Byre**

Lying just to the west of the township road and outwith the roadside fence is a very degraded stone foundation which measures 4 metres square over walls 0.9 metre thick. A partially robbed entrance lies in the north-east corner of the foundation, facing the road.

Site No. 30

GPS Grid ref. **NG 2991 4477**

Degraded

Description **Byre and bothy**

Lying just to the West side of the township road and to either side of the road fence are the degraded remains of two small stone structures. Lying to the east of the fence, and almost cut by the roadside ditch, is a stone foundation which measures 4 metres square over walls 0.5 metre thick. To the west of the fence is a second stone foundation which

measures 3 metres by 2.2 metres over walls 0.4 metre thick.

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Ben Aketil Wind Farm



Key
Application boundary

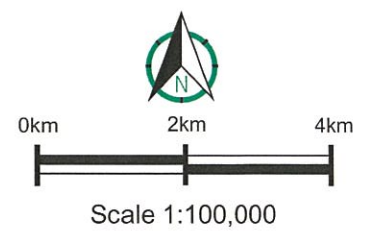
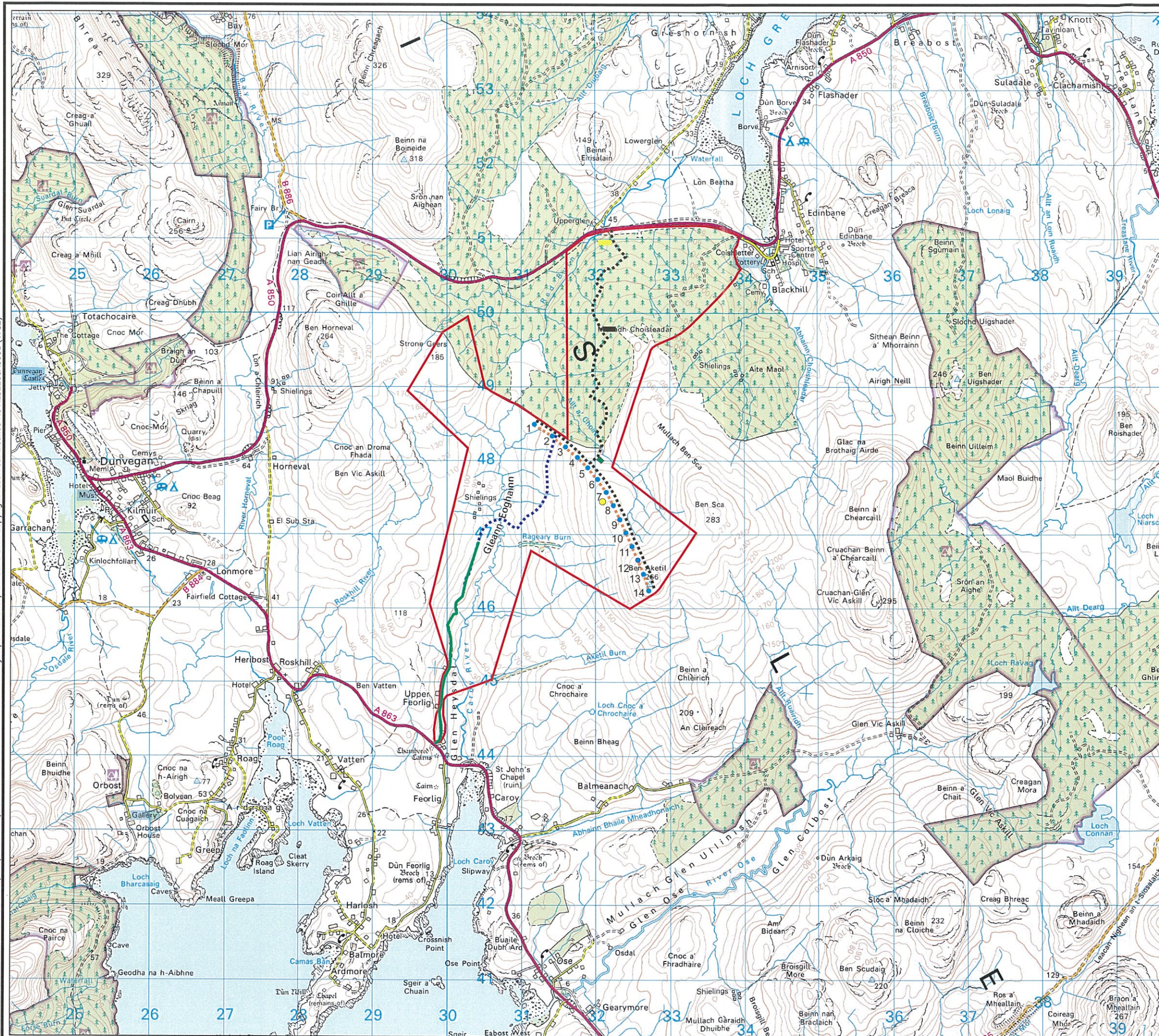


Figure 1 Site Location

Produced West Coast Energy Ltd
Date 06/08/02
Drawing Number 84/site/location/1a



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Ben Aketil Wind Farm



Key

- Application boundary
- Turbine location
- Control building location
- Met mast location
- Underground cable route
- Laydown area 1(Temporary)
Access control and co-ordination,
visitor parking
- Laydown area 2(Temporary)
Site Facilities and Storage
- Main site access
- Light site access
- Existing track



0km 1km 2km

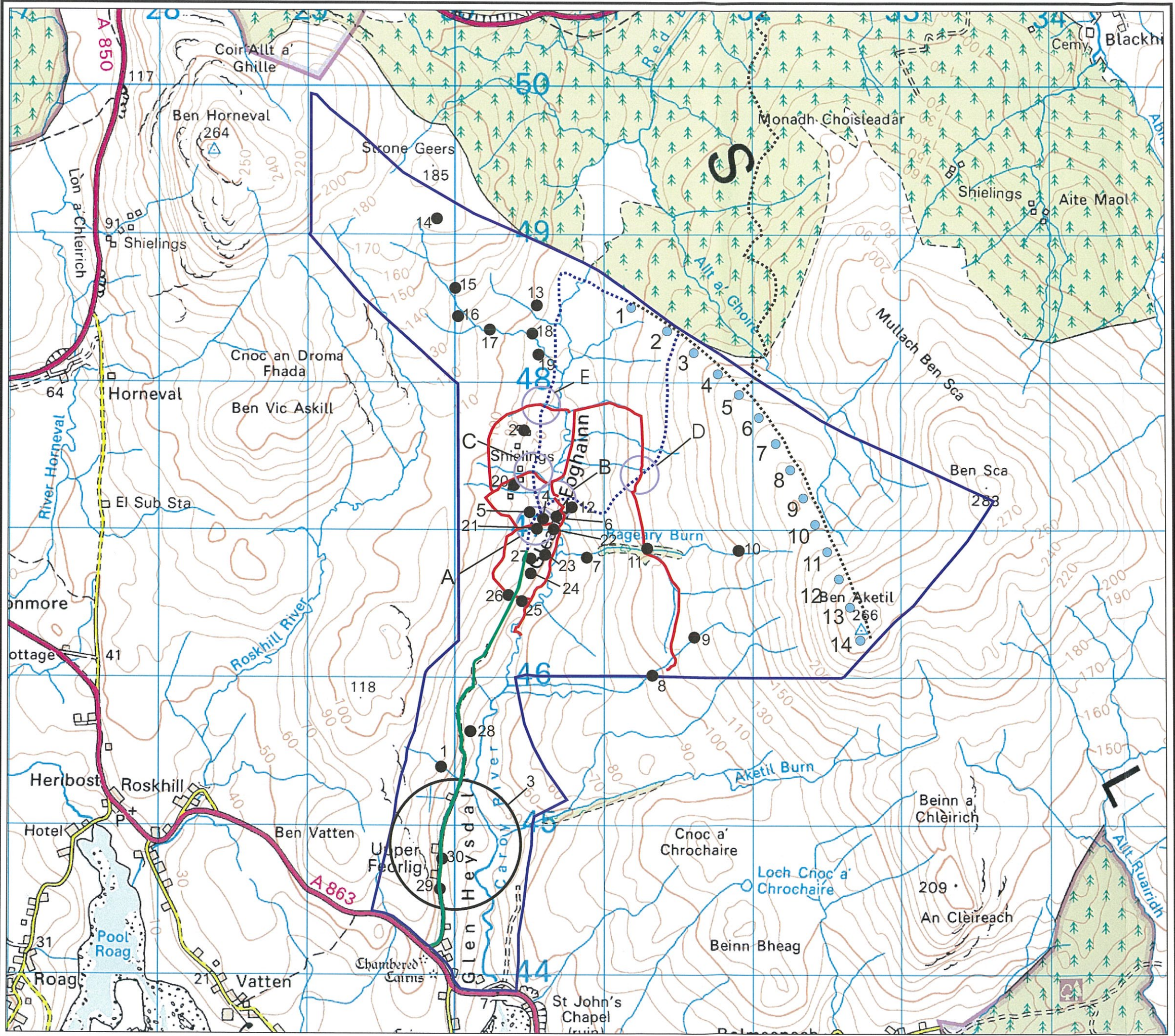
Scale 1:50,000

Figure 2 Site Layout

Produced
Date
Drawing Number



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Ben Aketil Wind Farm



Key

- Survey area
- - - Main site access
- - - Light site access
- Existing track
- Turf dyke boundary
- 11 ● Turbine Location
- A ○ Turf dyke boundary crossing points
- 23 ● Archaeological Site

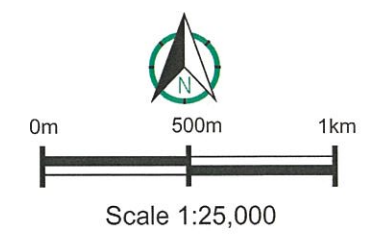


Figure 13
Archaeological Sites & Turf Dyke Boundaries