

**CFA ARCHAEOLOGY LTD**

The Old Engine House  
 Eskmills Business Park  
 Musselburgh  
 East Lothian  
 EH21 7PQ

Tel: 0131 273 4380  
 Fax: 0131 273 4381  
 email: [info@cfa-archaeology.co.uk](mailto:info@cfa-archaeology.co.uk)  
 web: [www.cfa-archaeology.co.uk](http://www.cfa-archaeology.co.uk)

Author	George Mudie MA FSA Scot MIfA
Illustrator	Shelly Werner BA MPhil PhD FSA Scot
Editor	Tim Neighbour BSc FSA Scot MIfA
Commissioned by	SSE Renewables developments (UK) Ltd
Date issued	November 2009
Version	FINAL
OASIS Reference	cfaarcha1-54688
Planning Application No.	
Grid Ref	NR 790 475

This document has been prepared in accordance with CFA Archaeology Ltd standard operating procedures.

**Cour Wind Farm EIA:  
 Cultural Heritage Assessment**

## Chapter 9 – Cultural Heritage

### Introduction

- 9.1 This chapter considers the likely effects on cultural heritage interests from the construction, operation and decommissioning of the proposed windfarm and the site access road.
- 9.2 The specific objectives of the cultural heritage study were to:
- Identify the cultural heritage baseline within and in the vicinity of the proposed development area.
  - Assess the proposed windfarm area and the site access route in terms of their archaeological and historic environment potential.
  - Consider the potential and predicted effects of the construction and operation of the proposed development on the baseline cultural heritage resource, within the context of relevant legislation and planning policy guidelines.
  - Propose measures, where appropriate, to mitigate any predicted significant adverse effects and identify the significance of any residual impacts.
- 9.3 Figure 9.1 depicts the proposed windfarm layout and shows the locations of archaeological sites and monuments identified by the cultural heritage study. A gazetteer of those sites is provided as Appendix 9A.
- 9.4 Figure 9.2 depicts the proposed windfarm site access road and shows the locations of archaeological sites and monuments identified by the cultural heritage study within a 100m wide corridor centred on the route. A gazetteer of those sites is provided as Appendix 9B. Those previously recorded sites and monuments that lie in close proximity to the study corridor are also shown; where appropriate, these are referenced in the text.
- 9.5 Figure 9.3 shows the proposed windfarm in its wider landscape setting together with the zones of theoretical visibility (ZTV), based on a 111.25m blade tip height, along with those key cultural heritage receptors within 15km of the proposed development that would have a theoretical view of the turbines. Appendix 9C contains a list of those key receptors and provides a summary assessment of the predicted indirect visual effects, on a site by site basis.
- 9.6 The cumulative effect on cultural heritage resources in the vicinity of the proposed windfarm in combination with other operational, consented, or scoped windfarms within 15km has also been considered.

### Methodology

#### **Legislation and Guidance**

- 9.7 Scotland's historic environment contributes to the Scottish Government's strategic objectives and to the National Performance Framework. The Scottish Historic Environment Policy (SHEP) document<sup>1</sup> sets out Scottish Ministers' policies for the historic environment, and provides policy direction for Historic Scotland and a framework that informs the day-to-day work of a range of organisations that have a role and interest in managing the historic environment. Through the SHEP Scottish Ministers are determined to achieve three outcomes for Scotland's historic environment:
- That the historic environment is cared for, protected and enhanced for the benefit of our own and future generations;
  - To secure greater economic benefits from the historic environment; and

<sup>1</sup> Historic Scotland, *The Scottish Historic Environment Policy (SHEP) document* (2009)

- That the people of Scotland and visitors to our country value, understand and enjoy the historic environment.

#### **Cultural heritage resources**

- 9.8 The recently published Scottish Planning Policy (SPP 2010) is a shorter and more focused statement of national planning policy generally. The SPP revokes SPP 23: Planning and the Historic Environment which previously set out the national planning policy for the historic environment and indicates how the planning system will contribute towards the delivery of Scottish Ministers' policies as set out in the SHEP. Sites with statutory and non-statutory designations are material considerations in the planning process and the Scottish Government expects local authorities and others to maintain and strengthen their commitment to stewardship of the historic environment, and to reflect this planning guidance in their policies and their allocation of resources. Additional guidance, specific to listed buildings and conservation areas, is provided in Historic Scotland's series 'Managing Change in the Historic Environment Guidance Notes' which provides operational guidance from the now withdrawn Memorandum of Guidance on Listed Buildings and Conservation Areas.
- 9.9 Cultural heritage resources include sites with statutory and non-statutory designations. The historic environment includes ancient monuments, archaeological sites and landscape, historic buildings, townscapes, parks, gardens and designed landscapes and other features. Sites with statutory designations include:
- • Scheduled Monuments;
  - • Listed Buildings;
  - • Conservation Areas; and
  - • Designated Shipwrecks
- 9.10 Sites with non-statutory designations include:
- • World Heritage Sites;
  - • Gardens and Designed Landscapes;
  - • Other Historic Environment Interests; and
  - • Historic Battlefields
- 9.11 Those relevant to this assessment are Scheduled Monuments, Listed Buildings and other historic environment interests. Unless directly affected by the development, Gardens and Designed Landscapes are considered in Chapter 5: Landscape and Visual Assessment, of the Environmental Statement, which considers the effect of the windfarm on the surrounding landscape. No Gardens or Designed Landscapes would be directly affected by the proposed development therefore these are not considered further in this chapter

#### **Sites with statutory designations**

##### **Scheduled Monuments**

- 9.12 Scheduled Monuments are protected under the Ancient Monuments and Archaeological Areas Act 1979 (1979 Act). The statutory consent of the Scottish Ministers is required before any works are carried out which would affect a Scheduled Monument. Impacts upon the setting of a Scheduled Monument form an important consideration in the granting or refusal of planning consent. Further information on development control procedures relating to Scheduled Monuments is provided in SHEP, SPP and PAN 42, Archaeology (PAN 42).

##### **Listed Buildings**

- 9.13 Listed Buildings are classified into Categories A, B and C(S) and are protected under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (1997 Act). Under the 1997 Act Scottish Ministers are required to compile a list of buildings of special architectural or historic

interest. Planning authorities and the Scottish Ministers are required to have special regard for the desirability of preserving Listed Buildings and their settings and any features of special architectural or historic importance they possess. Government policy and guidance is also provided in SHEP and in SPP. Additional guidance is provided in Historic Scotland's 'Managing Change in the Historic Environment Guidance Notes'.

#### Other Historic Environment Interests

9.14 There is a range of other non-designated archaeological sites, monuments and areas of historic interest, including historic landscapes, other gardens and designed landscapes, woodlands and routes such as drove roads that do not have statutory protection. Sites without statutory protection are curated by the local planning authority and SPP and PAN 42 provide national planning policy guidance and advice on the treatment of such resources. SPP requires that planning authorities ensure that development plans provide land-use policy frameworks for the protection, conservation and enhancement of the historic environment within which any development impacts can be properly assessed. PAN 42 indicates that the principle that should underlie all planning decision-making is preservation of cultural resources *in situ* where possible and by record if destruction cannot be avoided. It is recognised in PAN 42 that preservation may not always be possible and where damage is unavoidable various mitigation measures may be proposed.

#### Regional and Local Planning Policy

##### Structure Plan

9.15 Argyll and Bute Structure Plan (Approved November 2002) provides a development strategy which, amongst other objectives, aims to promote the safeguarding and enhancement of the historic environment.

9.16 Policy STRAT DC 8 states that development which, by reason of location, siting, scale, form, design or cumulative impact, damages or undermines the key environmental features of a visually contained or wider landscape or coastscape shall be treated as 'non-sustainable' and is contrary to this policy. In Argyll and Bute important and vulnerable landscapes, outwith the National Park, include those associated with historic landscapes and their settings and those with close links with archaeology and built heritage and/or historic gardens and designed landscapes.

9.17 Policy STRAT DC 9 states that protection, conservation, enhancement and positive management of the historic environment is promoted. Development that damages or undermines the historic, architectural or cultural qualities of the historic environment will be resisted; particularly if it would affect a Scheduled Monument or its setting, other recognised architectural site of national or regional importance, Listed Building or its setting, Conservation Area or Garden and Designed Landscape, (detailed policy and proposals for the protection of the historic environment are set out in the Local Plan).

9.18 With regard to windfarm developments, Policy STRAT RE 1 states that development of renewable energy sources should include assessment of the impact on the area's historical environment. Proposals shall be supported where it can be demonstrated there is no significant adverse affect on landscape character and visual amenity, and historic environment.

##### Local Plan

9.19 At a local level the Argyll and Bute Local Plan (Adopted 2009) Policy LP ENV13(a) - Development Impact on Listed Buildings - states that any development affecting a listed building or its setting shall preserve the building or its setting, and any features of special or historic interest that it possesses. Where development would affect a heritage asset or its setting the developer will be expected to satisfactorily demonstrate that the impact of the development upon that asset has been assessed and that measures will be taken to preserve and enhance the special interest of the asset. Measures

to mitigate against impact are likely to include enhanced physical access, interpretation and the provision of an open space or landscaped buffer zone, as appropriate.

9.20 Policy LP ENV16 - Development Impact on Scheduled Monuments - states that there will be a presumption in favour of retaining, protecting, preserving and enhancing Scheduled Monuments and their settings. Developments that have an adverse impact on Scheduled Monuments and their settings will not be permitted unless there are exceptional circumstances. Where development would affect adversely a heritage asset or its setting the developer will be expected to satisfactorily demonstrate that the impact of the development upon that asset has been assessed and that measures will be taken to preserve and enhance the special interest of the asset. Measures to mitigate against impact are likely to include enhanced physical access, interpretation and the provision of an open space or landscaped buffer zone, as appropriate.

9.21 Policy LP ENV17 - Development Impact on Sites of Archaeological Importance - states that there is a presumption in favour of retaining, protecting, preserving and enhancing the existing archaeological heritage and any future discoveries found in Argyll and Bute.

When development is proposed that would affect a site of archaeological significance, the following will apply:

- The prospective developer will be advised to consult the Council and its advisors (West of Scotland Archaeology Service) at the earliest possible stage in the conception of the proposals; and
- An assessment of the importance of the site will be provided by the prospective developer as part of the application for planning permission or (preferably) as part of the pre-application discussions.

When development that will affect a site of archaeological significance is to be carried out, the following will apply:

- Developers will be expected to make provision for the protection and preservation of archaeological deposits *in situ* within their developments, where possible by designed foundations that minimise the impact of the development on the remains; and
- Where the Planning Authority deems that the protection and preservation of archaeological deposits is not warranted for whatever reason, it shall satisfy itself that the developer has made appropriate and satisfactory provision for the excavation, recording, analysis and publication of the remains.

Where archaeological remains are discovered after a development has commenced, the following will apply:

- The developer will notify the West of Scotland Archaeology Service and the Council immediately, to enable an assessment of the importance of the remains to be made; and
- Developers should make appropriate and satisfactory provision for the excavation, recording, analysis and publication of the remains.

#### Baseline Studies

9.22 This assessment has been conducted in accordance with the Institute for Archaeologists Code of Conduct<sup>2</sup> and Standard and Guidance for Archaeological Desk-based Assessment<sup>3</sup>.

#### Consultations

9.23 A summary of consultees responses is set out below with the complete responses contained in Appendix 2B.

<sup>2</sup> IfA 2006 'By-Laws: Code of Conduct'. Institute for Archaeologists.

<sup>3</sup> IfA 2001 'Standard and guidance for archaeological desk-based assessment'. Institute for Archaeologists

*Historic Scotland 12/01/08*

- Provided general advice on the principles to be considered as part of the Environmental Impact Assessment (EIA) and a copy of Historic Scotland's guidance document 'Assessment of Impact on the Setting of the Historic Environment Resource'<sup>4</sup>;
- Confirmed that there are no Scheduled Monuments, Listed Buildings or Gardens and Designed Landscapes within the proposed development area;
- Stated that impact on the settings of Listed Buildings and Scheduled Monuments in the vicinity should be assessed. It is considered unlikely that any Gardens and Designed Landscapes would be affected by this development; and
- Confirmed that the closest Listed Building to the proposed development is the Category A listed Cour House. Noted that there are numerous Scheduled Monuments in the vicinity of the proposed site boundary and that a development of this type, in this location, could affect the settings of cultural heritage resources across a wide area.

*Argyll and Bute Council 12/02/08*

- Advised that an archaeological assessment would be required which should consider the impact of the proposal (individually and in association with other sites) upon the landscape setting of heritage resources within the zone of visual influence, including historic landscapes, monuments, unscheduled archaeological sites and Listed Buildings.

*North Ayrshire Council 28/01/08*

- Raised no specific issues in respect of cultural heritage issues.

*West of Scotland Archaeology Service (WoSAS) 28/11/08*

- Advised that all data available on the Site and Monuments Record (SMR) had already been identified by the assessment (as indicated on the baseline illustration) and that there were no additional sites to add;
- Considered that there are unlikely to be any setting issues on cultural heritage sites within 5km of the proposed development area; and
- Advised that the potential for unrecorded archaeology within the proposed development area was not high, given the height, steepness and exposure of much of the terrain.

**Desktop survey**

- 9.24 Up-to-date information was obtained from appropriate sources on the locations of cultural heritage sites with statutory protection and non-statutory designations within or in the vicinity of the proposed development area.
- 9.25 Details of the locations and extents of Scheduled Monuments, Listed Buildings, Gardens and Designed Landscapes within the proposed windfarm area, along the proposed access road corridor and within 15km of the proposed site boundary were downloaded, in GIS format, from Historic Scotland's website<sup>5</sup>.
- 9.26 Information on the character and condition of known and recorded archaeological sites and monuments within and adjacent to the windfarm site boundary and along the proposed site access road corridor was obtained from the National Monuments Record of Scotland (NMRS) and from Pastmap (online data resource maintained by the Royal Commission on the Ancient and Historic Monuments of Scotland (RCHAMS) and Historic Scotland<sup>6</sup>).

<sup>4</sup> Historic Scotland, 2007

<sup>5</sup> <http://hsewsf.sedsh.gov.uk/gisdl.html>

<sup>6</sup> <http://jura.rcahms.gov.uk/PASTMAP/start.jsp>

- 9.27 Information was obtained from the WoSAS SMR on known archaeological sites and monuments within the proposed windfarm area, along the proposed access road corridor and within 3km of the proposed site boundary.
- 9.28 Ordnance Survey maps and other historic maps held by the Map Library of the National Library of Scotland were examined to provide information on sites of potential archaeological significance and on historic land-use development.
- 9.29 An assessment was made of vertical aerial photograph collections held by The Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS). Sorties dating from 1944, 1946, 1948 and 1988 were available for examination.
- 9.30 Bibliographic references were consulted to provide background and historical information.
- 9.31 The Scottish Palaeoenvironmental Database,<sup>7</sup> which records the distribution of known palaeoenvironmental sites across Scotland, was consulted in order to identify any previously identified recorded sites of palaeoenvironmental potential in the vicinity of the proposed development area.
- 9.32 The online Historic Land-Use Assessment for Scotland<sup>8</sup>, maintained by the RCAHMS was consulted for information on the historic land-use character of the proposed development area.

**Field Survey**

- 9.33 A walk-over reconnaissance field survey was undertaken within the proposed windfarm development area in July 2008 and along the revised, current, access track corridor and at proposed borrow pit locations in August 2009 in order to:
- Confirm and assess the baseline condition of the known archaeology and heritage features, identified through the desk-based assessment;
  - Identify any further features of cultural heritage interest not detected from the desk-based assessment and identify areas with the potential to contain currently unrecorded, buried archaeological remains; and
  - Assess the potential effects, resulting from the construction of the proposed development, on cultural heritage sites and areas, and their settings, where appropriate.
- 9.34 Site locations were recorded using a Global Positioning System (GPS) with sub-metre accuracy. At the time of the field surveys, vegetation conditions were such that there was restricted visibility of low relief remains. Where possible, cultural heritage features were identified and recorded. Where features could not be accurately identified during the survey (due to dense and tall bracken cover) cartographic sources were used to extrapolate their locations and extents as shown on Figures 9.1 and 9.2.
- 9.35 No intrusive archaeological investigations have been carried out as part of this assessment.

**Limitations**

- 9.36 Field surveys were not carried out in the dense commercial conifer plantation at Cnoc an t-Samhlaidh at the eastern end of the proposed site access road.
- 9.37 High bracken cover and dense, grassy vegetation over parts of the proposed windfarm site restricted the ability to identify features with low relief in those areas. However, this only applied to areas well clear of any proposed turbine locations and did not significantly affect the identification of archaeological or historic environment sites in proximity to proposed development locations.

<sup>7</sup> <http://xweb.geos.ed.ac.uk/~ajn/spad>

<sup>8</sup> <http://www.rcahms.gov.uk>

### Assessment of Significance

9.38 Effects have been assessed in the following categories:

- **Direct:** where there would be a physical impact on a site caused by the construction of the proposed windfarm. Construction activities may include ground-disturbing excavations for turbine foundations, cable trenches, and access tracks and borrow pits. In addition, ground disturbance, such as may be caused by vehicle movement, and soil and overburden storage, can produce irreversible effects upon archaeological features. Direct effects on cultural heritage features are normally adverse, permanent and irreversible;
- **Indirect:** where the setting of a site may be affected. Indirect effects may relate to development reducing views to or from cultural heritage features with important landscape settings; they may result from increased noise or vibration, or increased fragmentation of the historic landscape and the loss of connection between its component parts. Such effects are likely to occur during the construction phase of the development and persist through the operational phase and be removed by the decommissioning of the windfarm. Indirect effects on cultural heritage features can be adverse, neutral or beneficial in effect;
- **Uncertain:** where there is a risk that the works may impinge on a site. For example, where it is not clear where the location of a site is or where its boundaries lie, or where the baseline condition of a site cannot be established satisfactorily; and
- **None:** where no effect is predicted.

9.39 Potential effects, direct and indirect, have been assessed in terms of their longevity, reversibility and nature (beneficial / neutral / adverse):

- Permanent effects are those that persist beyond the predicted operational lifetime of the proposed windfarm. All direct effects are considered to be permanent;
- Temporary effects arise as a result of the presence of elements of the proposed windfarm but which would be removed by the dismantlement of those elements. Temporary effects can be short-term (e.g. construction phase effects); or long-term (arising from the long-term presence of buildings or other structures affecting the setting of the receptor);
- Reversible effects are those that are removed by the decommissioning / dismantling of the development;
- Irreversible effects are those that persist beyond the lifetime of a receptor. All permanent and direct effects are irreversible;
- Positive effects are those that contribute to the value of a receptor through enhancement of desirable characteristics or the introduction of new, positive attributes;
- Neutral effects occur where the development can be accommodated comfortably by the receptor while neither contributing to nor detracting from the value of the receptor; and
- Negative effects are those that detract from the value of a receptor through a reduction in, or disruption of, valuable characterising components or patterns, or the introduction of new inappropriate characteristics.

9.40 The assessment of significance of effects both direct (e.g. disturbance caused by construction operations) or secondary/indirect (e.g. effect on setting) takes into account the sensitivity of the receptor and the magnitude of effect. Where a physical effect on a feature is predicted, the assessment of effect contains a summary statement of cultural significance.

9.41 The assessment of sensitivity of archaeological and heritage assets reflects the relative weight which statute and policy attach to them, following guidance published in SHEP and SPP.

9.42 Sites of national importance comprise those sites protected by scheduling under the 1979 Act, and sites of 'schedulable quality'. Scheduling is an ongoing process and not all sites are of 'schedulable quality' are currently scheduled, including sites identified in non-statutory registers as very likely of national importance (NSR Codes C and V). Sites of regional or local importance are those that do

not merit scheduling, but which may have significance within a regional or local context. This may, for example, apply to importance to regional or local history, or they may be the only local example of a monument type. A final category, sites of lesser importance, covers those archaeological or historic environment features that are of little intrinsic cultural heritage value and the find-spots of artefacts now removed.

9.43 Listed buildings are categorised according to their relative importance (1997 Act; Section 1; SHEP). Category A Listed Buildings are of national or international importance, Category B Listed Buildings are of regional or more than local importance, and Category C(S) Listed Buildings are of local importance. Gardens and Designed Landscapes contained within the Inventory are considered to be nationally important.

9.44 Table 9.1 summarises the relative importance of key cultural heritage resources.

**Table 9.1 - Definitions of Importance of Cultural Heritage Resources**

Importance/Sensitivity	Site type
<b>International</b>	<b>World Heritage Sites</b>
<b>National</b>	Scheduled Ancient Monuments Sites of schedulable quality Category A Listed Buildings Inventory status Gardens and Designed Landscapes Outstanding Conservations Areas
<b>Regional</b>	Archaeological sites and areas of distinctive regional importance Category B Listed Buildings Conservation Areas
<b>Local</b>	Archaeological sites and areas of local importance Category C(S) listed buildings Unlisted buildings and townscapes of some historical or architectural interest
<b>Lesser</b>	Other archaeological sites of little intrinsic value Find-spots

9.45 Magnitudes of effect are assessed in the categories high, medium, low, imperceptible and none, and are described in Table 9.2.

**Table 9.2 - Definitions of Magnitude of Effect**

Level of Magnitude	Definition
<b>High</b>	Major effects fundamentally changing the baseline condition of the receptor, leading to total or major alteration of character or setting.
<b>Medium</b>	Moderate effects changing the baseline condition of the receptor, leading to total or major alteration of character or setting.
<b>Low</b>	Minor detectable effects which do not alter the baseline condition of the receptor materially.
<b>Imperceptible</b>	A very slight and barely distinguishable change from baseline conditions
<b>None</b>	No discernible change to the baseline condition of the character or setting of the receptor

9.46 Table 9.3 combines the criteria from Tables 9.1 and 9.2 to provide a matrix which, together with professional judgement, is used to determine the level of significance of a particular effect (direct or indirect) as required by the EIA Regulations. Moderate and major effects are considered to be significant.

**Table 9.3 - Matrix for Assessing Significance of Effect**

Magnitude of Effect	Sensitivity of Receptor			
	National/International	Regional	Local	Lesser
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate/minor	Minor	Negligible	Negligible
Imperceptible	Minor	Negligible	Negligible	Negligible
None	None	None	None	None

- 9.47 All Scheduled Monuments, Category A, B, C(S) Listed Buildings and Conservation Areas within a 15km viewshed around the area of turbines, have been assessed against the theoretical ZTV map.
- 9.48 The effects of the proposed windfarm on the settings of Gardens and Designed Landscapes are considered in Chapter 5, Landscape and Visual Assessment of the ES.
- 9.49 PAN 45 notes that: '*visual effect will be dependent on the distance over which a windfarm may be viewed, whether the turbines can be viewed adjacent to other features, different weather conditions, the character of the development and the landscape and nature of the visibility*<sup>9</sup>'.
- 9.50 The assessment of magnitude of effects provided in Appendix 9C has been based on analysis of the blade tip ZTV (111.25m to tip) (Figure 9.3), taking into account the distance of the assessed site from the proposed windfarm, the number of turbine blade tips visible, and the degree of visibility of the windfarm as a whole. The ZTV model is, however, a coarse predictive tool based on bare-earth surface topography and maximum blade-tip heights. It takes no account of obstructions to visibility caused by existing forestry and other vegetation or buildings and other man-made features. In practice it is likely that the windfarm would be screened from view from many of the sites in the wider landscape by the presence of intervening commercial forestry.

## **Baseline Description**

### **General**

- 9.51 Twelve sites of cultural heritage interest have been identified within the proposed windfarm area (Figure 9.1) and nineteen sites have been identified within a 100m corridor, centred on the proposed external site access road (Figure 9.2), from examination of desk-based sources and a reconnaissance field survey. Appendices 9A and 9B provide tabulated gazetteer information on the character and baseline condition of each site, and provide an attributed level of importance to each. The character and importance of the cultural heritage resource is discussed thematically below. Site numbers are shown in brackets, in the following text.

### **Assessment of Importance of Cultural Heritage Features**

- 9.52 There are no sites of international, national or regional importance within the proposed windfarm area or within the proposed site access road study corridor. Two Scheduled Monuments: Ballochroy Standing Stones (175) and An Dunan Dun (3184), of national importance, lie within 200m of the proposed access road.

### **Proposed windfarm area (Figure 9.1)**

- 9.53 There are seven sites considered to be of local importance within the proposed windfarm area. These include farmstead building remains (3, 7, 9 and 11), two groups of shielings (2 and 4) and a possible sheepfold (5). Shielings are the remains of seasonal (summer) occupation sites associated

with pastoral practices. Most usually they are of medieval or post-medieval date, although in some cases they may have earlier origins.

- 9.54 Three sites are considered to be of lesser importance within the proposed windfarm area. These are field banks (6 and 10) and a quarry (12). The field banks most likely relate to 18th and 19th century farming activities, while the quarry is probably of 20th century date and linked to the construction of the coastal road (B842).
- 9.55 A shieling (1) that was not located during the field survey and the remains of a possible building (8) of later medieval or post-medieval date are considered to be of unknown (but no more than local) importance.

### **Proposed external site access road corridor and borrow pits (Figure 9.2)**

- 9.56 There are four sites along the proposed site access road corridor considered to be of local importance: a township (13); a farmstead (15) at Ballochroy; and a series of field boundaries (29 and 30) forming part of a field system associated a farmstead at Minen (NR75SE 12).
- 9.57 Eleven sites are considered to be of lesser importance: a bridge (14); a former head-dyke (16); two culverts (18 and 19); two former tracks and associated field boundaries (21 and 27); several fragmentary field boundaries (22, 23, 26 and 28); and an area of former rig and furrow cultivation (25).
- 9.58 There are also four sites are of unknown importance. These are a standing stone (17), a building (20), a possible farmstead (24) and two shieling huts (31). Due to dense vegetation or woodland access to the recorded location of these sites was restricted during field survey and their baseline condition is currently unknown. However, none of these sites are likely to be of more than local importance.
- 9.59 No sites of cultural heritage interest have been identified at proposed borrow pit locations (Figure 9.2), although a stone and turf bank (30), part of a larger site of local importance, lies within 50m of Borrow Pit 1.

### **Character of Cultural Heritage resource**

#### **Proposed windfarm area (Figure 9.1)**

##### *Medieval or Later Rural Settlement (MoLRS) Sites*

- 9.60 Four small farmsteads (3, 7, 9 and 11) are depicted on early 19th century maps<sup>10, 11</sup>. All four appear on Langlands's (1801) and Thomson's (1832) maps, suggesting that they are of at least 18th century date. The Ordnance Survey 1st Edition (1870) also depicts the four farmsteads. Beinnbheac (3) being denoted as a ruin and the other three (7, 9 and 11) are shown as roofed. A series of field boundaries (6 and 10) lie close to the two farmsteads (7 and 9) and it is likely that these once defined a series of fields associated with the two farms.
- 9.61 The remains of three shieling huts (2) survive on the banks of Abhainn Laoigh and a group of ten shieling huts (4) survives on the southern slopes of Beinn Bhreac, north of Loch a Churin.. A possible shieling or enclosure (1) along the Narachan Burn is depicted on the Ordnance Survey 2001 (1:25,000) Edition map, but was not located by the field survey due to high vegetation in the area.
- 9.62 A possible sheepfold (5) was recorded by field survey on the southwest-facing slope of Beinn Bhreac.

<sup>10</sup> Langlands, G (1801) *This map of Argyllshire*

<sup>11</sup> Thomson, J (1832) *Northern Part of Argyll Shire, South Part*

<sup>9</sup> PAN 45, p27

9.63 The denuded remains of a small, grassed-over building (8) were recorded by field survey on the northeast slopes of Cnoc Iarunn, close to the historic farmstead at Gortanclouche (7). The indeterminate remains make it hard to date this feature or to be certain of its nature, although it is most likely to be remains of a small building, associated with the farmstead (7).

#### Miscellaneous

9.64 A disused quarry (12) is depicted on the 2001 Ordnance Survey 1:25,000 map. The quarry does not appear on the Ordnance Survey 1<sup>st</sup> Edition<sup>12</sup> or 2<sup>nd</sup> Edition<sup>13</sup> maps and it is likely to be of 20<sup>th</sup> century date, probably related to the construction and/or maintenance of the public road.

9.65 Aerial Photographs<sup>14</sup> show an extensive network of drainage channels across the higher moorland within the turbine area indicating that land improvement initiatives, most likely an attempt to improve grazing conditions, have taken place on the hillside in relatively recent times.

#### Proposed site access road corridor (Figure 9.2)

##### Prehistoric sites

9.66 The NMRS and SMR record the presence of a standing stone (17) just north of Ballochroy Burn. Standing stones are difficult to date but are principally associated with the Late Neolithic to Bronze Age periods. There is a possible association between this site and the group of standing stones to the north of Ballochroy (175).

##### Medieval or Later Rural Settlement

9.67 The majority of sites present within the 100m wide site access road study corridor are associated with medieval or later agricultural activity.

9.68 A mill (13) is first depicted at Ballochroy on Langlands map<sup>15</sup>. The mill, annotated as 'corn mill', is later shown on the later Ordnance Survey map<sup>16</sup> (1873) within a small township at Ballochroy at the mouth of the Ballochroy Burn, which provided power for the corn mill. The ruined remains of the corn mill and other associated structures are still present to the south of the Ballochroy Burn. Two other buildings, depicted on the Ordnance Survey 1st Edition map (1873) to the north of the burn, are now occupied as private houses.

9.69 Two farmsteads (15 and 24) are shown on the Ordnance Survey 1st Edition map (1873 and 1870 respectively). Both are depicted as unroofed suggesting that they had been abandoned prior to the late-19th century. The remains of one of the farmsteads (15) still survive, within a forestry plantation immediately north of Ballochroy Burn. No upstanding remains of the second farmstead (24) survive.

9.70 A former head-dyke (16), originally defining the eastern extent of Ballochroy, crosses the access road corridor. The former head dyke has been superseded, first by a dry-stone wall and subsequently a post and wire fence. It clearly still acts as a land ownership boundary. A well-preserved dry-stone wall (26) shown on the Ordnance Survey 1st Edition map<sup>17</sup> and part of the post-improvement field system that now surrounds Minen Cottage is a similar land ownership boundary.

9.71 A number of former field boundaries (22, 23, 28, 29 and 30) are located along the Ballochroy Glen forming a series of irregular fields or enclosures associated with farmsteads (Ballochroy (15), Galcantarry (NR75SW 17) and Minen (NR75SE 12). Faint traces of former rig and furrow cultivation (25) are visible to the west of Minen Cottage. The farmsteads at Galcantarry and Minen are first

depicted on Roy's Military Survey map indicating that they are of at least mid-18th century date and the former field boundaries and rig and furrow are probable remnants of pre-improvement field systems associated with these settlements.

9.72 Two short sections of former track (21 and 27) were identified immediately north of the present farm track; these follow the alignment of a track depicted on Ordnance Survey 1st Edition maps (1870 & 1873).

9.73 The NMRS and SMR record the presence of two possible shieling huts (31) on the northern bank of the Abhainn Laoigh. No traces of these structures were found during field survey, the area now being part of a commercial forestry plantation. It is possible that deep ploughing, carried out prior to forestry plantation, has destroyed any remains.

#### Miscellaneous

9.74 The remains of an 18th - 19th century bridge (14) survive crossing the Ballochroy Burn. The bridge is shown on the Ordnance Survey 1st Edition map<sup>18</sup> forming part of track leading from the settlement at Ballochroy on the north side of the burn to Kilmichael on the south side.

9.75 Two culverts (18 and 19) form part of the current farm access track.

#### Archaeological Potential within the Proposed Windfarm Area

9.76 Twelve sites of cultural heritage interest have been identified within the proposed windfarm area. These all relate to medieval or later rural activity and land-use within the proposed windfarm area has changed little over the last 200 years, predominantly being used as rough pasture.

9.77 In the wider landscape around the proposed windfarm there are other recorded sites of medieval or later farmsteads, shielings and enclosures and remains of earlier periods, including duns and cist burials, suggesting a long history of settlement. The concentration of known sites within and around the proposed windfarm suggests a focus of human activities around watercourses and along the coastal fringes.

9.78 Taking into account the number and distribution of sites identified within the proposed windfarm area and the evidence of the historic and current land use in the area, it is considered that the potential, of as yet undetected buried remains, particularly of medieval or earlier date, surviving within the proposed windfarm area is low.

9.79 Taking into account the limited land-take required by the proposed development, the probability of encountering hitherto undiscovered sites of archaeological significance during the course of the construction work is considered to be low.

#### Archaeological Potential of the Proposed Site Access Road Corridor

9.80 The proposed site access road for the windfarm runs along Ballochroy Glen following the route of an existing tarmac farm access track to Minen. Thereafter the proposed access track follows a roughly metalled farm/forestry track as far as Loch Garasdale. Beyond this a new track would be required across open moorland at Cnoc Laoighscan and through an area of mature commercial conifer plantation at Cnoc an t-Samhlaidh.

9.81 Nineteen sites of cultural heritage interest have been identified by this study within the 100m wide proposed access road study corridor. These sites and features are predominantly related to medieval or later rural activity and settlement. One site of potential prehistoric date, a standing stone (17) has been recorded within the access road corridor.

<sup>12</sup> Ordnance Survey 1st Edition (1870) Argyllshire Sheet CCXXXVI six inches to one mile

<sup>13</sup> Ordnance Survey 2nd Edition (1900) Argyllshire Sheet CCXXXVI NW & NE six inches to one mile

<sup>14</sup> Aerial photograph 106G/UK/0046, Frame 3151. Taken on the 04/05/046. 1:10000 scale.

<sup>15</sup> Langlands, G (1801) *This map of Argyllshire*

<sup>16</sup> Ordnance Survey 1st Edition (1873) Argyllshire Sheet CCXXII six inches to one mile

<sup>17</sup> Ordnance Survey 1st Edition (1870) Argyllshire CCXXXVI six inches to one mile

<sup>18</sup> Ordnance Survey 1st Edition (1873) Argyllshire CCXXII six inches to one mile

- 9.82 The NMRS and SMR record the presence of several sites of prehistoric date within 1km of the proposed access road route, with a notable concentration along Ballochroy Glen. Three standing stones and an associated cist burial (175) are present at Ballochroy approximately 600m from the western end of the access road and several cup marked stones of early prehistoric date (NR75SW 5-6, and NR75SW 44) are present within 1km of the proposed access road, and in close proximity to the standing stones at Ballochroy (175). These sites are most likely to be of early to mid Bronze Age in date. Evidence for later prehistoric activity in the area includes the remains of a fort (NR75SW 8) at Ballochroy, approximately 500m to the north of the proposed access road, and a dun (3184) at Minen, approximately 150m to the north of the proposed access road.
- 9.83 Examination of historical maps shows permanent settlement along Ballochroy Glen from at least the mid-17th century. Blaeu's map <sup>19</sup>Atlas of Scotland 1654 depicts a settlement or 'fermtoun' at Kilmicheal (NR75SW 14) approximately 200m to the south of the proposed access track during the 17th century. Later historical maps, including those of Roy<sup>20</sup> and Langland,<sup>21</sup> show several settlements along the Ballochroy Glen including farmsteads at Canmore (NNR75SW 18 & 19), 'Meanen' (or Minen: NR75SE 12) and 'Brantians' known now as Glancantarry (NR75SW 17). Roy's map shows the settlements at Kilmicheal and Minen surrounded by areas of cultivation and field surveys identified the remains of several fields, defined by stone and turf banks, around Minen that are part of a relict farming landscape which survives along the Ballochroy Glen. Other features of this relict landscape are also present close to the proposed access road route, including two kilns on the banks of Ballochroy burn (NR75SE 6) approximately 150m to the south of the access road route, and other buildings (NR75SE 14) at Minen.
- 9.84 There has been little change to the landscape along the western half of the proposed access road (Ballochroy Glen) the area having been continuously used as pasture farmland. The eastern half of the proposed access road, however, crosses an upland landscape of moorland that is today extensively covered in mature commercial forestry.
- 9.85 Taking into account the number of prehistoric and possible early historic sites recorded at the western end of the proposed access road, it is considered that the potential of as yet undetected buried remains surviving along the section between Ballochroy and Minen is moderate.
- 9.86 Due to the presence of extensive modern commercial forestry at the eastern end of the proposed access road route (beyond Loch Garasdale) it is judged that it is less likely buried remains survive along that section and the potential for the presence of archaeological remains here is considered to be low.

#### External Receptors

- 9.87 Based on analysis of the ZTV there are nine Scheduled Monuments, three Category A Listed Buildings, seventeen Category B Listed Buildings and seven C(S) Listed Buildings within 15km of the proposed windfarm and from which there are theoretical views of the wind turbines. These sites are listed in Appendix 9C and are depicted on Figure 9.3.

### Assessment of Effects

#### Construction Effects

- 9.88 Any ground breaking activities associated with the construction of the proposed windfarm and site access road (such as for turbine bases and crane hardstandings, access tracks, cable routes, compounds etc) have the potential to disturb or destroy features of cultural heritage interest. The creation or extension of borrow pits to extract construction material could have similar direct and adverse effects. Other construction activities, such as vehicle movements, soil and overburden

<sup>19</sup> Blaeu, J (1654) *Cantyna - Kintyre*

<sup>20</sup> Roy, W (1747-55) *Military Survey map of Scotland*

<sup>21</sup> Langlands, G (1801) *This map of Argyllshire*

storage and landscaping also have the potential to cause direct, permanent and irreversible effects on the cultural heritage resource.

- 9.89 The assessment of effects has been undertaken with reference to the windfarm layout depicted in Figure 9.1 and the site access road route shown on Figure 9.2. Both the windfarm layout and the access road route have been designed to avoid archaeological constraints and, as such, contain embedded mitigation wherever possible.

#### Operational Effects

- 9.90 The presence of windfarm features can have indirect effects on the setting of cultural heritage sites both within the windfarm area and in the wider landscape. Wind turbines and to a lesser extent, anemometer masts, have the potential to cause indirect visual effects over a wide area. In particular, there is potential for the turbines to be present in views of and from SMs and Listed Buildings in the near vicinity of the development.
- 9.91 Analysis of the ZTV indicates that there would be theoretical visibility of the turbines from a number of the sites within the 15km study radius but this does not take into account the mitigating effects provided by screening from woodland, built features or local topography. In fact, the visibility of the proposed windfarm from cultural heritage sites in the surrounding landscape would largely be well constrained by the extensive commercial forestry surrounding the site. Detectable indirect visual effects on the settings of cultural heritage receptors are largely confined to those SMs and Listed Buildings that lie within 5km of the proposed turbines, in particular those receptors which lie on the west coast of the Isle of Arran, one of the few locations from which there would be un-obscured views of the proposed turbines.

#### Proposed Windfarm Area

#### Direct Effects

- 9.92 The assessment of effects was carried out with reference to the windfarm layout depicted on Figure 9.1. Using the criteria detailed above (9.41 - 9.43; Table 9.1), Table 9.4 lists the predicted indirect effects of the proposed windfarm area on the cultural heritage sites identified within the development area.
- 9.93 There are no predicted direct effects upon any of the cultural heritage features identified within the proposed windfarm area.

**Table 9.4 - Summary of Effects on Sites within the Proposed Windfarm Area**

No	Site	Effect Type	Site Importance	Magnitude of Effect	Significance of Effect
1	Narachan Burn, shieling hut	None	Unknown (Local)	None	None
2	Gleann Laoigh Shielings	None	Local	None	None
3	Beinnbhreac	None	Local	None	None
4	Sheilings	None	Local	None	None
5	Sheepfold (possible)	None	Local	None	None
6	Field bank	None	Lesser	None	None
7	Gotanclouche (building, enclosure, field boundary)	None	Local	None	None
8	Cairn (possible) Builing (possible)	None	Unknown (Local)	None	None



No	Site	Effect Type	Site Importance	Magnitude of Effect	Significance of Effect
9	Gortan an t-Sailleir (buildings, enclosures)	None	Local	None	None
10	Field Bank	None	Lesser	None	None
11	Deargalli (building, enclosure)	None	Local	None	None
12	Quarry	None	Lesser	None	None

### Indirect Effects

9.94 Predicted indirect visual effects on designated and non-designated sites, within 15km of the proposed development area have been assessed using the blade tip ZTV and the criteria set out in Sections 9.39 – 9.51 and Tables 9.1 – 9.3. The potential effects have been assessed using professional judgement, based on analysis of the ZTV, taking into account the distance of the assessed site from the proposed development and the number of turbines visible.

9.95 Scheduled Monuments, Category A, B and C(S) Listed Buildings and Conservation Areas have been assessed for potentially significant adverse effects arising from the introduction of the proposed wind turbines into the landscape. Appendix 9C lists those Scheduled Monuments, Listed Buildings and Conservation Areas from which there would be a theoretical view of the Development.

9.96 Those sites where there is judged to be no effect on their settings, are assessed as such, either because their settings are considered to be limited to their immediate environs and are unaffected by the windfarm, or they are considered not to have long distance landscape views as an essential element of their settings.

9.97 No significant effects are predicted on any of the external receptors identified by this study.

9.98 Historic Scotland specifically requested that the effect on the setting of Category A Listed Cour House (18360) be assessed. The ZTV indicates that from Cour House there would be a view of the blade tips of three of the proposed turbines. The effect on this site is summarised in Table 9.5 and discussed below.

**Table 9.5 - Summary of Effects on Settings of External Receptors**

No	Site	Effect Type	Site Importance	Magnitude of Effect	Significance of Effect
18360	Cour House (Category A Listed)	Indirect	National	Low	Minor

### Cour House

9.99 Category A Listed Cour House (18360), built in the 1920s, is an early example of work by the renowned architect, Oliver Hill. Historic Scotland's statutory listing of the building, states it is a powerful example of Arts and Craft architecture, and it is noted that the entrance elevation, gives the impression that the house is rising from the ground, while the rear elevation has a monumental aspect over the Kilbrannan Sound. The house is also listed for its notable interior design.

9.100 The house is privately owned and sits close to the shore with open views to the east over the Kilbrannan Sound towards the north-west coast of Arran. There are no direct views of the house from the public road the main elevation of which faces north west. An existing overhead electricity

transmission line, supported on pylons, runs along the hillside on the west side of the public road that passes the house. The house is visible from the water in Kilbrannan Sound.

9.101 Associated with the house are a boathouse, a farm and farm manager's house, a generator house and a cottage. These other buildings are not listed and, while they form part of the essential setting for Cour House, they are of no great antiquity.

9.102 The ZTV shows that from Cour House there would be theoretical views of three turbine blade tips; although from the grounds around the house there would be no visibility of any turbines. The main front elevation of the house faces north west, away from the turbines, and from the rear terrace there are extensive views out over the Kilbrannan Sound. There would be no view of the proposed turbines from either principal elevation of the house. However, there would be views from on the water in Kilbrannan Sound that would include Cour House with the tips of the proposed turbines in the background, beyond the skyline and at a higher level.

9.103 Taking into account the limited locations from which turbines would be visible, the effect of the on the setting of Cour House has been judged to be of low magnitude and hence of minor significance.

### Proposed Access Road Corridor and Borrow Pits

#### Direct Effects

9.104 The assessment of effects was carried out with reference to the access road route depicted on Figure 9.2. Using the criteria detailed above (9.41 - 9.43; Table 9.1), Table 9.6 lists the predicted direct effects of the proposed site access road on the cultural heritage sites identified along the 100m wide study corridor.

9.105 Chapter 3 provides details on the construction of the access track. The running width of the road would be approximately 6m wide, with an additional shoulder at each side of the track measuring approximately 0.5m wide. A batter at 45 degree slope would also be required, typically resulting in approximately 0.6m of batter at either side of the track. Therefore the total track land-take would equate to a width of around 10m-12m.

9.106 The access road would follow the existing access tracks as far as feasible, with a new access junction off the A83, to the north of Ballochroy. New tracks would be required between Loch Garasdale and the windfarm.

**Table 9.6 - Summary of Effects on Sites within the Proposed Access Road Corridor**

No	Site	Effect Type	Site Importance	Magnitude of Effect	Significance of Effect
13	Ballochroy, township	None	Local	None	None
14	Ballochroy, bridge	None	Local	None	None
15	Ballochroy, farmstead	None	Local	None	None
16	Head-dyke (former)	Direct	Lesser	Imperceptible	Negligible
17	Ballochroy, standing stone	None	Unknown (Local)	None	None
18	Stone culvert	Direct	Lesser	High	Minor
19	Stone culvert	None	Lesser	None	None
20	Building	None	Unknown / Local	None	None
21	Former track, field boundaries	Direct	Lesser	Imperceptible	Negligible
22	Field boundary, turf and stone bank	Direct	Lesser	Imperceptible	Negligible

No	Site	Effect Type	Site Importance	Magnitude of Effect	Significance of Effect
	(possible)				
23	Field boundary , turf and stone bank (possible)	Direct	Lesser	Imperceptible	Negligible
24	Ballochroy farmstead	None	Unknown (Local)	None	None
25	Former rig and furrow cultivation (possible)	Direct	Lesser	Imperceptible	Negligible
26	Field boundary, dry-stone wall	Direct	Lesser	Imperceptible	Negligible
27	Former track	Direct	Lesser	Imperceptible	Negligible
28	Field boundaries, stone and turf bank	Direct	Lesser	Imperceptible	Negligible
29	Minen Farmstead, field boundaries, stone and turf banks, field system	Direct	Local	Imperceptible	Negligible
30	Minen Farmstead, field boundaries, stone and turf banks, field system	Direct	Local	Imperceptible	Negligible
31	Gleaan Laoigh, shieling huts	Unknown	Unknown (Local)	Unknown	Unknown

9.107 Direct permanent and irreversible effects are predicted in relation to eleven sites along the access track route.

9.108 Parts of medieval or later field systems would be disrupted by the passage of the access track, although the buildings forming the focal points of these settlements would be avoided and would not be affected.

9.109 Proposed widening of the existing track and construction of a short section of new access track would affect a head-dyke (16), two former tracks and associated field boundaries (21 and 27), an area of possible former rig and furrow cultivation (25) and a number of former field banks (22, 23, 26, 28, 29 and 30). Eight of these sites (16, 22, 23, 26, 27, 28, 29 and 30) have already been truncated by the passage of the existing farm track from Ballochroy to Minen and construction works associated with upgrading the existing track will result in only partial disturbance of the features. These impacts would not materially alter the overall character of the individual features substantially alter the surviving historic landscape of which the features form elements. It is thus considered that the significance of effect in each case will be imperceptible and of no more than minor significance.

9.110 Upgrading of the existing access track at Ballochroy would directly affect a stone-lined culvert (18) which is an integral part of the existing farm track. The effect would arise from the widening of the existing access track requiring upgrading (or replacement) of the existing culvert. The effect would be of high magnitude and minor significance.

9.111 There are no direct effects predicted arising from the opening of three proposed borrow pits along the external access track (BP1-3: Figure 9.2).

#### Uncertain Effects

9.112 The predicted effect of the proposed access road on the former shieling huts (31) at Gleaan Laoigh is uncertain. The site lies within modern commercial forestry and although the shieling huts could not

be located during the field survey (possibly having been destroyed by forestry ploughing) remains may still survive in the area.

9.113 In addition to the site specific predictions, stated above, ground-disturbing excavations associated with the construction of the proposed access road could have an adverse effect on any hitherto unrecorded, buried remains present in affected areas. This would particularly be the case where new access road sections are required and most likely around Ballochroy where the new access junction would be created and where there is evidence nearby of prehistoric activity.

9.114 Taking into account the limited extent of the proposed disturbance generated by the construction of the access track the likelihood of encountering remains of archaeological significance is considered to be moderate to low.

#### Indirect Effects

9.115 Using the criteria set out above (Sections 9.39 – 9.51 and Tables 9.1 – 9.3) Table 9.7 presents a summary of the effects on the settings of receptors with statutory designations in proximity of the proposed site access.

**Table 9.7 - Summary of Effects on Settings of Key Receptors**

No	Site	Effect Type	Site Importance	Magnitude of Effect	Significance of Effect
175	Ballochroy Standing Stones (SM)	Indirect	National	Imperceptible	Minor
3184	An Dunan Dun (SM)	Indirect	National	Low	Minor

#### Ballochroy Standing Stones (175)

9.116 This scheduled monument lies approximately 600m to the northwest of the access road and its junction with the A83 on a low hill overlooking the coast. The site, which includes a group of three vertical standing stones, is one of the earliest and most famous examples of a megalithic 'observatory' as put forward by Alexander Thoms during the 1950s who suggested that Prehistoric Britons used features on distant horizons as astronomical foresights in order to observe and record the motions of the sun and moon<sup>22</sup>. The site played a significance role in the controversies surrounding Thom's theories. A Bronze Age burial cist lies a short distance (45m) away to the south-west of the stones and may be associated with them. From the site there are extensive open views to the west and southwest across the coast towards the Paps of Jura and the row of stones points south-westward towards a small island called Cara Island, about 12km away. It has been suggested that these south-westwards views are linked with the summer and winter solstices and are an important feature of the site.

9.117 The site lies immediately to the north-east of a large modern concrete and corrugated-iron cattle byre and overhead electricity cables run nearby. The proposed access road would run across open pasture grassland north of Ballochroy at a lower elevation than the scheduled site and views of the access road from the standing stones would be restricted by the local intervening topography. Views of the distant horizon would be entirely unaffected by the presence of the new access road and junction.

<sup>22</sup> Thom A 1955 'A statistical examination of the megalithic sites in Britain' Journal of the Royal Statistical Society, Series A (General) 118 part 3, 275-295

9.118 Taking into account the present setting of the monument and the restricted view of the access road, the effect on the setting of this site would be neutral in character, of imperceptible magnitude and minor significance.

#### **An Dunan Dun (3184)**

9.119 This scheduled site comprises the poorly preserved remains of a dun occupying a rocky knoll immediately southwest of the ruins of Minen farmstead (NR75SE 12). All that survives of the dun is the remains of a wall encircling the lower flanks of the knoll. In the interior of the Dun are the remains of a stone bank which appear to be of a later date than the Dun itself. The dun lies in the upper reaches of Ballchroy Glen in open rough pasture and there are open views all around but which are restricted to the near distance by the topography. To the northeast of the dun and only approximately 20m from it are the ruined remains of Minen Farmstead which is currently used as a sheep barn and sheepfold. The present farm track, leading to Cnoc Laoighscan, passes immediately to the north of the site.

9.120 The existing track which runs up the glen would require upgrading and a new section of access road would be constructed approximately 400m to the south of the dun.

9.121 It is considered that the presence of the additional section of access road would not have a substantial adverse effect on the site's setting given that the character of the landscape in which the dun lies has been modified by the introduction in the 19th century of a small farmstead and in the 20th century by the present farm/forestry track. The proposed track upgrading and addition of a short section of new track would represent a low magnitude change to the baseline setting, resulting in an effect of minor significance.

#### **Decommissioning Effects**

9.122 There would be no significant adverse effects on cultural heritage interests during decommissioning of the windfarm, presuming that the same road infrastructure is used for the dismantling and removal of the turbines. The effect of removing the turbines and the dismantlement of the associated infrastructure would actually be beneficial, returning the settings of those sites affected by the presence of the turbines to the equivalent of their predevelopment situation.

#### **Cumulative Effects**

9.123 Cumulative effects occur from changes to the baseline current setting of cultural heritage resource caused by the proposed development, in conjunction with other developments that occurred in the past, present or likely to occur to the foreseeable future<sup>23</sup>.

9.124 There are four additional windfarms within 20km of the proposed Cour development. These are Deucheran Hill (nine turbines), Beinn an Tuirc (46 turbines) and Beinn an Tuirc II (19 turbines), and Gigha Community wind farm (3 turbines). Deucheran Hill is the closest to the Cour proposal, being approximately 4.5km to the south west. The Landscape and Visual Assessment (Chapter 8) contains a number of photomontage visualisations from agreed viewpoints which show the Cour development in association with other wind farms considered by the cumulative assessment. A number of these are relevant to the consideration of cumulative effect on cultural heritage interests and these are referenced below, where appropriate.

9.125 Viewshed analysis of the wind farm ZTV model has shown that there are a limited number of cultural heritage sites from which there would be views of the proposed turbines (Figure 9.3; Appendix 9C; above Sections 9.94 – 9.103). From this analysis it is determined that there would be no significant indirect effects on the settings of any of those cultural heritage identified as having a view of the Cour turbines.

9.126 Historic Scotland raised particular concerns over the setting of Category A Listed Cour House (18360). This listed building lies in Cour Bay close to the sea and largely screened from the Cour development by intervening micro-topography (see Sections 9.99 – 9.103). Examination of the cumulative ZTVs (Figure 5.47, 48, 51 and 53) shows that, from Cour House, there would be no cumulative visibility of Cour wind farm with any of the other four wind farms present within 20km. There is therefore no cumulative effect on Cour House.

9.127 Viewpoints 1 and 2, from Catacol and Pirnmill on Arran respectively, where there are listed buildings on the shore (7637, 13479, 13486 and 49535) both Cour and Deucheran Hill windfarms would be visible in views westwards as two separate and discrete windfarms; the Cour turbines being closer than those of Deucheran Hill. The effect on the setting of these listed buildings is individually assessed as being of negligible significance (Appendix 9C). Pirnmill is more than 8km from the Cour turbines and Catacol more than 11km distant. Examination of the cumulative ZTVs shows that from Catacol, from Pirnmill and from Imachar on Arran there would be theoretical visibility of the turbines of three windfarms (Deucheran Hill, Beinn and Tuirc and Beinn an Tuirc II). Viewpoints 1 and 2 and viewpoint 3, from Machrie Golf Club, show that the Beinn an Tuirc turbines would be fairly well screened from view and the cumulative effect would arise from the Cour turbines in combination with those of Deucheran Hill. Taking into account the separation distance the cumulative effect on the settings of the sites along the Arran coast both individually and collectively is judged to be no more significant than the view of the Cour turbines alone. Therefore, a cumulative effect of negligible significance is predicted.

9.128 Consideration of the other sites that fall within the Cour ZTV and comparison with the cumulative ZTVs shows that from the north there is theoretical visibility from two sites (212 and 3847) of Cour in combination with Deucheran Hill. However, the sites to the north lie either in or on the north side of commercial forestry (212, 3184 and 3817) that would screen views of either windfarm entirely. One site (2491) lies on the coast and would have theoretical cumulative visibility of Cour and Gigha, but not in the same view, and it is likely that forestry on the Kintyre hills would screen the view of the Cour turbines. Of those sites that lie to the south east (3177 and 3649) that at Carradale (3177) would have theoretical visibility of Cour and Beinn an Tuirc, but not in the same views; Cour being to the north northwest and Beinn an Tuirc to the south west. Taking into account the separation distances and the probable screening from forestry on the hills, the cumulative effect on the settings of the sites to the north and south west, both individually and collectively, is judged to be of negligible significance.

9.129 Examination of the cumulative ZTVs shows that the group of sites around Skipness (Figure 9.3) would have theoretical visibility of Cour windfarm in combination with Deucheran Hill and with Beinn an Tuirc and Beinn an Tuirc II and in the same view, with Cour being in the foreground of the other three. However, this location is almost 15km from the Cour windfarm and the effect on their settings from Cour alone is judged to be of negligible significance. Taking into account the separation distance the cumulative effect on the settings of the sites at Skipness, both individually and collectively, is judged to be no more significant than the view of the Cour turbines alone. Therefore, a cumulative effect of negligible significance is predicted.

9.130 The cumulative assessment concludes that the addition of Cour windfarm to a landscape containing windfarms at Deucheran Hill, Beinn an Tuirc, Beinn an Tuirc II and Gigha, would not significantly alter the baseline setting of cultural heritage resources identified within this study.

#### **Mitigation**

#### **Design Measures**

9.131 The layout of the windfarm, the positioning of turbines and the route of the external access road have been arrived at through a series of iterative stages to develop the best layout within the context of all environmental and technical constraints. The results of the cultural heritage desk-based assessment and field survey were provided as GIS data, with appropriate stand-off distances identified, to ensure

<sup>23</sup> Guidelines for Landscape and Visual Impact Assessment 2nd Edition (2002, 85)

the preservation of important remains *in situ* and with areas of archaeological potential highlighted as far as could be determined based on the results of the study. No intrusive archaeological investigations have been carried out as part of this assessment. The layout shown on Figure 9.1 and 9.2 therefore embeds mitigation into the siting of the turbines and ancillary development to avoid archaeological constraints wherever possible.

### General Measures

9.132 In accordance with the guidance contained in SPP and PAN 42, the preferred option for mitigation is preservation of important remains *in situ* wherever practicable and by record where preservation is not possible. The mitigation measures presented below take account of this planning guidance and offer various options for recording and ensuring that, where practical, upstanding sites and features are preserved intact in order to retain the surviving historic elements of the landscape.

9.133 All construction phase mitigation measures are subject to the agreement and approval of WoSAS and would be set out in one or more Written Schemes of Investigation (WSI) for the council's approval prior to the commencement of construction works on site. The WSI(s) would include the following elements.

### Specific Measures: Proposed windfarm area

#### Further field survey

9.134 Dense bracken and high grass, present at the time of field survey, restricted the identification of low relief features in the vicinity of a group of at least ten shielings (4) in the vicinity of Turbine 5 (Figure 9.1). The proposed location of Turbine 5 is over 75m from the nearest recorded shieling; however, it is possible that further low relief remains may survive in this area and further field survey at a different time of year would be useful in ensuring that all of the upstanding remains of this site are recorded.

#### Preservation in situ / Fencing off

9.135 Where surviving upstanding features lie in close proximity to development features they would be avoided as far as practicable in order to ensure their preservation *in situ*. Where appropriate, sites would be fenced-off (or otherwise marked out) to prevent accidental damage occurring to the remains during construction activities in their vicinity. One site warrants protection by fencing off:

- A perimeter will be set up around the group of shielings (4) close to Turbine 5 in order to signal their presence and to avoid accidental damage during the installation of the turbine and the associated access track.

#### Watching briefs and excavation

9.136 Any requirement for the archaeological monitoring of works through watching briefs would be agreed in consultation with the Council's archaeological advisors (WoSAS). Watching briefs may be required to allow the identification and recording of any currently unidentified remains of archaeological significance present at proposed development locations. Watching briefs, if required, would be conducted during topsoil removal work in archaeologically sensitive areas to a strategy to be agreed with WoSAS.

9.137 If significant discoveries are made during archaeological monitoring, and preservation *in situ* of any sites or features is not possible, provision would be made for the excavation, where necessary, of any archaeological remains. This provision would include the consequent production of written reports on the findings, with post-excavation analysis and publication of the results of the work, where appropriate.

### Specific Measures: Proposed access road and borrow pits

9.138 The majority of the proposed windfarm access road would make use of an existing farm track running through Ballochroy Glen. The existing road would require upgrading and widening in places and three sections of new access road would be constructed:

- Approximately 150m to create a new junction at the A83 and avoid three private houses at Ballochroy;
- Approximately 800m section of track to avoid residential Minen Cottage and a sheepfold currently in use; and
- Approximately 3.5km section of track across open moorland at Cnoc Laoighscan and through mature commercial forestry at Cnoc an t-Samhlaidh.

9.139 For the most part the proposed access road and the locations of the borrow pits avoid the previously recorded sites and monuments identified from the desk-based assessment and field survey, although the proposed access road would cross directly affect eleven features.

#### Preservation in situ / Fencing off

9.140 Where upstanding features lie in close proximity to the proposed access road and borrow pits they would be avoided as far as practicable in order to ensure their preservation *in situ*. Where appropriate, sites would be marked-out, to a strategy agreed with WoSAS, to prevent accidental damage occurring to the remains during construction activities in their vicinity.

- Disturbance of the dry-stone wall north of the bridge at Ballochroy (14) would be kept to a minimum;
- The main elements of Ballochroy farmstead (15), which lies within an area of woodland, will be marked-out with an appropriate buffer and avoided. Disturbance to the remains of a dry-stone wall (part of the farmstead enclosure) which runs approximately 5m to the south of the existing track would be kept to a minimum;
- The recorded location of a building (20) and a farmstead (24), taken from the Ordnance Survey 1st Edition maps, would be marked-out with an appropriate buffer in order to signal the presence of archaeologically sensitive remains and to avoid damage occurring to any remains that may be present;
- Disturbance to the remains of a former head-dyke (16) and a dry-stone wall (26) where they are crossed by the proposed access road would be kept to a minimum. The ends of the walls, where the access track breaches it, would be consolidated following completion of construction works;
- An Dunan Dun (3184) lies 100m north of a new section of access road and would not be directly affected by the proposed construction works. However, the site is a Scheduled Monument and sits close to the proposed working area. The scheduled area would be marked-off with an appropriate buffer in order to signal its presence and to avoid damage occurring to it during construction work, and
- An old field boundary (30) that lies within 50m of borrow pit BP 1 would be marked-out with an appropriate buffer in order to signal its presence and to avoid damage occurring to it.

#### Recording

9.141 Where a site cannot be preserved in its original condition it would be recorded prior to its loss, to a standard to be agreed with WoSAS.

- A photographic record of a stone lined culvert (18) would be made prior to the commencement of road widening construction works in that area.

#### Further Field Survey

9.142 A further field survey would be carried out following tree felling at the southern end of the access road in order to locate and record any surviving remains of two former shielings (31). If remains are

discovered, their location would be marked-off with an appropriate buffer in order to signal its presence and to avoid damage occurring to them during construction work.

#### *Watching briefs and excavation*

9.143 Any requirements for archaeological mitigation through pre-construction archaeological evaluation or construction phase monitoring of works through watching briefs would be agreed in consultation with WoSAS.

9.144 Archaeological monitoring of construction activities would be carried out at the following locations:

- Ballochroy. A watching brief on topsoil removal would be carried out where the new access road junction would be created. This area is close to a SM (175) and other remains (17) of possible prehistoric date.
- Minen. A watching brief on topsoil removal would be carried out where a new section of access road would be created to bypass Minen farmstead. This area is close to a SM (3184) of possible prehistoric date.

9.145 If significant discoveries are made during archaeological monitoring and preservation *in situ* of any sites or features is not possible provision would be made for the excavation, where necessary, of any archaeological remains encountered. This provision would include the consequent production of written reports on the findings, with post-excavation analyses and publication of the results of the works, where appropriate.

#### **Construction guidelines**

9.146 Written guidelines would be issued on behalf of SSE Renewables Ltd for use by all construction contractors, outlining the need to avoid causing unnecessary damage to known archaeological sites. That document will contain arrangements for calling upon retained professional archaeological support in the event that buried remains of potential archaeological interest (such as building remains, human remains, artefacts, etc) should be discovered in areas not subject to archaeological monitoring. The guidance would make clear the legal responsibilities placed upon those who disturb artefacts or human remains.

#### **Operation**

9.147 There are no predicted significant effects on any external receptors. There is, therefore no, requirement for any mitigation in respect of sites outwith the proposed windfarm.

9.148 If requested by either Historic Scotland or WoSAS it may be possible to mitigate the visual impact of the new access road junction with the A83 by the introduction of planting to screen the junction from view from the standing stones at Ballochroy (175).

#### **Decommissioning**

9.149 No significant effects are predicted during the decommissioning of the windfarm, presuming that the same road infrastructure is used for the dismantling and removal of the built features of the windfarm.

#### **Residual Effects**

9.150 The completion of the programme of archaeological mitigation works set out above would offset the loss of the archaeological resource that would occur as a result of the construction of the proposed development. Taking the mitigation into account, no significant residual effects are anticipated in relation to cultural heritage resources.

9.151 The development would not have a significant residual effect on the setting of any cultural heritage features outside of the windfarm site. The decommissioning of the windfarm and the removal of the

turbines would return the landscape setting of the receptors in the area to their pre-development position.

### **Summary of Effects**

9.152 Eleven direct effects are predicted for cultural heritage sites along the proposed access road. Two of the affected sites are of local importance and nine are of lesser importance. These sites and the proposed mitigation are summarised below in Table 9.8. The predicted direct effects would each be of imperceptible magnitude and negligible significance, affecting only a small part of each individual site.

9.153 There would be no direct effects on any of the cultural heritage sites within the proposed windfarm area.

**Table 9.8 - Summary of Predicted Direct Effects**

<b>Potential Effects</b>	<b>Pre-Mitigation Effect</b>	<b>Mitigation</b>	<b>Residual Effects</b>
Direct effect on head-dyke (16)	Small sections of the head-dyke would be removed during widening of existing track.  Negligible significance.	Disturbance to head-dyke remains to be kept to a minimum.  Archaeological recording of areas to be disturbed and ends to be consolidated following completion of construction works.	Minor disruption of physical form. Recovery of archaeological information.  Negligible significance.
Direct effect on stone culvert (18)	Culvert would potentially be removed during upgrading of existing track.  Negligible significance.	Photographic record of culvert prior to construction works.	Loss of minor historic structure. Preservation of physical record.  Negligible significance.
Direct effect on former track, field boundaries (21)	Small sections of former track and field boundary will be removed during widening of existing track.  Negligible significance.	Programme of archaeological mitigation works to be described in the WSI.	Minor disruption of physical form. Recovery of archaeological information.  Negligible significance.
Direct effect on field boundary (22)	Small section of field boundary would be removed during widening of existing track.  Negligible significance.	Programme of archaeological mitigation works to be described in the WSI.	Minor disruption of physical form. Recovery of archaeological information.  Negligible significance.
Direct effect of field boundary (23)	Small section of field boundary would be removed during widening of existing track.	Programme of archaeological mitigation works to be described in the	Minor disruption of physical form. Recovery of archaeological information.

Potential Effects	Pre-Mitigation Effect	Mitigation	Residual Effects
	Negligible significance.	WSI.	Negligible significance.
Direct effect on former rig and furrow cultivation (25)	Small area of former rig and furrow cultivation potentially disturbed during widening of existing track.  Negligible significance.	Programme of archaeological mitigation works to be described in the WSI.	Minor disruption of physical form. Recovery of archaeological information.  Negligible significance.
Direct effect on field boundary, dry stone wall (26)	Small sections of dry stone wall would potentially be removed during widening of existing track.  Negligible significance.	Disturbance to head-dyke remains to be kept to a minimum.  Archaeological recording of areas to be disturbed and ends to be consolidated following completion of construction works.	Minor disruption of physical form. Recovery of archaeological information.  Negligible significance.
Direct effect on former track (27)	Section of former track potentially removed during construction of new section of access road.  Negligible significance.	Programme of archaeological mitigation works to be described in the WSI.	Minor disruption of physical form. Recovery of archaeological information.  Negligible significance.
Direct effect on field boundary (28)	Sections of former field boundary potentially removed during construction of new section of access road.  Negligible significance.	Programme of archaeological mitigation works to be described in the WSI	Minor disruption of physical form. Recovery of archaeological information.  Negligible significance.
Direct effect on field boundaries (29)	Small sections of former field boundaries removed during construction of new section of access road.  Negligible significance.	Programme of archaeological mitigation works to be described in the WSI.	Minor disruption of physical form. Recovery of archaeological information.  Negligible significance.
Direct effect on field boundaries (30)	Small sections of former field boundaries potentially removed during construction of new section of access road.  Negligible significance.	Programme of archaeological mitigation works to be described in the WSI.	Minor disruption of physical form. Recovery of archaeological information.  Negligible significance.

9.154 One external receptor, the category A listed Cour House (18360), would receive an indirect visual effect on its setting of low magnitude and minor significance. The effect would be long term but ultimately temporary in nature, lasting for the duration of the lifetime of the windfarm and removed upon decommissioning and removal of the wind turbines. A residual effect on the setting of the site

of negligible significance is predicted as no part of the development would permanently affect the site's current setting.

### **Statement of Significance**

9.155 Twelve sites of cultural heritage interest have been identified within the proposed windfarm area boundary (Figure 9.1) and nineteen sites have been recorded within the proposed site access road corridor (Figure 9.2).

9.156 There are no sites of national or regional importance within the proposed development area. Eleven sites are of local importance, thirteen are of lesser importance and six are of unknown (but no more than local) importance.

9.157 No key receptors are predicted to receive a significant adverse indirect effect on their setting arising from the presence of the windfarm. The proposed windfarm is predicted to have an effect of minor significance on the current setting of the Category A Listed Cour House (18360) due to the proximity of the proposed wind turbines.

9.158 A detailed programme of mitigation works to be carried out during the construction phase would be set out in one or more WSIs and agreed with the local authority in order to offset all and any adverse effects on cultural heritage interests within proposed development areas.

9.159 No significant residual effects are anticipated in relation to cultural heritage interests and the development proposals are considered to conform to the aims of national, regional and local planning policy as regards cultural heritage.

## APPENDIX 9.1: Cultural Heritage Sites and Features within the Proposed Windfarm Area

Site No	Site Name	Site Type	Source	NMRS No/ SMR No	Easting	Northing	Site Descriptions	Site importance
1	Narachan Burn	Shieling; enclosure	Historical maps; Field Survey		17761	64769	A small enclosure is depicted on the Ordnance Survey (2001) 1:25,000 map. It is not shown on earlier maps. Field surveys recorded no upstanding remains, however the structure may have been obscured by dense vegetation in the area or it may have been destroyed by modern forestry practices.	Unknown (Local)
2	Gleann Laoigh	Shieling Huts	NMRS; SMR; Historical maps; Field survey	NR74NE 2 / 12925	1786	6487	The NMRS and SMR record that three stylized rectangular features, annotated as old shielings, are shown on the Ordnance Survey 1980 map but that they are not shown on earlier maps. Field surveys identified the remains of three shielings on the banks of Abhainn Laoigh burn. The first (2a) was located on the south side of the burn at 178663 648764. The shieling is rectangular in plan, aligned northeast to southwest, measures circa 5m long and 3.5m wide, with walls 0.5m high and has a possible entrance in the northwest side. It sits on a small hummock 1m high immediately south of the burn. The second (2b) is located circa 40m northeast of the first at 178702 648785. This structure is very poorly preserved and only visible as a small turf and reed covered rectangular hummock. The structure measures circa 6m by 3m, is aligned northeast to southwest, and is 0.5m high. Occasional large boulders are visible protruding through the turf. The third shieling (2c) lies circa 40m north-northeast of the first, at 178674 648798. This structure is very poorly preserved and survives only as a roughly rectangular hummock covered by dense reeds. The structure measures circa 6m by 3m, is aligned northeast to southwest, and is 0.5m high.	Local
3	Beinbhreac	Buildings, field banks	NMRS; SMR; Field Survey	NR74NE 9 / 45051	1788	6468	Langland's (1801) and Thomson's (1832) maps both depict a farmstead named as 'Benbreak'. The Ordnance Survey 1st Edition (1870) and Ordnance Survey 2nd Edition (1900) depict 'Beinbhreac' as unroofed and is annotated as a ruin. A three-compartment enclosure is depicted on the Ordnance Survey (2001) 1:25,000 map downslope from the remains of 'Beinbhreac'. The site is also recorded in the NMRS. Field survey identified the remains of two buildings and a stone bank. A dry-stone rubble built rectangular building with attached enclosure (3a) at 178823 646797. The building is 18m by 6m externally with walls 0.7m wide standing to a height of 1.5m. There is no discernible entrance, or any window openings in the upstanding walls, although the wall is partially destroyed on the northwest side. The enclosure is circa 15m by 20m with walls 1m high and is cut through by the burn. The remains of a second building with attached enclosure (3b) at 178798 646797. The building is 11m by 4m externally with grassed over stone walls 1m wide and 0.4m high. The enclosure is obscured by dense vegetation, although grass covered banks are visible in places. The enclosure measures circa 15m by 11m (externally) with banks up to 0.4m high. To the northwest of 'Beinbhreac' at 178658 646893 is a turf-covered stone bank (3c) 1m to 1.5m wide and 0.4m to 0.6m high.	Local
4		Shielings	Field Survey		17912	64690	On the southern slopes of Beinn Bhreac lie the remains of at least ten shielings, each defined by a turf and stone bank. 179127 646993 - A rectangular shieling 5m by 2.5m externally with turf-covered stone banks 0.4m high and 0.5m wide. 179120 646946 - A sub-circular shieling 3m in diameter (externally) with turf-covered stone banks 0.2m high and 0.4m wide. 179150 646920 - Two conjoined shielings, built into the hillside, defined by turf-covered banks. One measures 5m by 3m externally with walls 0.4m high spread to 0.7m wide, and the other is 5m by 4m externally with walls 0.7m high spread to 0.8m wide. 178725 646884 - A sub-square shieling 4m by 3m externally with turf-covered stone banks 0.3m high and 0.7m wide. 179123 646881 - A turf-covered rectangular shieling 6m by 4m externally with stone and turf banks 0.4m high and 0.6m wide. There was a possible entrance on the east side. 179114 646870 - A denuded rectangular shieling 5m by 3m externally with turf-covered stone banks 0.2m high and 0.6m wide. 179099 646855 - A sub-rectangular shieling, 5m by 3m externally with turf-covered stone banks 0.6m high and 0.7m wide. 179146 646849 - A denuded turf-covered square shieling 3m by 3m externally with turf-covered stone banks 0.6m high and 0.7m wide. 179124 646846 - A square shieling 5m by 5m externally with turf-covered stone banks 0.5m high and 0.6m wide. At the time of survey the identification of low relief features was constrained by dense bracken and high grass and it is possible that further shielings remain unidentified in the vicinity.	Local
5		Sheepfold (possible)	Field Survey		178447	647008	Field surveys recorded a denuded stone-built circular structure on the southwest-facing slopes of Beinn Bhreac. The structure is 10m in diameter (externally) set within turf-covered stone banks spread to 2m wide and 0.6m high.	Lesser
6		Field Bank	Historical maps; Field		182023	648700	The Ordnance Survey 1st Edition (1870) and 2nd Edition (1900) maps depict an area is divided into three fields. Field survey recorded two fields, mostly demarcated with post and wire fence, although sections of earlier wall	Lesser

Site No	Site Name	Site Type	Source	NMRS No/ SMR No	Easting	Northing	Site Descriptions	Site importance
			Survey				survive in some places. At 182023 648700 the boundary is a low turf-covered stone and turf bank 0.7m wide and 0.3m high, dense vegetation obscured the recognition of the full length. At 182019 648659 the wall is 0.7m wide and 1.5m high. Thick bracken cover obstructed the identification and survey of further sections of wall.	
7	Gortanclouche	Building, enclosure, field boundary	Historical maps; Field Survey		181895	648704	Langland's (1801) and Thomson's (1832) maps depict a farmstead named as 'Gortan'. The Ordnance Survey 1st Edition (1870) map depicts a building with an attached enclosure, named as 'Gortanclouche'. A field boundary is depicted running off the southwest corner of the enclosure, on a west-northwest to east-southeast alignment. The building is not depicted on the Ordnance Survey 2nd Edition (1900) map.  Field survey recorded the remains of an enclosure of which only small sections are visible amidst thick bracken cover. At 181930 648706 the wall is 0.7m wide and 1m high. A turf-covered earthen field bank was recorded at 181933 648708. Only a small section of the bank was visible due to thick bracken in that area, although the line of the feature could be discerned by a line of higher vegetation growth marking the course of the bank. Due to the dense bracken cover, the building could not be located.	Local
8		Structure(possible building remains)	Field Survey		181849	648628	Field Survey recorded the turf-covered remains of a structure situated on an east-facing hill slope with commanding views over Kilbrannan Sound to the Isle of Arran. Sub-rectangular in shape and marked by earth-set stone boulders it measures 4m by 3m and is 0.3m high.	Unknown (Local)
9	Gortan an t-Sailleir	Buildings, enclosures	Historical maps; Field Survey		1819	6472	The Ordnance Survey 1st Edition (1870) map depicts two buildings with attached enclosures named as 'Gortan an t-Sailleir'. Langland's (1801) and Thomson's (1832) earlier maps depict a farmstead in the same location but name it 'Closeburn'. It is probable that the placenames on these maps are inaccurate. Langlands and Thomson depict 'Closeburn' lying south of 'Gortan' (7), suggesting it is 'Gortan an t-Saillier' but depict a further farmstead to the south of 'Closeburn' naming it as 'Gortantaylor'. This probably corresponds to 'Deargalli' (11). The Ordnance Survey (2001) 1:25,000 Edition map names the site as 'Gortan an t-Sailleir'.  Field survey recorded a building and two enclosures relating to the sites depicted on 19 <sup>th</sup> century maps.  The building (9a) at 181863 647131 is circa 15m by 10m externally, with a small byre attached on the east side. The byre is brick built, with a concrete floor and contains three stalls. The main building is stone built with a concrete harle and a brick fireplace in the eastern wall. A corrugated-iron roof and three brick chimneys survive.  The enclosure (9b) at 181833 647149, northwest of the building, was barely visible (particularly the northeastern corner) due to thick bracken cover but, where visible, the wall remains appear to be 0.5m high and c.0.6m wide.  The second enclosure (9c) at 181911 647284 lies north-northeast of the building remains. The enclosure is 20m by 12m externally with turf-covered stone banks 0.5m high and 0.6m wide.	Local
10		Field Bank	Historical maps; Field Survey		181833 to 181589	648071 to 647062	Langland (1801) depicts a series of enclosures on the eastern slopes of Cnoc Iarúinn.  Field surveys recorded a turf-covered stone field bank, varying in size from 0.5m wide by 0.5m high to 1.7m wide by 1m high.	Lesser
11	Deargalli	Building, enclosure	Field Survey		1818	6464	Langland's (1801) and Thomson's (1832) maps depict a farmstead named as 'Gortantaylor'.  The Ordnance Survey 1st Edition (1870) and 2nd Edition (1900) maps depict a building with an attached enclosure and a second enclosure a short way to the southwest. The building is named as 'Deargalli' (11a).  Field surveys recorded two sections of field banks, one of which maybe the remnants of an enclosure shown on the Ordnance Survey 1st Edition map.  A small section of field bank (11a) at 181780 646483, circa. 20m long, 1m wide and 0.5m high, may be the remains of the 'Deargalli' enclosure. The area was covered in dense vegetation at the time of the field visit, restricting thorough survey, and the remains of the building depicted on the Ordnance Survey 1st Edition may still survive.  To the north-northeast of the field bank is a section of turf-covered field bank (11b) at 18146 646293. The bank runs on a north-northeast to south-southwest alignment and is 0.7m wide and 0.5m to 0.3m high. The bank is obscured by dense vegetation and may survive further than has been surveyed.  The Ordnance Survey 1st Edition map (1870) shows the location of small U-shaped enclosure to the southwest of 'Deagalli' enclosure (11a). No upstanding remains of this enclosure were visible during the field survey.	Local
12		Quarry	Historical maps; Field Survey		181895	647066	The Ordnance Survey (2001) 1:25000 map depicts a disused quarry. The quarry does not appear on the Ordnance Survey 1st Edition (1870) or the 2nd Edition (1900).  Field survey recorded a quarry, circa 5m in diameter and circa 3m high.	Lesser



## APPENDIX 9.2: Cultural Heritage Sites and Features along the Proposed Site Access Road Corridor

Site No	Site Name	Site Type	Source	NMRS No/ SMR No	Easting	Northing	Site Descriptions	Site importance
13	Ballochroy	Township	NMRS; SMR; Historical maps; Field survey	NR75SW 31 / 45048	17272	65219	<p>A mill is first depicted on Langlands (1801) map northeast of a settlement annotated as 'Kilmichael'. By the Ordnance Survey 1st Edition map (1873) the mill, annotated as 'corn mill', is surrounded by several other buildings and structures including five roofed buildings, one unroofed building and two enclosures. To the east of the mill a sluice and weir are depicted, together with a further roofed building and two enclosures.</p> <p>The township is recorded in the NMRS and SMR.</p> <p>Field survey identified several ruined buildings lying to the South of Ballochroy Burn and outwith the study corridor. Two further rectangular buildings, both depicted on the Ordnance Survey 1st Edition map (1873) to the north of the burn, still survive. These buildings have undergone some modernisation and form residential homes. A modern house has been constructed immediately to the southeast of these buildings. A single arched stone bridge is present circa 10m Southwest of the occupied buildings. This bridge formed part of the original road that ran through the township, shown on the Ordnance Survey 1st Edition map. The current public road now lies to the west and the bridge is no longer in use. A series of buildings and enclosures depicted to the west of the bridge on the Ordnance Survey 1st Edition map no longer survive as upstanding remains.</p>	Local
14	Ballochroy	Bridge	NMRS; SMR; Historical maps; Field survey	NR75SW 22 / 14555	17284	65213	<p>The NMRS and SMR record a partly ruinous single-arch bridge of rubble masonry, possibly of late 18th or early 19th century date.</p> <p>The Ordnance Survey 1st Edition map (1873) shows a bridge running across the Ballochroy Burn, to the east of Ballochroy Township (13).</p> <p>Field survey recorded that the bridge survives <i>in situ</i>, although the northwest corner has now collapsed. A small section of dry stone wall, 1m high and 0.5m wide, survives attached to the north end of the bridge and probably defines the northeastern edge of a track that originally ran to the bridge.</p>	Local
15	Ballochroy	Farmstead	NMRS; SMR; Historical maps; Field survey	NR75SW 34 / 45046	17323	65205	<p>The Ordnance Survey 1st Edition identified two unroofed buildings with an attached enclosure and a length of curvilinear wall lying on the north bank of Ballochroy Burn.</p> <p>The farmstead is recorded in the NMRS and SMR.</p> <p>Field survey identified the ruined remains of the farmstead now lying within an area of conifer plantation and has been extensively plough damaged prior to forestry plantation. However, the much tumbled and poorly preserved remains of a possible enclosure and associated building, fragments of a wall possibly the remains of a further enclosure or field boundary, and a curvilinear wall still survive.</p> <p>The remains of an enclosure, depicted on the Ordnance survey 1<sup>st</sup> Edition map, are still visible. The enclosure is defined by a ruinous wall 0.8m wide and 0.5m high. Within the enclosure are the possible remains of a rectangular building at NR 73237 52061. This area was covered with dense trees and the exact dimensions of the building could not be recorded but it appears to be roughly 10m long by 6m wide.</p> <p>A further short section of wall, running from NR 73251 52003 to NR 73264 52052 was visible to the South of the possible building. This section of wall was 8m long, 2m wide and 0.2m high. It may be the remains of a possible enclosure or field wall not depicted on the Ordnance Survey 1st Edition map.</p> <p>A much tumbled curvilinear stone wall, as depicted on the Ordnance Survey 1st Edition map, is visible running almost parallel along the north bank of Ballochroy burn. The wall is 2m wide and 0.5m-1m high.</p>	Local
16		Head-dyke (former); dry-stone wall	Historical maps; Field survey		17341	65208	<p>A head-dyke defining the eastern extent of the settlements at Ballochroy and Kilmichael is depicted on the Ordnance Survey 1st Edition map (1873).</p> <p>Field survey identified that the remains of a dry stone wall, 1.2m high and 0.6m wide, survive to the south of the existing farm track following the alignment of the head-dyke. A modern post and wire fence runs along the former alignment of the head-dyke to the north of the farm track; no remains of the head-dyke survive.</p>	Lesser
17	Ballochroy	Standing Stone	NMRS; SMR	NR75SW 11 / 3547	17348	65216	<p>The NMRS and SMR record that an upright stone stands 0.9m high by 1.1m by 0.3m. The records state that the stone does not appear to be broken and is therefore rather short when compared to other standing stones in Kintyre.</p> <p>Field survey did not locate the stone at the quoted NGR. Whilst the area was covered with dense bracken at the time of the survey, this would not have concealed the stone and, thus it is probable that the stone has been moved. Even if the stone had fallen and lay close to its original location, it would have been found during the field survey.</p>	Unknown (Local)
18		Stone culvert	Field survey		173665	652084	Field survey identified a rectangular stone culvert running under the existing farm track.	Lesser
19		Stone culvert/	Field survey		173845	652042	Field survey identified a rectangular stone culvert running under the existing farm track.	Lesser
20		Building	Historical maps		17374	65212	<p>A single roofed building is depicted on the Ordnance Survey 1st Edition map (1873) to the north of a farm track leading from Ballochroy to Minen.</p> <p>Field survey did not identify the building. The area in which the building is recorded on the Ordnance Survey 1st Edition map was covered in dense shrubs and bracken and could not be accessed.</p>	Unknown (Local)
21		Former track, field boundaries	Historical maps; Field survey		17374	65212	<p>A farm track is shown running from Ballochroy to Minen on the Ordnance Survey 1st Edition map (1873). The Ordnance Survey (2001) 1:25,000 map shows a slightly different alignment for the track at 17374 65212, indicating that the track had been re-routed after the mid-19th century.</p> <p>Field survey identified the remains of a short section of former track to the north of Ballochroy Burn, an associated dry</p>	Lesser

Site No	Site Name	Site Type	Source	NMRS No/ SMR No	Easting	Northing	Site Descriptions	Site importance
							stone wall and the remains of two former field boundaries. The track measures 3m wide and is visible as a slight hollow aligned east to west, fording an unnamed burn, and joining the existing farm road. A short section of dry stone wall, 1m wide and 1m high, running from 173847 652100 to 173802 652124, survives as a line of large orthostatic boulders to the south side of the track. To the north of the track are the remains of two dry-stone walls aligned northeast-southwest and running parallel with an unnamed burn. The first wall, to the west of the burn runs from 173871 652125 to 173896 652153; the second wall on the eastern side of the burn runs from 173899 652152 to 173863 N652107. Both walls continue to the northeast, outwith the access track corridor.	
22		Field boundary, stone and turf bank	Field survey		17402	65203	Field survey identified the remains of a sinuous stone and turf bank aligned approximately northeast to southwest. The bank is 1m wide and 0.5m - 1m high. The south end of the bank has been truncated by the existing farm track.	Lesser
23		Field boundary, turf and stone bank (possible)	Aerial Photographs; Field survey		174429 to 174407	651792 to 651762	Field survey identified a line of stone, possibly the remnants of a stone and turf bank or former dry stone wall, aligned northeast to southwest. The feature is very poorly preserved and survives as a line of small stones measuring approximately 0.6m - 0.7m wide and 0.3m - 0.5m high running from 174429 651792 to 174407 651762. The bank continues to the south running down to the northern edge of Ballochroy Burn. There are no visible remains of the feature continuing to the north of the existing farm track; however, the field boundary is visible on aerial photographs, indicating that it continues to the north outside the study area and forms part of a field system to the northwest of the ruined Glacantary Farmstead (NR75SW 17).	Lesser
24	Ballochroy	Farmstead	NMRS; Historical maps	NR75SW 35 / 45045	17455	65179	Examination of the Ordnance Survey 1st Edition map (1873) indicated a small rectangular unroofed building to the north of a farm track and an associated roughly oval shaped enclosure located to the south of the farm track. The NMRS record the farmstead from cartographic sources. Field survey did not identify the farmstead or enclosure. The area in which they are shown on the Ordnance Survey 1st Edition map was covered in dense vegetation at the time of the survey.	Unknown (Local)
25		Former rig and furrow cultivation (possible)	Field survey		17484	65162	The very faint outline of possible former rig and furrow cultivation are visible in two fields to the west of Minen Cottages.	Lesser
26		Field boundary, dry-stone wall	Historic maps; Field survey				A linear field boundary is depicted on the Ordnance Survey 1st Edition map (1870) circa 500m northwest of a settlement at Cour-sheileach. Field surveys identified a well-preserved dry-stone wall, 1.2m high and 0.5m wide, aligned north-northeast to south-southwest. The existing farm track divides the wall into two; the gap being filled by a modern iron gate and cattle grid.	Lesser
27		Former track	Field survey		175201 to 175179	651869 to 651864	Field survey identified the remains of a short section of former track running parallel with the present farm access track, aligned northeast to southwest. The track is 3m wide, and a short section of poorly preserved stone wall, 1m wide by 0.5m high, runs along its south side.	Lesser
28		Field boundaries, stone and turf bank	Historical maps; Field survey		175207 to 175149	651873 to 651850	Field survey identified a short section of curvilinear turf and stone bank, circa 1m high and 0.8m wide. The bank is covered in dense bracken. The feature may be the poorly preserved remnants of a bank or former wall which originally ran down the northern edge of the present farm access track.	Lesser
29	Minen Farmstead	Field boundaries, stone and turf banks, field system	Historical maps; Field survey		17531	65196	The Ordnance Survey 1st Edition map (1870) depicts a series of sinuous field boundaries immediately to the northwest of a farmstead, annotated as 'Auchabrad'. Field survey identified the remains of several sinuous stone and turf banks circa 500m west of Minen Farmstead (NR75SE 12) covering an area approximately 700m by 600m. The banks are generally poorly preserved measuring 1m wide and 0.3-4m high and form a series of rectilinear enclosures or fields to the northwest of the farm. Only the remains of one field bank (centred on 17531 65196) lies within the access road corridor; the majority of the field banks lying outwith the study corridor.	Local
30	Minen Farmstead	Field boundaries, stone and turf banks, field system	Historical maps; Field survey		17600	65192	The Ordnance Survey 1st Edition map (1870) depicts a series of curvilinear / linear field boundaries immediately southeast of a farmstead, annotated as 'Auchabrad'. Field survey identified the remains of several curvilinear and linear stone and turf banks, covering an area approximately 900m by 800m (centred on 17600 65192), immediately southeast of Minen Farmstead (NR75SE 12). The banks varied in preservation, ranging in size from 0.5m-1m high and 1m-1.5m wide. They define at least two large enclosures or fields. Most of the field banks lie outwith the proposed access road corridor.	Local
31	Gleann Laoigh	Shieling Huts	NMRS; SMR	NR74NE 3 / 45039	1791	6487	The NMRS and SMR record that two stylised rectangular features are shown on the Ordnance Survey 1980 1:10,000 map, annotated as 'Old Shielings'. The structures are not shown on earlier maps. No remains of the shielings were identified during the field survey. The area in which the shielings were previously recorded is now part of a commercial forestry plantation.	Unknown (Local)

**APPENDIX 9.3: External Receptors within 15km of the Proposed Windfarm (and intervisible with it)<sup>24</sup>**

No	Site	Status	Grid coordinates	Site importance	Turbines Visible	Distance to nearest Turbine (km)	Type of effect	Magnitude of Effect	Significance of Effect
212	Loch Ciaran, standing stone, Clachan	SAM	NR 780 547	National	8	6.37	None	None	None
3177	Airds Castle, Carradale	SAM	NR 820 383	National	10	9.07	Indirect	Imperceptible	Minor
3184	An Dunan, dun, Achameanach	SAM	NR 756 520	National	3	4.90	Indirect	Imperceptible	Minor
2491	Dun Skeig, duns and fort	SAM	NR 757 572	National	10	9.36	Indirect	Imperceptible	Minor
3228	Dunan Buidhe, dun, Gigha	SAM	NR 652 497	National	1	13.29	Indirect	Imperceptible	Minor
3651	Cnoc na Sgratha, cairn 550m N of Glenbuie	SAM	NR 885 579	National	10	13.37	Indirect	Imperceptible	Minor
3649	Grogport Old Manse, dun 180m ENE of	SAM	NR 811 434	National	7	3.99	None	None	None
3817	Talatoll, shielings 1600m SE of, Loch Ciaran	SAM	NR 778 528	National	6	4.59	Indirect	Imperceptible	Minor
90279	Skipness Castle and chapel	SAM	NR 907 577	National	9	14.85	Indirect	Imperceptible	Minor
18408	Skipness Castle	Category A Listed	NR 90819 57794	National	9	14.91	Indirect	Imperceptible	Minor
18360	Cour House	Category A Listed	NR 82342 48147	National	3	2.95	Indirect	Low	Minor
18409	Kilbrannan Chapel	Category A Listed	NR 91037 57526	National	9	14.90	Indirect	Imperceptible	Minor
7637	Arran, Catacol, 1 The Row	Category B Listed	NR 91063 49667	Regional	10	11.72	Indirect	Imperceptible	Negligible
7637	Arran, Catacol, 2 The Row	Category B Listed	NR 91062 49661	Regional	10	11.74	Indirect	Imperceptible	Negligible
7637	Arran, Catacol, 3 The Row	Category B Listed	NR 91062 49656	Regional	10	11.76	Indirect	Imperceptible	Negligible
7637	Arran, Catacol, 4 The Row	Category B Listed	NR 91064 49652	Regional	10	11.78	Indirect	Imperceptible	Negligible
7637	Arran, Catacol, 5 The Row	Category B Listed	NR 91065 49647	Regional	10	11.86	Indirect	Imperceptible	Negligible
7637	Arran, Catacol, 6 The Row	Category B Listed	NR 91066 49644	Regional	10	11.88	Indirect	Imperceptible	Negligible
7637	Arran, Catacol, 7 The Row	Category B Listed	NR 91066 49636	Regional	10	11.80	Indirect	Imperceptible	Negligible
7637	Arran, Catacol, 8 The Row	Category B Listed	NR 91067 49633	Regional	10	11.82	Indirect	Imperceptible	Negligible
7637	Arran, Catacol, 9 The Row	Category B Listed	NR 91068 49629	Regional	10	11.84	Indirect	Imperceptible	Negligible
7637	Arran, Catacol, 10 The Row	Category B Listed	NR 91068 49624	Regional	10	11.86	Indirect	Imperceptible	Negligible
7637	Arran, Catacol, 11 The Row	Category B Listed	NR 91069 49618	Regional	10	11.88	Indirect	Imperceptible	Negligible
7637	Arran, Catacol, 12 The Row	Category B Listed	NR 91070 49614	Regional	10	11.90	Indirect	Imperceptible	Negligible
18281	Carse House, Farm Steading	Category B Listed	NR 74662 61629	Regional	3	13.92	Indirect	Imperceptible	Negligible
13479	Arran, Pirmill Memorial to Rev John Kennedy	Category B Listed	NR 87282 44281	Regional	10	8.32	Indirect	Imperceptible	Negligible
13489	Arran, Pirmill, Pirmill Church	Category B Listed	NR 87282 44264	Regional	10	9.78	Indirect	Imperceptible	Negligible
18280	Carse House	Category B Listed	NR 74722 61845	Regional	8	14.00	None	None	None
18405	Grogport, Grogport Old Manse	Category B Listed	NR 81053 43410	Regional	10	4.01	Indirect	Imperceptible	Negligible
18359	Skipness, Saint Brendan's Church of Scotland	Category C(S) Listed	NR 90308 57868	Local	9	14.56	Indirect	Imperceptible	Negligible
49537	Imachar, Hazelwood Farm, Byre	Category C(S) Listed	NR 86558 40482	Local	10	9.68	Indirect	Imperceptible	Negligible
18358	Skipness Estate, Lodge	Category C(S) Listed	NR 90365 57901	Local	10	14.57	Indirect	Imperceptible	Negligible
49537	Imachar, Hazelwood Farm	Category C(S) Listed	NR 86457 40462	Local	10	9.68	Indirect	Imperceptible	Negligible
18246	Dunmore, Estate, Mausoleum	Category C(S) Listed	NR 78971 61801	Local	6	13.29	None	None	None
49537	Imachar, Hazelwood Farm, Cartshed	Category C(S) Listed	NR 86568 40462	Local	10	9.82	Indirect	Imperceptible	Negligible
49535	Pirmill, Pirmill Church of Scotland	Category C(S) Listed	NR 87395 44746	Local	10	8.29	Indirect	Imperceptible	Negligible

<sup>24</sup> Based on analysis of ZTV for wind turbines 111.25m to blade tip

**Key**

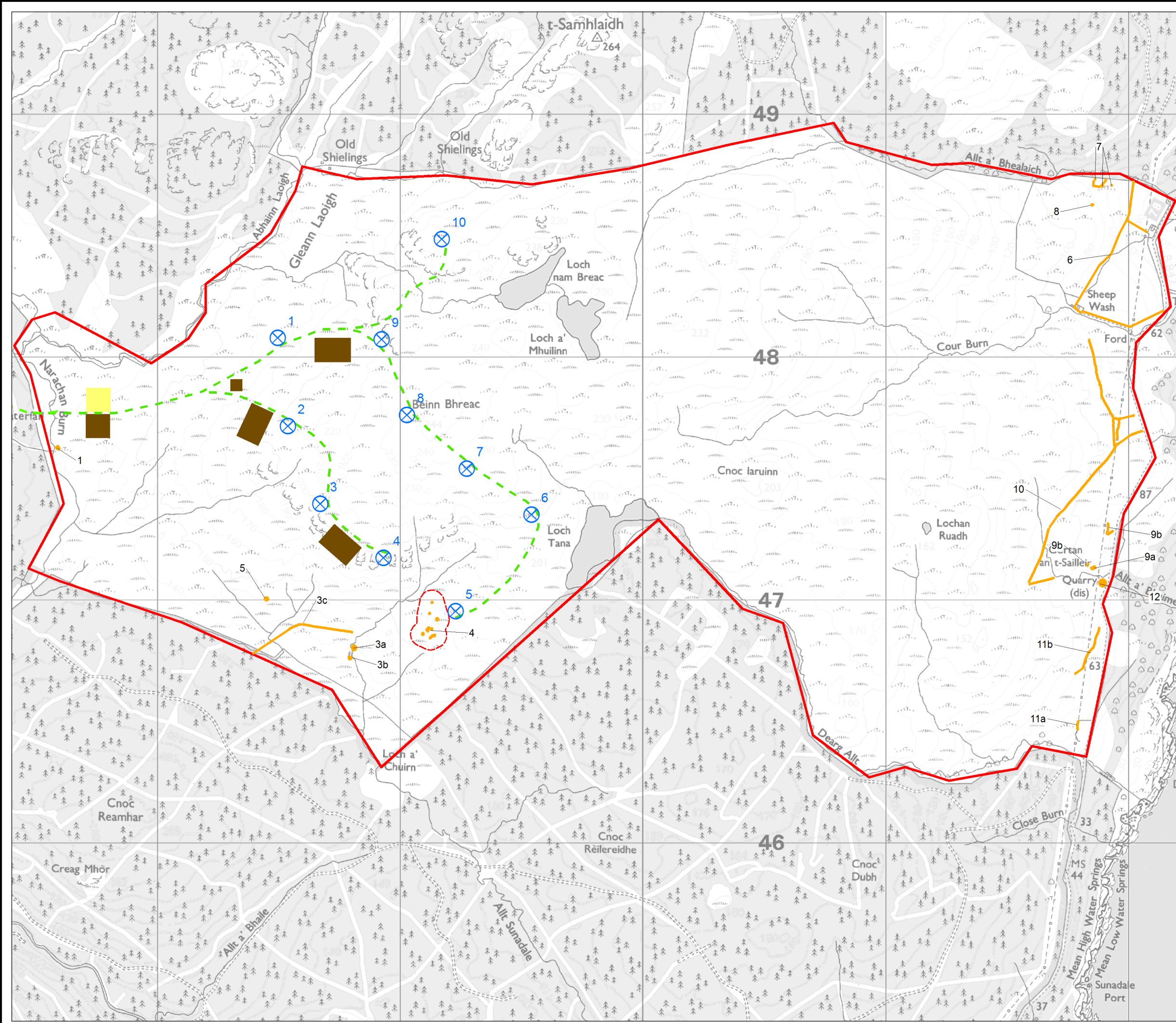
- Turbine Location
- Site Access Route
- Cultural Heritage (Points)
- Cultural Heritage (Linear)
- 50m Buffer

Scale 1:15,000 @ A3



**Cour Windfarm  
Internal Constraints Map  
Figure 1**

**Cour Windfarm  
Environmental Statement**



**Key**

**Listed Building**

**Category**

- + A
- + B
- + C(S)
- Scheduled Ancient Monument
- Turbines Locations

- Site Boundary
- 15km Study Area
- Alternative Site Access Route
- Site Access Route

**Number of Turbines Visible**

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

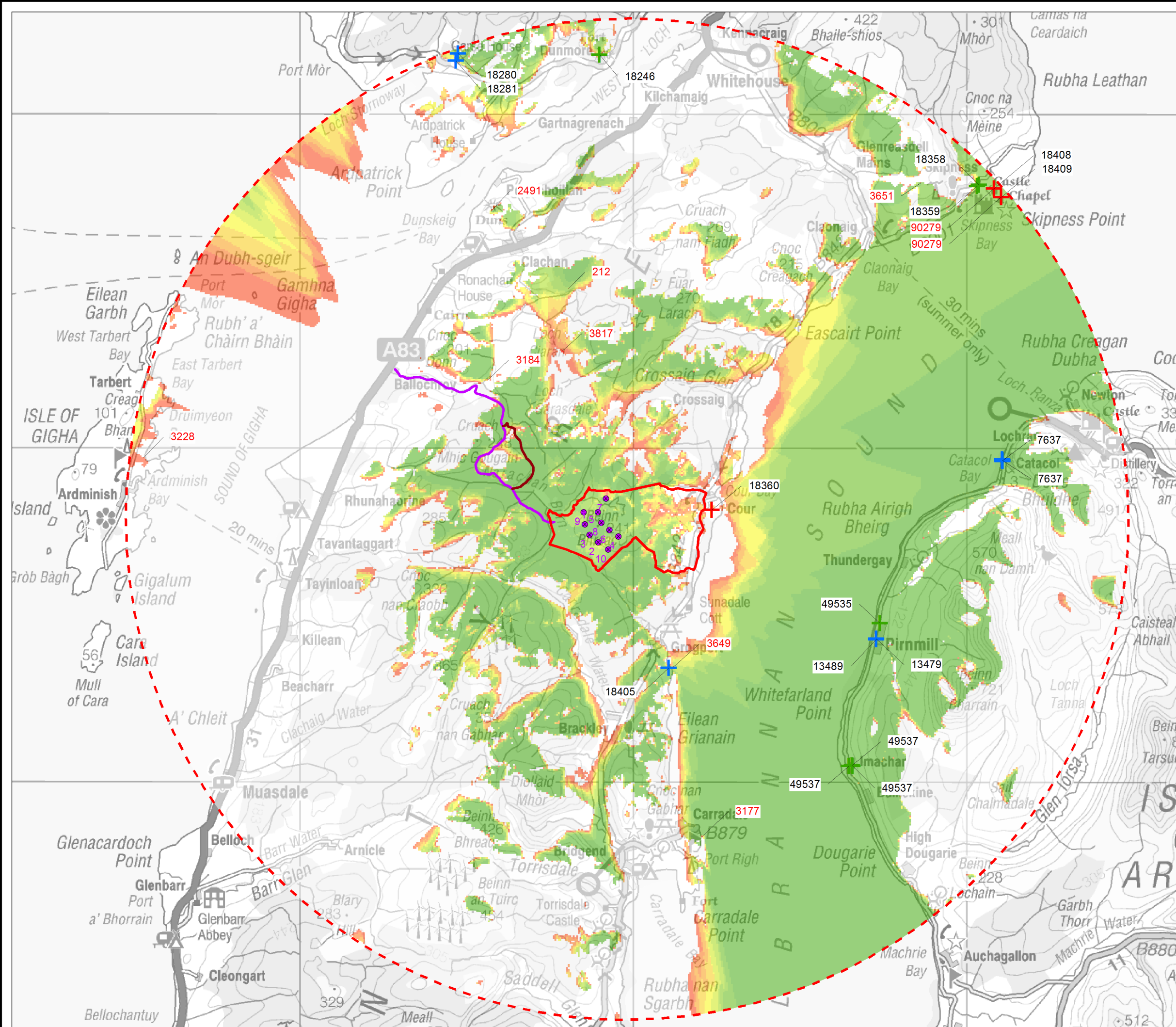
Scale 1:110,000 @ A3









External receptors within 15km of the proposed development area

Figure 2

**Cour Windfarm  
Environmental Statement**



**Key**

-  Site Boundary
-  Cultural Heritage Site
-  Alternative Site Access Route
-  Site Access Route
-  50m Site Access Buffer
-  Scheduled Ancient Monument



**Cour Windfarm Access Road**

Figure 3

**Cour Windfarm Environmental Statement**

