



CATAMOUNT
ENERGY LIMITED



Andershaw Windfarm
Environmental Statement
Non Technical Summary

June 2007

Entec



Site Location

Introduction

This Non Technical Summary (NTS) forms part of the Environmental Statement (ES) to accompany an application by Catamount Energy Limited to construct and operate a 14 turbine windfarm named Andershaw, to the south of Douglas in the South Lanarkshire Council area.

Interest in renewable energy production (such as that produced by a windfarm) has arisen in response to growing concern about the rise in atmospheric levels of carbon dioxide (CO₂) and other greenhouse gases, and the changes in global climate that this could be causing. Burning fossil fuels (coal, oil and gas) is a major contributor to greenhouse gas emissions, and reducing their use and increasing the proportion of power generated from renewable energy sources is seen as a vital part of reducing these emissions.

In order to meet international obligations the UK government and Scottish Executive are committed to reducing greenhouse gas emissions in an attempt to reduce the effects of climate change that the Executive believes are already being experienced in Scotland. To ensure that UK and Scottish targets are met the Renewables Obligation (Scotland) has been placed on all electricity suppliers. This obliges them to increase the proportion of power that they supply from renewable sources, and includes a system of targets and financial penalties that will be imposed if these targets are not met. The Scottish Executive expects that much of the new power generation capacity required to meet the Renewable Obligation (Scotland) will come from windfarms, and that in the short term these will be primarily on land rather than offshore. Scotland has one of the windiest climates in Europe, giving the country great potential to use this resource to generate electricity.

The Windfarm

The proposed development is described in detail in the Main Report. A brief description of the proposal is given below:

- The proposed development site boundary including access route occupies a total area of around 326 hectares, though the windfarm infrastructure occupies only a small fraction of this. The windfarm is located within the forestry which occupies the western side of the Middle Muir, approximately 5km south of Douglas and approximately 10km west of the M74 Motorway.
- The site was selected following a thorough review taking account of environmental sensitivities, planning policy and windfarm locational guidance. This concluded that the site was in accordance with the developer's site selection criteria and was potentially suitable for windfarm development. In particular the site is within an area which South Lanarkshire Council considers has potential for windfarm development.
- 14 wind turbines, with a maximum height to blade tip of 125m are proposed.
- Associated ancillary development comprising unit transformers, meteorological mast, new and upgraded access tracks, substation, borrow pit, temporary site compound and laydown area, also form part of the application for planning consent.
- Vehicular access will be from the B7078 at Mid Rig using the existing track which runs to the north side of the coal conveyor.
- The windfarm will connect into the electricity transmission system from a proposed new onsite substation to a proposed new substation to the north of Coalburn. The grid connection and new substation does not form part of the application for planning permission, as provision of these will be the responsibility of Scottish Power.

- The electrical output of the proposed windfarm is anticipated to be 42MW, though the output may vary from this depending on the turbines specified and procured for the site through a competitive tendering process.
- A windfarm of 42MW is sufficient on average to supply the equivalent of the domestic electricity needs of approximately 23,484 homes.
- The proposed windfarm is designed with an operational life of 25 years and permission is sought for this period of operation only.
- Construction, site-restoration and commissioning of the windfarm are anticipated to take about 10 months, with opportunities for local workforces and companies to be involved.

Environmental Impact Assessment

Environmental Impact Assessment (EIA) is a process by which information about the environmental effects of a project is collected, evaluated, and taken into account in its design, the decision as to whether it should be given consent, and if it is given consent, how it is subsequently to be built, operated and dismantled. The developer presents the information on the project and its environmental effects in an Environmental Statement (ES). A Non Technical Summary (this document) is a statutory requirement of the EIA process which explains the potential environmental effects of the development in a non technical manner.

The Environmental Impact Assessment process has been instrumental in informing the design of the windfarm which went through a number of different iterations to ensure that it fitted with environmental constraints and in particular a landscape and visual specification for the type of landscape within which the development is located.

Consultation

A key aspect of the Environmental Impact Assessment is consultation, both to agree the scope of the document to be submitted and to understand public perception of the windfarm in order to help in the design process. Organisations consulted included The Scottish Executive, South Lanarkshire Council, Douglas Community Council, Scottish Natural Heritage, Royal Society for the Protection of Birds, Scottish Environment Protection Agency, Historic Scotland and many others.

Public consultation was also undertaken and included public exhibitions, in Douglas and Crawfordjohn on 12 and 13 February 2007 at which members of the public were invited to provide their views and comment on the proposals.

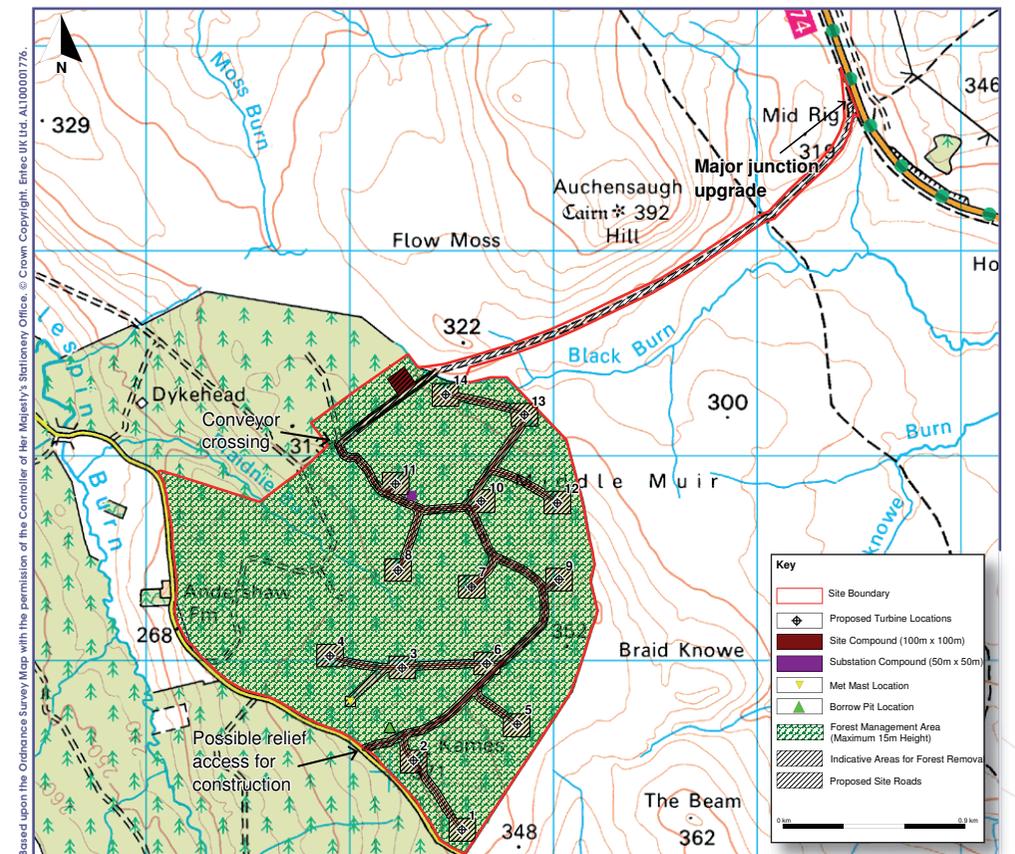
Environmental Effects

Introduction

The following sections provide a brief summary of the main findings of the ES as set out in the technical sections within the Main Report.

Landscape and Visual

The study area for the proposed Andershaw Windfarm includes South Lanarkshire, parts of East Ayrshire, Dumfries and Galloway and Scottish Borders. The proposed windfarm site area covers an area of 326 hectares and is located within an area of landscape characterised as Plateau Moorland.

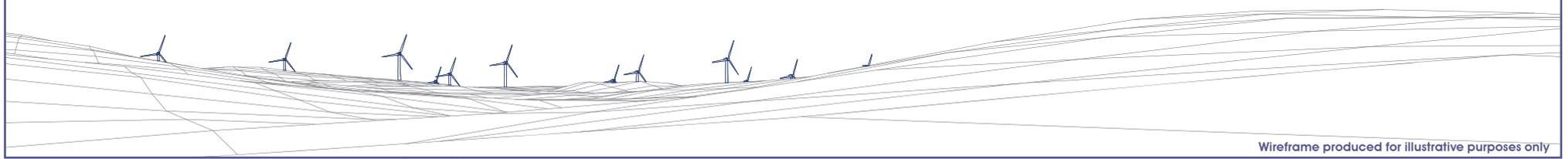


Proposed Site layout

The methodology for the landscape and visual impact assessment (LVIA) adopts standard guidelines promoted by the landscape institute and adopted for use by most practitioners. Consultation was conducted with representatives from South Lanarkshire Council and Scottish Natural Heritage to discuss and informally agree the features within the study area which would be subject to detailed study including viewpoints protected landscapes, house and people using the countryside.

Through the process of assessment it was established that significant effects from the windfarm are likely to occur with 4km of the outside edge of the turbines. The focus of assessment was therefore predominantly within this area. It was found that there was no sensitive or designated landscapes within this area. There is expected to be no significant effect directly on the landscape by the development because its footprint is so small thereby taking up a small proportion of the site. The landscape features that would be removed are common in the general area. There is no expected to be any significant effect in terms of the windfarm's development on landscape character, either where the development is located or further afield. There is expected to be significant

Computer Generated Wireframe of Proposed Andershaw Windfarm from B740 at Crawfordjohn



visual effects on parts of Crawfordjohn and from the rear of two properties close to the windfarm. There is also the potential for a significant effect from many windfarms being consented within the wider area changing the perception of the landscape overall, although Andershaw would make a small contribution to this effect.

Noise

A noise assessment was carried out for the development and operation of Andershaw Windfarm. The assessment considered noise from construction, operation and decommissioning of the site.

It is concluded that the distance from the turbines and other infrastructure, such as access tracks, is sufficient to ensure that any construction or decommissioning noise effects in the local area and particularly at properties will be minimised.

Operational noise was assessed in accordance with standard guidance recommended for use by the Scottish Executive. The design of the scheme is such that worst-case predictions of operational noise levels lie comfortably within noise limits based on the background noise at the closest property and the expected noise of the wind turbines. Any turbine installed will be required to meet the noise limits set by the assessment, by way of planning condition. Consequently, it is concluded that the Andershaw Windfarm scheme will have no significant effects in relation to noise.

Ecology

The ecological assessment was based on desk study to identify existing nature conservation features of value in conjunction with surveys to establish in the field the presence of any protected animals and habitats. Two features of designated nature conservation sites were found within a 2km cut off point from the windfarm. The site itself was found to comprise habitats of little nature conservation interest, such as young coniferous plantation woodland and poor semi improved acid grassland of which only a small amount would be taken by the development. No habitat was identified which would support a large number of protected species. Although the desk study indicated the presence of several protected species within the wider area, including red squirrel, water vole and otter, no evidence of the presence of these species on the Andershaw site was identi-

fied. Furthermore it is considered that the development of the windfarm at Andershaw will have no significant effects upon the protected areas because of their distance from the site. There are no significant adverse effects predicted for protected species, and it should be possible to comply fully with wildlife protection legislation.

Birds

Andershaw supports a typical bird community of thicket stage commercial conifer plantation with a range of common bird species. The wider survey area supports common species such as meadow pipit and skylark and relatively low numbers of species protected under special legislation or which are thought to be in decline. While Andershaw is used on occasion by a number of notable birds, the site is considered to be of low nature conservation value overall given the relatively infrequent use and the relatively low numbers of notable birds involved.

The two key issues relating to birds and windfarms are the effects of developing the habitat which they use and the potential for collision with rotating turbine blades. The level of use of the site by species of high nature conservation value was unremarkable and, coupled with the considerable amount of suitable habitat elsewhere within the area surveyed and the wider landscape, the development of bird habitat is not thought to be an issue. Only one flight of a notable species was recorded at a height which it might collide with turbines. The assessment of the potential impacts of the proposed Andershaw Windfarm on birds therefore concluded that none would be significant.

Traffic and Transport

The main transportation impacts will be associated with the movements of commercial Heavy Goods Vehicles (HGVs) to and from the site during the construction phase of the development. Existing data was used to establish the proportion of additional HGV traffic on the road which would occur as a result of the proposed Andershaw windfarm, based on reasonable estimations of traffic generation. This exercise shows that at its peak during construction the windfarm will increase HGV use of the road by 11% for HGVs and 5% for light vehicles, and therefore further assessment was not required in accordance with standard practice.

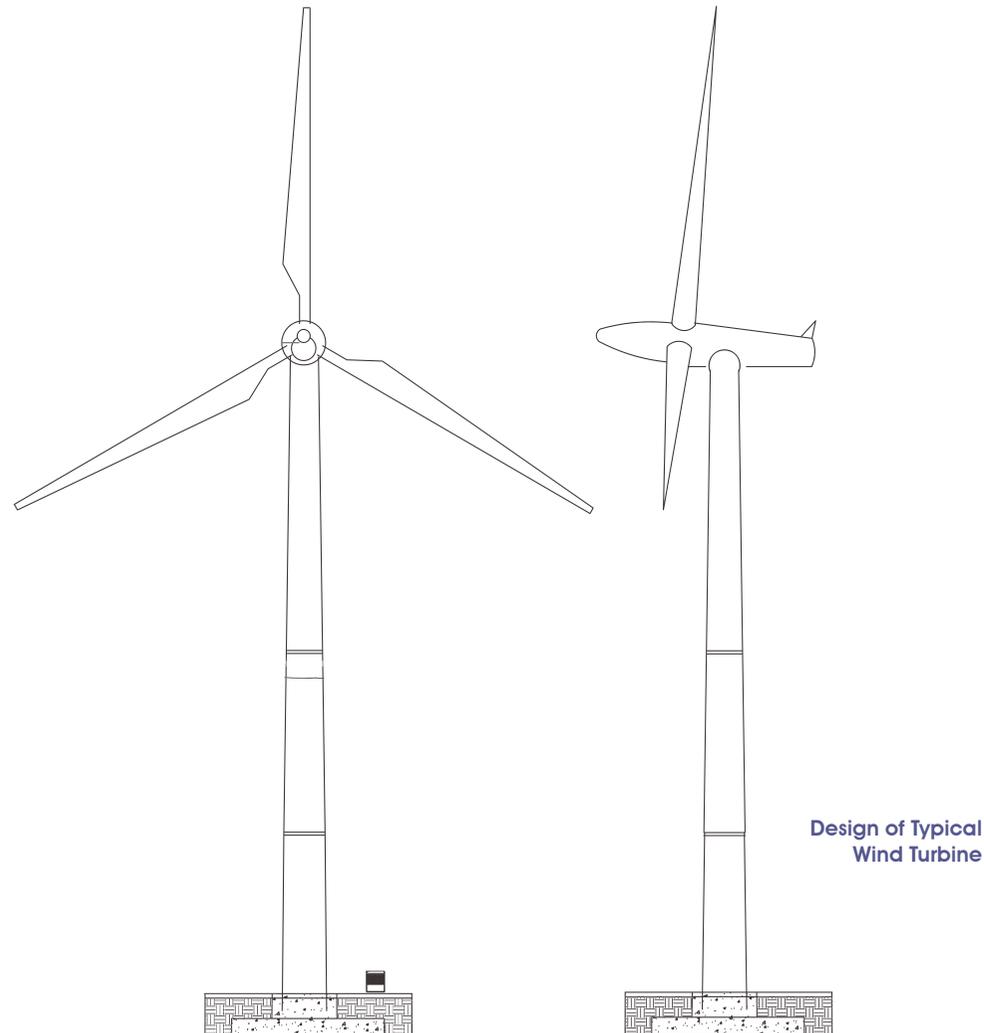
Photomontage of Proposed Andershaw Windfarm from B740 at Crawfordjohn



The Historic Built Environment (Cultural Heritage)

The construction of the windfarm will mean that two features of local cultural heritage importance would be removed. If this was necessary the remains would be preserved by record. The development would not impact directly on more important features. Monitoring during construction is proposed to record the potential for any further remains.

A study was also undertaken to establish what effect the windfarm would have on the setting of more distant cultural heritage features. The assessment has found that there would be no significant effect on the setting of any feature of national importance. In particular the setting of the designated cairn on Auchensaugh Hill was considered in detail and no significant effect is expected because:



- The windfarm will not dominate the setting of the monument;
- It will affect a relatively small portion of the view from the monument;
- Views of the windfarm will be away from those views thought to be key to the setting of the monument (namely towards Black Burn);
- Views towards the locations of other contemporary features, although affected, will not be prevented.

It is further noted that the windfarm is a reversible form of development which would only be in place for a short period relative to the age of some of the designated features.

Water (Hydrology)

The assessment has highlighted a number of potential impacts on the water environment, mostly during windfarm construction. The impacts are associated with a range of activities, including access track construction and wind turbine erection whereby for example soil or other materials can enter watercourses clogging them up. Best practice construction methods will be utilised to prevent such occurrences happening. In addition the windfarm design has minimised the potential for any effect by avoiding where practical water course crossings and any development in proximity to water features on site. The employment of mitigation measures, in accordance with current best practice, will ensure that there are no significant effects on the water environment.

Existing Infrastructure, Telecommunications, Television and Aviation Safety

An unacceptable effect in terms of infrastructure, telecommunications, television, aviation and safety would be one that significantly disrupts a service. There are no identified effects in this respect although there is currently uncertainty over whether there will be any effects on military and civil aviation interests which will only be resolved on submission of the planning application.

Socio Economics

The development constitutes a large investment in the area by the Developer and as such provides the opportunities for indirect positive economic investment. Whilst companies bidding for the work will do so through an open tender it is likely that many will sub-contract to local companies employing local people. Local businesses should also benefit from increased spend by the construction workforce during the period of construction.

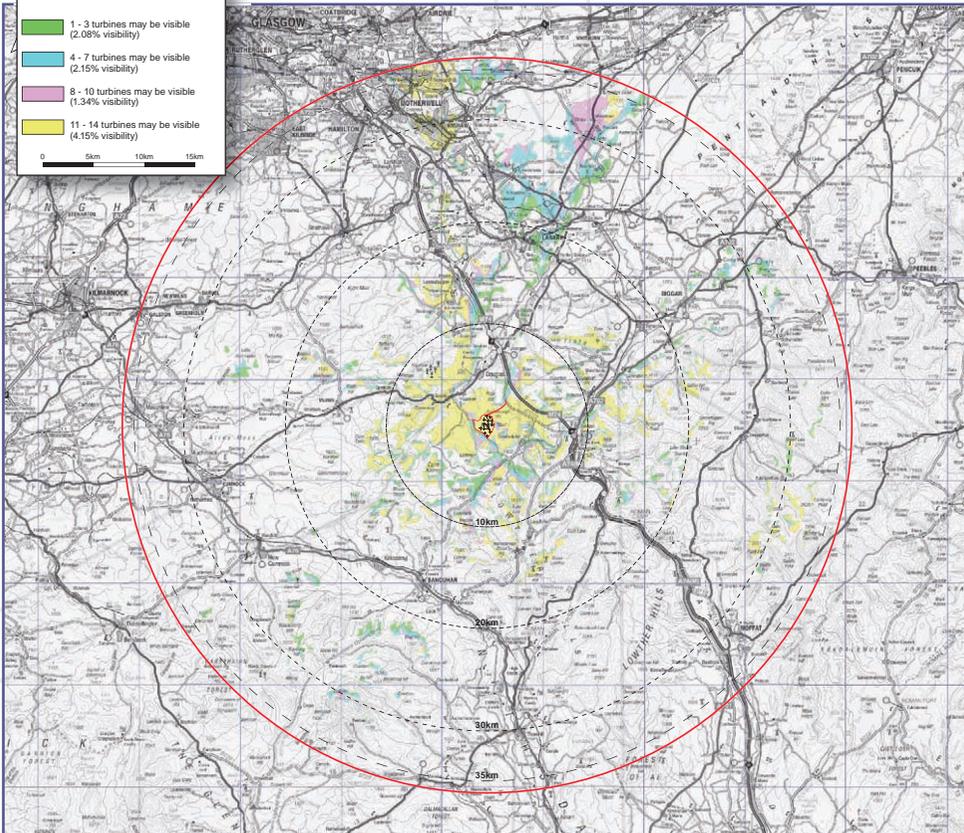
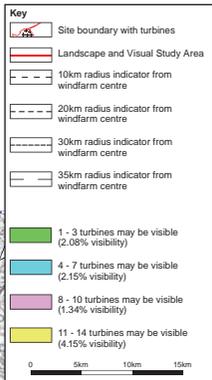
Whilst some local residents may currently have reservations about the proposed development, previous surveys at operational windfarms show that these fears may not be fully realised when the development becomes operational. Overall the windfarm is anticipated to have a neutral effect on residents' perceptions within the area. No adverse effects on existing businesses, either in the immediate vicinity or more widely in the tourism industry, as envisaged during either construction or operation of the windfarm.

The proposed development will provide a significant positive contribution to tackling global warming through reducing greenhouse gas emissions, in line with national policy objectives. Overall it is expected that Andershaw Windfarm will have a positive socio-economic impact.

Photomontage of Proposed Andershaw Windfarm from Red Moss Hotel



Photomontage produced for illustrative purposes only



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ZTV to Blade Tip

Conclusions

The development of a 14 turbine windfarm at Andershaw will contribute to both the UK government's target of reducing CO₂ emissions and the Scottish Executive's target of generating energy from renewable sources.

The Environmental Impact Assessment of the proposed Andershaw Windfarm has addressed a wide range of potential impacts on different aspects of the environment. The emerging findings of the assessment process have had a major part in the design of the windfarm and picking the final site layout. A range of other measures are proposed within construction and operational practices to address the potential environmental effects. The windfarm's major positive effect is its broader contribution to reducing greenhouse gas emissions in a sustainable way.

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