

ENVIRONMENTAL
STATEMENT

VOLUME 1: NON-
TECHNICAL SUMMARY

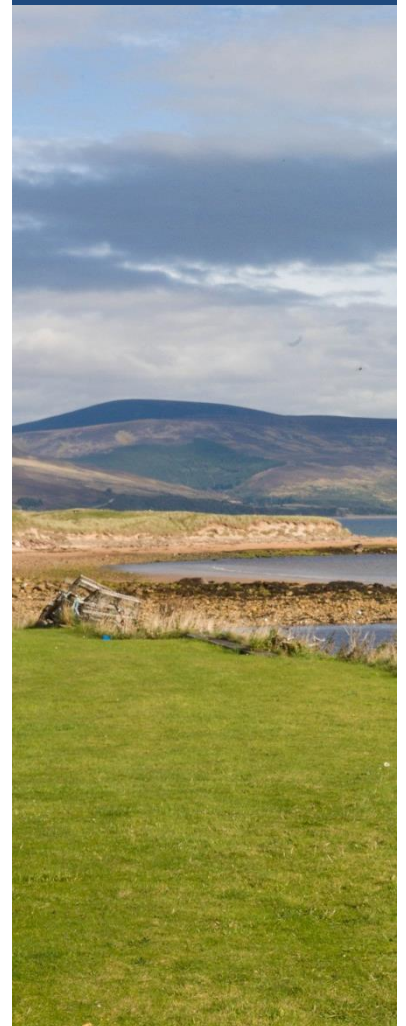
JULY 2015

COGLE MOSS WIND FARM

COGLE MOSS RENEWABLES LLP

Muirden, Turriff,
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AB53 4NH

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Preface

The following Non-technical Summary forms the first part of a four volume Environmental Statement, which presents the findings of the various assessments undertaken to address the potential environmental effects of the proposed development at Cogle Moss, Watten, Caithness, KW1 5UL.

Document	Title	Contents
Volume 1	Non-Technical Summary	Summary details of the proposal and conclusions of the individual EIA chapters
Volume 2	Written Statement	Full details of all assessments included within the EIA
Volume 3	Figures	Presentation of A3 figures referred to in Written Statement
Volume 4	Appendices	Technical details to support the Written Statement

This Environmental Statement (ES) has been prepared by Muirden Energy LLP to accompany a planning application submitted under the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations by Cogle Moss Renewables LLP to the Highland Council. The planning application is for consent to construct and operate a 12 turbine wind farm at Cogle Moss in the Scottish Highlands.

Specialist EIA input has been provided by the following consultants:

Ecology, Protected Mammals and Ornithology – SAC Consulting

Geology, Hydrology, Hydrogeology and Peat – Atmos Consulting

Archaeology – AOC Archaeology Group

Access, Traffic and Transport – Wynns Independent Transportation Consultants

Aviation – Osprey Consulting Services

Additional copies can be purchased directly from Cogle Moss Renewables LLP: printed copies are available at a cost of £500 or digital versions on CD-ROM are available for a cost of £10.

Copies of the ES may be viewed at the following locations during normal opening hours:

Highland Council
Government Buildings
Girnigoe Street
Wick
KW1 4HW

To order an additional copy, please contact Cogle Moss Renewables LLP at the following address or phone number:

Cogle Moss Renewables LLP
Muirden Farm
Turriff
Aberdeenshire
AB53 4NH

Tel: 01888 569 310

Comments on the application for planning permission should be forwarded to the address below:

ePlanning
ePlanning Centre
Glenurquhart Road
Inverness
IV3 5NX

Or, by email to: eplanning@highland.gov.uk

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SECTION 2.....SUMMARY OF THE PROPOSED DEVELOPMENT

SECTION 3..... SUMMARIES OF THE ENVIRONMENTAL IMPACT ASSESSMENT

1 Introduction

The Non-Technical Summary (NTS) summarises the Environmental Statement (ES) for the proposed development of a wind farm at Cogle Moss. The NTS should be read in conjunction with the planning application for the proposed Cogle Moss Wind Farm near Watten in the Scottish Highlands.

There is a requirement for an Environmental Impact Assessment (EIA) to be submitted as part of the application due to the potential for significant environmental effects resulting from the development. The EIA considers the current characteristics of the site and surrounding area, predicts the impacts resulting from the development and evaluates their significance. Where significant effects are predicted, mitigation measures are proposed.

2 Summary of the proposed development

2.1 The development proposal

The proposed development would be located on Cogle Moss – farmland situated approximately 3km north east of Watten and 9km west of Wick. The site boundary borders the B874 road to the south, the Moss of Killimster to the east, and farmland to the west. The exact site location is shown in Figure 1.

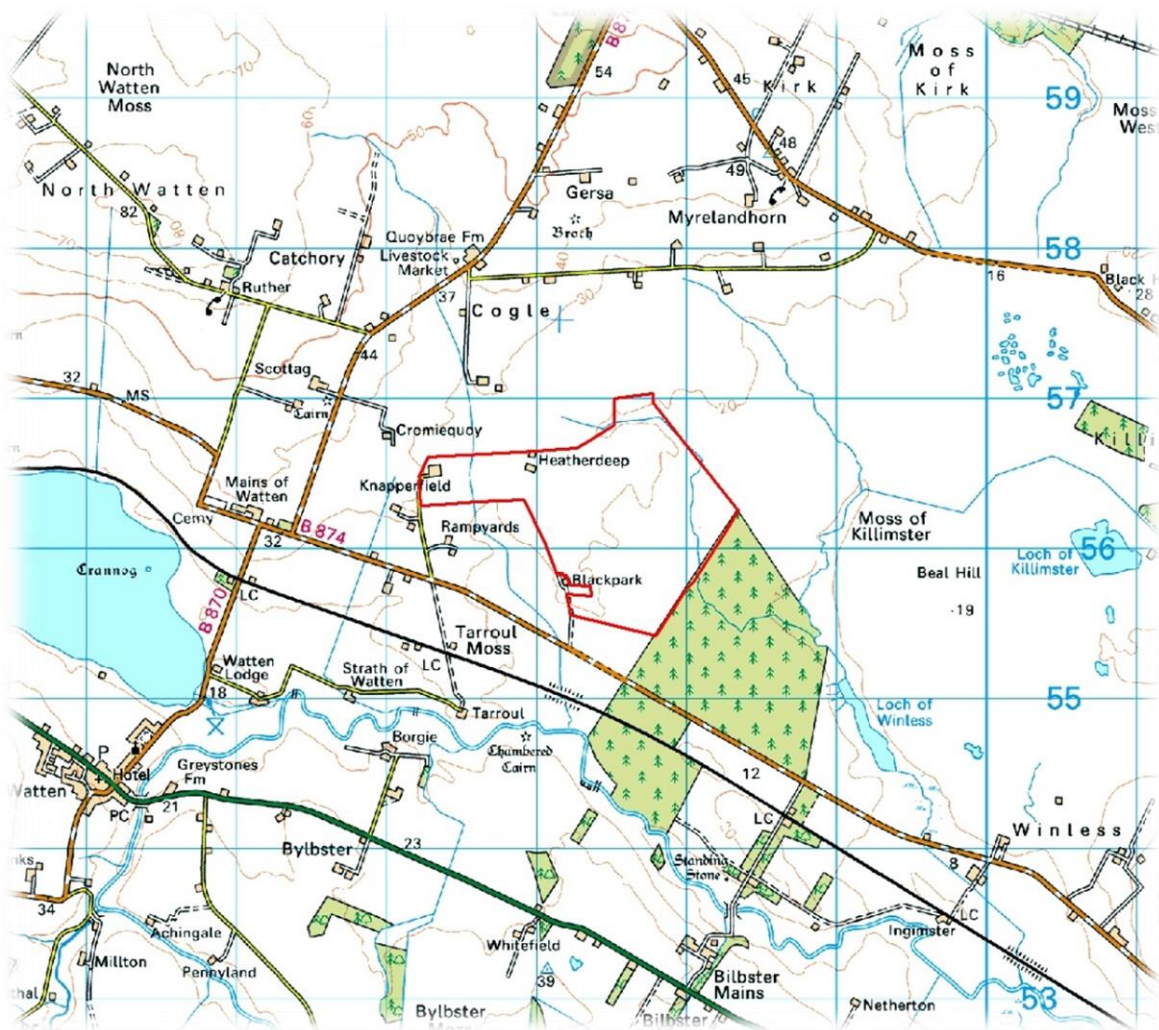


Figure 1 Site location

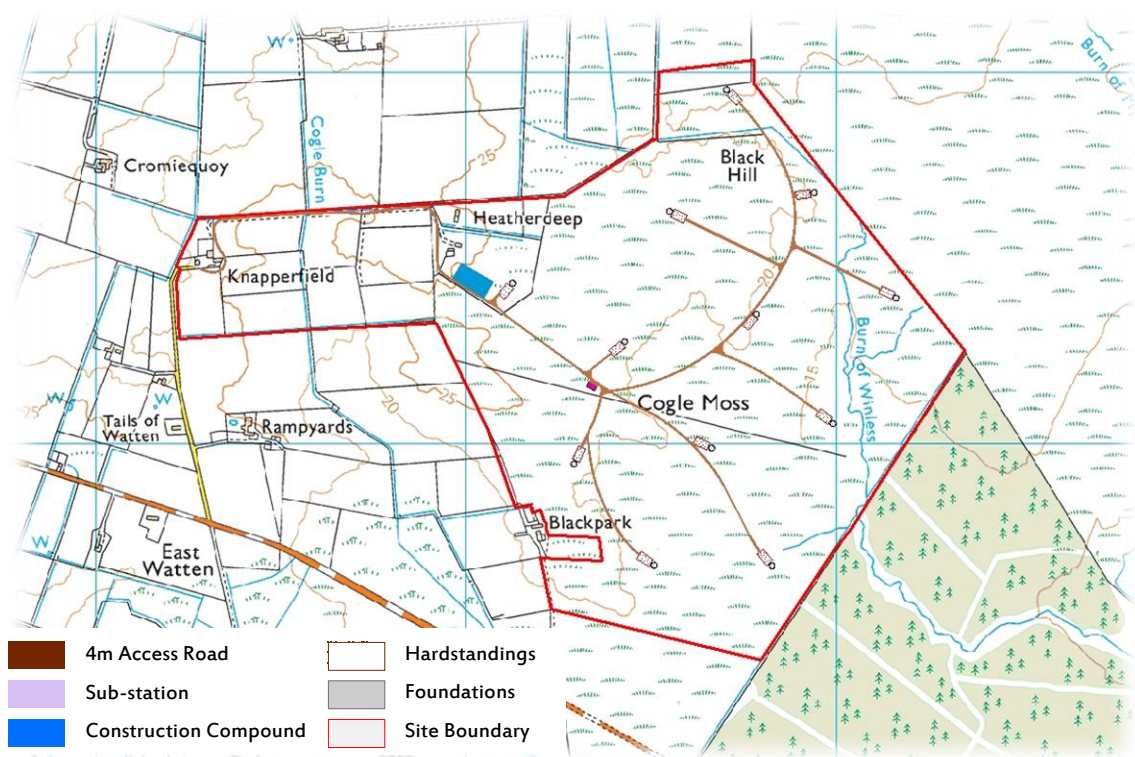
The main components of the proposed Cogle Moss wind farm are shown in Figure 2 and comprise:

- 12 turbines up to 100m to blade tip and each with a rated output of up to 3MW, giving a total output of up to 36MW;
- 12 crane hardstandings with dimensions of 39m x 22m;
- Approximately 5km of permanent access tracks, including areas of floating road;
- Electrical and communication underground cables running along the majority of the access track;
- A substation and control building;

In addition to these components which will be present for the life of the development there will be:

- A temporary main construction compound with storage facilities and welfare facilities;

Figure 2 Site layout



2.2 The developer

Cogle Moss Renewables LLP is a partnership comprising members of Scotland's agricultural sector who have ambitions to help Scotland meet its energy requirements through utilising the country's abundant wind resource. The partnership aims to develop, build and operate wind energy projects throughout the northeast and north of Scotland, whilst keeping and building strong relationships with local communities.

The partners have been involved in a number of successful projects over the past decade. A strong emphasis has been placed on working together with local landowners to deliver the benefits of renewable energy to rural businesses, whilst an effort has also been made to provide an opportunity to local communities to get involved in projects.

Cogle Moss Renewables LLP is keen to offer the same opportunities to the local community of Watten and believes that Cogle Moss has great potential to make a significant contribution to Scotland's renewable energy targets.

2.3 Planning policy

The proposed Cogle Moss Wind Farm has the capacity to generate up to 36MW of electricity and is therefore categorised as a Major Development under the Town and Country Planning (Hierarchy of Development) (Scotland) Regulations 2009. The proposed development has been assessed using a wide range of planning frameworks and policies including:

- Scottish Planning Policy;
- National Planning Framework 3;
- Onshore wind turbines specific advice sheet;
- Onshore Wind Energy: Interim Supplementary Guidance;
- Caithness Local Plan;
- Highland-wide Local Development Plan.

Following the Environmental Impact Assessment process, the wind farm at Cogle Moss is expected to be in accordance with each of these documents.

2.4 Environmental Impact Assessment

The environmental effects of the proposed development have been discussed within the Environmental Statement in accordance with the Environmental Impact Assessment (Scotland) Regulations 1999.

The EIA considers the current characteristics of the site and surrounding area, predicts the impacts resulting from the development and evaluates their significance. Where significant effects are predicted, mitigation measures are proposed. The Environmental Statement (ES) comprises the following documents:

- **Volume 1: Non-technical Summary** - *A summary of the main findings of the ES provided in accessible plain English.*
- **Volume 2: Written statement** - *A description of the proposal including baseline information on sensitive environmental components, as well as a description of likely direct, indirect, secondary, cumulative, permanent or temporary, positive and negative significant effects to these components. Mitigation measures are also explored and summarised.*
- **Volume 3: Figures** - *All figures related to the EIA.*
- **Volume 4: Technical appendices** - *Detailed technical reports that support Volume 2.*

2.5 Project Design

A number of factors were taken into account when deciding where the wind farm project would be located on Cogle Moss. The following factors were taken into account when attempting to choose the optimal location of the wind farm project:

- Wind resource;
- Grid connection;
- Site access;
- Environmental impact;

- Desired energy generation;
- Aesthetic considerations;
- Land take;
- Aviation restrictions.

2.5.1 Layout Evolution

From the initial site selection to submission for planning consent the wind farm layout has evolved following feedback from consultation with Highland Council and statutory consultees. The design process has led to a number of changes that can be grouped into four main iterations, as detailed in Table 1.1.

Table 1.1 Modifications to wind farm design

Application	Turbine details	Modification Rationale
Design Stage 1	7 turbines, 100m to blade tip height (2.3MW)	Initial design
Design Stage 2	10 turbines, 100m to blade tip height (2.3MW)	An agreement was made with the landowner to extend the site boundary in 2012. The enlarged site was considered capable to accommodate 10 turbines.
Design Stage 3	12 turbines, 100m to blade tip height (up to 3MW)	An agreement with a neighbouring landowner allowing the development site to be increased further. The new development site was considered to be capable of accommodating 12 turbines.
Design Stage 4	12 turbines, 100m to blade tip height (up to 3MW)	Following feedback from public consultation, the second EIA Scoping report from the Highland Council and detailed peat and archaeological surveys, changes were made to the layout of the access tracks and turbine locations.

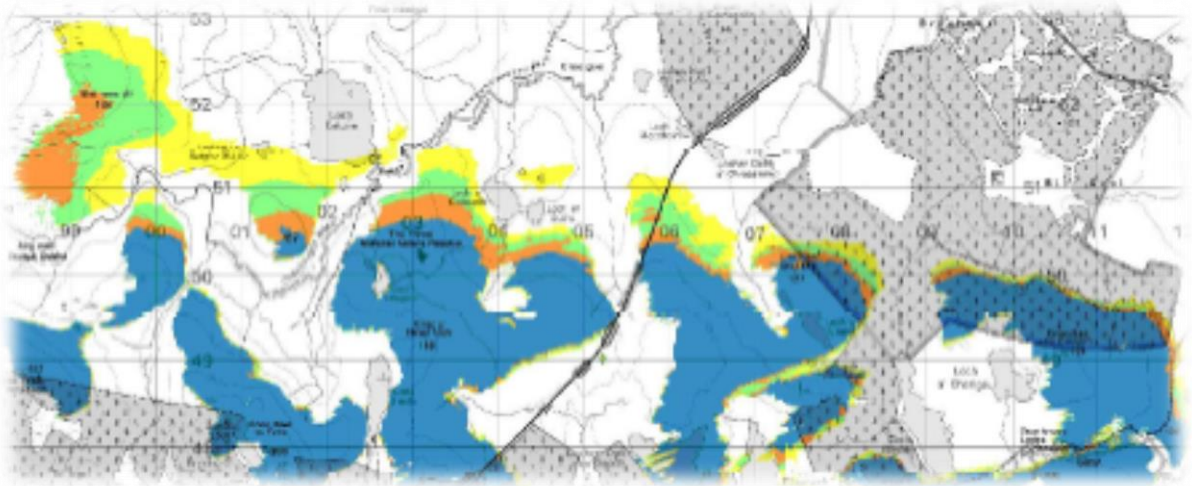
The final wind farm layout comprises of 12 wind turbines up to 100m to blade tip height, each with a generating capacity of up to 3MW.

3 Summaries of the Environmental Impact Assessment

3.1 Landscape and Visual Impact

A landscape and visual assessment was undertaken to identify whether any significant impacts would occur to the landscapes and key views surrounding the proposal because of the development.

Wind turbines are inevitably visible over relatively large areas due to their scale; however, some landscapes are more capable of accommodating wind turbines than others. Therefore, the assessment included an appraisal of each different landscape character type and its susceptibility to change because of wind turbine development. The scale, value, composition, wildness and extent of development, among other attributes, of an area has therefore been considered in making decisions on the extent of effects to landscapes and views. In addition, an increased emphasis has been placed on assessing the effects to designated landscapes, such as Special Landscape Areas, and major transport routes and settlements.

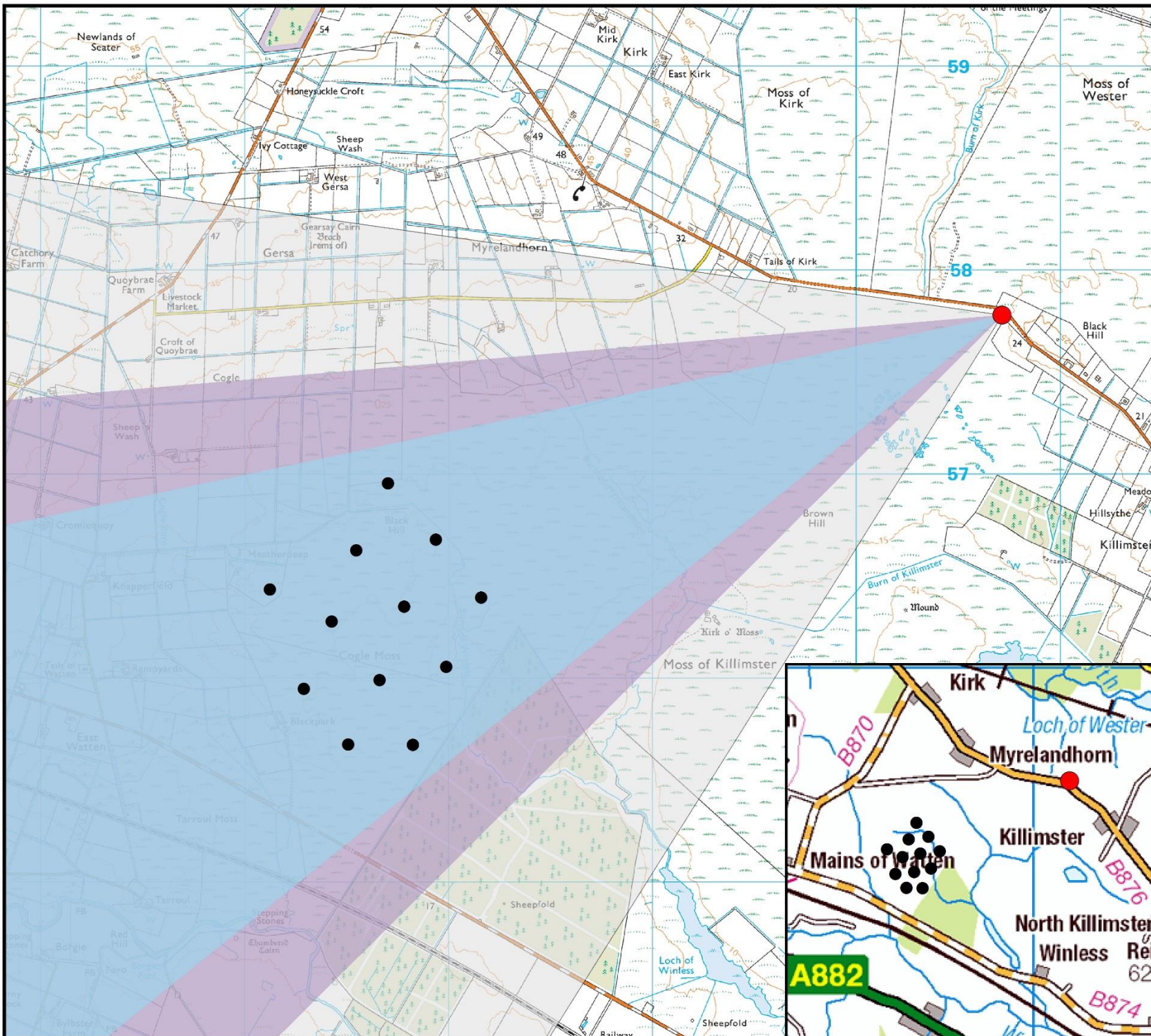


Significant impacts were predicted to three of the sixteen viewpoints. No significant effects were predicted to the assessed surrounding landscape character types, settlements or areas of Special Landscape Value within the 35km study area.

Cumulative effects were also assessed: in particular in relation to the operational and consented developments at Achairn, Bilbster, Wathegar and Camster, which are all large commercial developments that are closest to the proposed development. No significant cumulative effects were identified because of the introduction of the wind farm at Cogle Moss.

Landscape and visual impacts related to the wind turbine structures were reduced throughout the wind farm design stage. Taking into account a number of site constraints, such as areas of deep peat, as well as the subtle topography of the area, a layout has been designed which minimises clustering or outlying turbines, and which in scale and size adheres to the pattern of existing developments in this part of Caithness.

Views of the wind farm are displayed overleaf.



PROJECT: COGLE MOSS WIND FARM

CLIENT: COGLE MOSS RENEWABLES LLP

Viewpoint 2 - Black Hill

Taken from the Black Hill near the B876 road.

Scale: 1:25,000

Checked by: AF

Drawn by: KF

Date: 08/07/2015

VIEWPOINT DATA

Grid Reference 330715, 957779

Elevation 19m

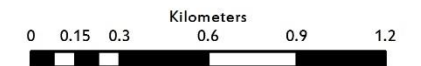
Distance to nearest turbine 2.9km

PREDICTED TURBINE VISIBILITY

Number of turbines visible 12

Number of turbine hubs visible 12

- 65.5 degree horizontal field of view
- 39.6 degree horizontal field of view
- 27.0 degree horizontal field of view



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VIEWPOINT 2 (Fig. 7.38b) Black Hill
Image to be viewed at a comfortable distance

Distance to nearest turbine: 2.9km

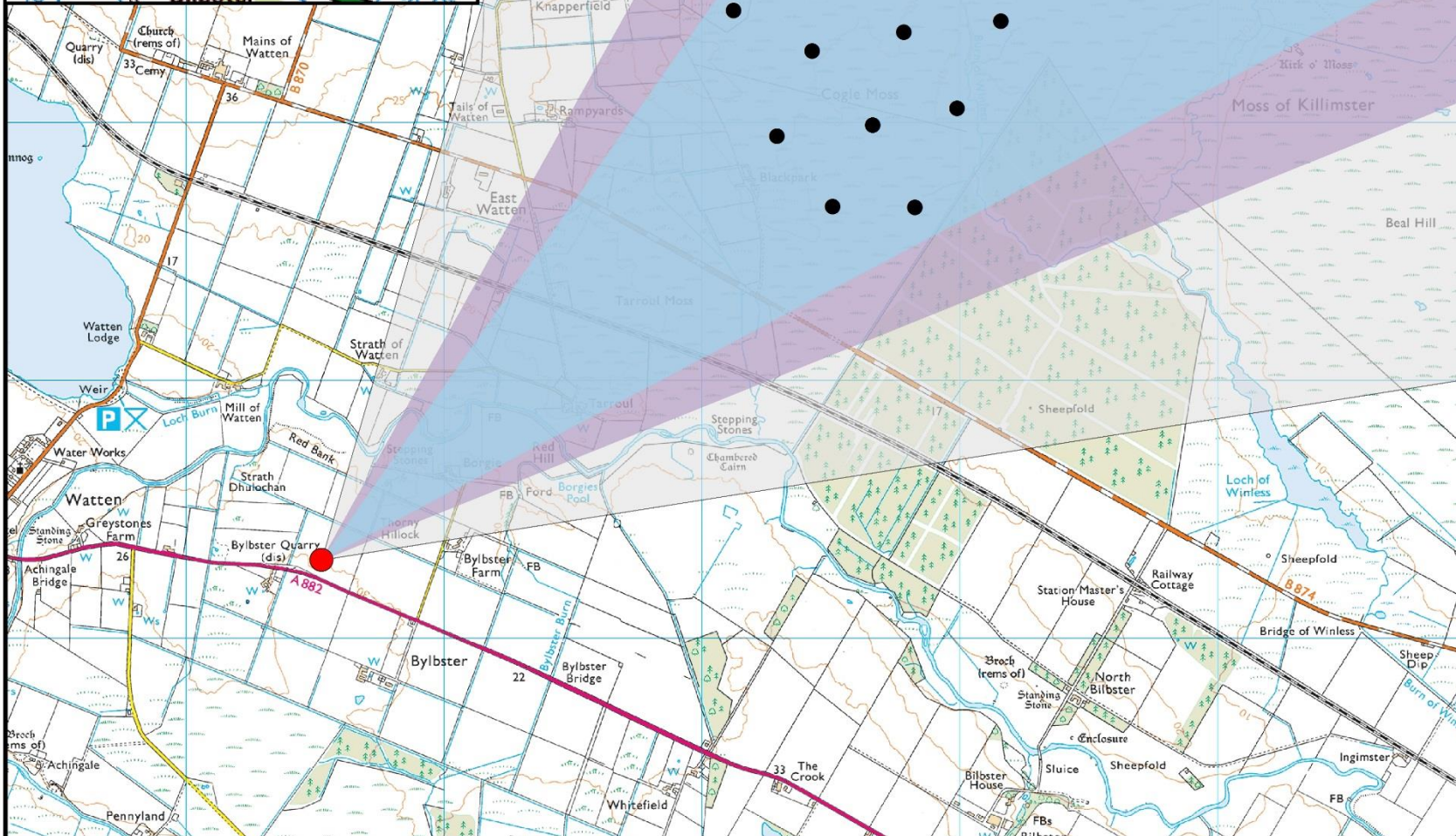
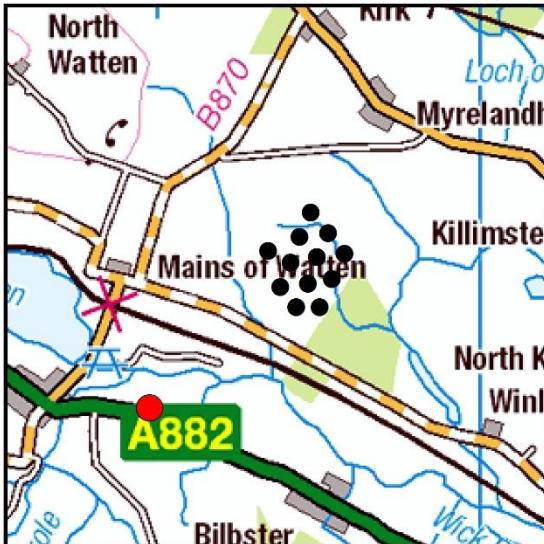
Camera: Canon EOS 5D

Focal length: 50mm

Camera height: 1.5m

Date: 12/02/2015

Time: 11:20



PROJECT: COGLE MOSS WIND FARM

CLIENT: COGLE MOSS RENEWABLES LLP

Viewpoint 5 - Bylbster

Taken just off the A882, approximately 1km east of Watten.

Scale: 1:25,000

Checked by: AF

Drawn by: KF

Date: 08/07/2015

VIEWPOINT DATA

Grid Reference 325527, 954304




Elevation 27m

Distance to nearest turbine 2.5km

PREDICTED TURBINE VISIBILITY

Number of turbines visible 12

Number of turbine hubs visible 12

-  65.5 degree horizontal field of view
-  39.6 degree horizontal field of view
-  27.0 degree horizontal field of view



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VIEWPOINT 5 (Fig. 7.41b) Bylibster
Image to be viewed at a comfortable distance

Distance to nearest turbine: 4.9km

Camera: Canon EOS 5D

Focal length: 50mm

Camera height: 1.5m

Date: 11/02/2015

Time: 16:00

3.2 Noise

A comprehensive assessment was completed to assess the potential noise impacts at noise sensitive receptors during periods of construction and operation of the Cogle Moss Wind Farm.

Construction noise was assessed in accordance with the British Standard BS 5228-1:2009. When mitigation is implemented and good practice site management measures are adopted, no significant effects would occur at properties closest to construction activities.

Operational noise was assessed using the ETSU-R-97 methodology and implementing Highland Council noise limits. When operational the proposed Cogle Moss Wind Farm does not exceed these noise limits and therefore no significant effects would occur.

3.3 Shadow Flicker

Under certain combinations of geographical position and time of day, the sun may pass behind the rotors of a wind turbine and cast a shadow over neighbouring properties. Shadow flicker effects will occur when a certain combination of conditions coincide in specific locations at particular times of the day and year.

The Scottish Government acknowledge that shadow flicker should not be a problem beyond 10 rotor diameters of a wind turbine. Consequently for the proposed Cogle Moss wind turbines, shadow flicker is not expected beyond 710m of each turbine. There are no properties within 10 rotor diameters (710m) of the Cogle Moss Wind Farm and so no shadow flicker is predicted at residential properties.

3.4 Ecology

SAC Consulting completed a habitat survey using the National Vegetation Classification (NVC), between 2nd May and 10th May 2013. During visits to the site, blanket bog, wet heaths, dry heaths, grassland, flushes and scrub were identified. Overall, no nationally rare or scarce species were identified.

Vegetation studies were completed to identify the vegetation at or near the location of each proposed turbine and associated infrastructure. The main habitat groups to consider are blanket bog and ground water dependent vegetation, which have been carefully considered when developing the proposed wind farm to ensure minimal impact occurs.

Blanket bog occupies of just over 80% of the study area, however, less than 5% of this blanket bog will be impacted on by the proposed Cogle Moss Wind Farm.

3.5 Protected Mammals

An initial survey of the area was completed on 30th November 2013, which assessed mammals, bats and herptiles. The initial survey concluded that additional specialist field surveys would be beneficial: otter, water vole, bats and herptiles. These field surveys were completed at appropriate times of the year during 2014 and 2015.

A number of recommendations have been made for pre, during and post construction works to reduce the risk to mammals on site. Primarily these recommendations are to follow best practice guidance and post-construction monitoring, which will help minimise potential impacts.

3.6 Ornithology

Ornithological studies were initially completed by NDR Environmental in 2010 and 2011 and have been used to supplement the ornithological studies completed by SAC Consulting in 2013 and 2014.

The proposed wind farm is not positioned within any sites designated of national or international importance for birds, although it is within 20km of four Special Protection Areas (SPAs) for birds. These sites are legally protected and potential effects to the designations have been assessed. The Cogle Moss Wind Farm is positioned within the core foraging range of the qualifying species of the two SPAs and therefore it is possible the Cogle Moss Wind Farm will impact on the SPAs. Breeding bird and vantage point work was completed by SAC Consulting to assess effects to birds from these SPAs and to those that use the wind farm site.

There were few sensitive bird species breeding within the survey area and no significant impacts are predicted to breeding birds. Additionally, the collision risk for each identified bird species was calculated to be of low risk and no significant impacts to individual species or their SPAs are anticipated.

3.7 Hydrology, Hydrogeology and Soil

Atmos Consulting completed desk-based studies and numerous site visits to assess the potential impacts which may occur during the construction and operation of the proposed development.

No private water supplies were located within 1km of the proposed development. The closest private water supply is located at a distance of 4km from the proposed development and is unlikely to be affected.

With the exception of a short section of access track, the development site is not located within or close to areas that SEPA have defined as at risk of flooding. Using SEPA's guidance and appropriate designs, the risk of flooding is considered negligible. Both SEPA and the Highland Council have confirmed they have no records of localised flooding events in the area and the development is unlikely to increase the probability of flooding elsewhere or significantly increase surface runoff.

Peat studies have been completed to predict the possibility of a peat slide, which concluded the likelihood of a peat slide occurring is limited. Further mitigation during construction measures will be implemented to reduce this risk further.



N.B. Areas of green are peat slide risk and hazard which are categorised as insignificant.

The use of best practice guidance will be used throughout the key stages of the development, in particular during construction, to ensure no negative impacts occur to the site. Overall, no significant impacts are anticipated.

3.8 Cultural Heritage

A desk-based assessment was completed on all known cultural heritage features within a 10km radius of the proposed development site. This included Category A and B listed building, Gardens and Designed Landscape and Scheduled Monuments.

A walkover study was completed by AOC Archaeology group and their recommendations have been implemented in the design process to prevent any direct impacts on recorded Historic Environmental Records. Overall, no significant impacts were identified.

A number of cultural heritage features are positioned within the 10km study area and so it is possible that the setting of these relics will be impacted upon. However, after further assessment of each relic within the 10km study area, the impact of the proposed Cogle Moss Wind Farm is not expected to be significant.

3.9 Transport and Access

An assessment was made regarding the surrounding highway network during the construction, operation and decommissioning of the development. The proposed development site will be accessed by heavy good vehicles using the A882, A9 and B874, whereas light goods traffic are likely to travel to the site using the B874, via the A9 or A99.

The increase in traffic flow because of the proposed wind farm has been estimated and an increase in HGV traffic is calculated during the construction stage; however, this increase in traffic is temporary and will be considerably lower after construction has been completed.

The traffic associated with Cogle Moss has been assessed with two proposed developments (Cnoc Morail wind farm and Reaster wind turbine) and three consented developments (Achlachan, Halsary and Bad a Cheo). Each development proposed to use Wick Harbour and the A882 for transporting heavy goods, delivery times will need to be planned carefully to ensure no simultaneous deliveries occur. Although it is unlikely that the construction period for each project will be precisely at the same time, a coordinated delivery schedule will be completed as part of the Traffic Management Plan to reduce the risk of a significant cumulative impact.

The Cogle Moss Wind Farm has been designed to minimise the potential impact of traffic at all stages of the development, and so no significant impacts are foreseen. A full Abnormal Indivisible Loads assessment has been completed and a full Traffic Management Plan would be completed after planning approval has been gained.

3.10 Socio-economic

The socio-economics assessment assesses the potential economic and social effects that may occur due to the development of the Cogle Moss Wind Farm.

During the construction stage, the equivalent of 76 full-time jobs will be created within the Highland region and 40.4 full time jobs in Scotland. The construction period will provide the greatest potential for employment and economic activity at a local scale.

In regards to tourism, the physical impact on tourism and recreation during the construction stage is considered negligible. However, there may be short term impacts on road networks when materials are transported. The operational stage of the project is not considered to cause fishermen and walkers to change their recreational plans due to the visual presence of the wind farm.

An annual community benefit will be paid to the local community whereby they can choose what the money should be spent on within the local area.

3.11 Communications, Infrastructure and Electromagnetic Interference

Potential effects of the proposed development on communications, infrastructure and electromagnetic interference have been assessed. Wind turbines have the potential to be a physical obstruction that could affect communication networks and aviation activities. Consultation with various telecommunication operations was undertaken which found that no telecommunication links will be affected by the proposed wind farm.

In the event that television reception at local households is impacted upon, the problem will be dealt with by the developer and appropriate mitigation measures will be applied. Most television reception problems can be resolved by improving the receiving aerials or providing an alternative signal source. If this does not resolve the problem, then further investigations will be made.

4 Benefits of the project

The Cogle Moss Wind Farm would contribute a range of environmental and socio-economic benefits over its construction and operational periods:

- The power generated by the wind farm would contribute towards the Scottish Government's targets to generate 100% of Scotland's gross energy consumption from renewable sources by 2020.
- The reduction of Scotland's reliance on imported fossil fuels.
- The project would help further increase employment in the renewable energy sector in Scotland. In 2013, 1,459 people were employed full time in the renewable energy industry in the Scottish Highlands and Cogle Moss would help to further increase this figure.
- An annual community fund of at least £138,000 would be issued to Watten Community Council. The fund would be managed with long-term goals in mind to deliver meaningful benefits to the community.