

## **Minch Moor Wind Farm: Non-Technical Summary of the Supplementary Environmental Information**

This document forms part of the information being presented in a Supplementary Environmental Information report by Vattenfall Wind Power Ltd in support of a proposal to construct, operate and decommission a wind farm within Elibank and Traquair Forest in the Scottish Borders. This provides additional information to that already submitted as an Environmental Statement in 2003 and Addendum in 2005.

### **OBTAINING COPIES OF THE SUPPLEMENTARY ENVIRONMENTAL INFORMATION**

A copy of the Supplementary Environmental Information may be obtained on a data CD or a paper copy of this Non-Technical Summary may be obtained free of charge by writing to Vattenfall Wind Power Ltd at the address below.

### **WHERE TO VIEW THE SUPPLEMENTARY ENVIRONMENTAL INFORMATION**

The Supplementary Environmental Information alongside the Environmental Statement (2003) and Addendum (2005) may be viewed at the following locations during normal office hours:

Scottish Borders Council Economic Development and Environmental Planning Council Headquarters Newton St. Boswells TD6 0SA Tel (01835) 824000	Scottish Borders Council Council Offices Rosetta Road Peebles EH45 8HG Tel (01721) 720153
Walkerburn Post Office 28 Galashiels Road Walkerburn Peebleshire EH43 6AF	Scottish Borders Forest District Weavers Court Forest Mill Selkirk TD7 5NY
Vattenfall Wind Power Ltd Bridge End Hexham Northumberland NE46 4NU	Innerleithen Library Buccleuch Street Innlerleithen EH44 6LA
Peebles Library Chambers Institute High Street Peebles EH45 8AG	

The purpose of this document is to present information which is contained in the full Supplementary Environmental Information report in non-technical language. It includes a description of the proposal and a summary of the expected environmental impacts.

The document is divided into four sections:

- Section 1 provides a summary of the proposal
- Section 2 summarises the revised impact assessments
- Section 3 provides a conclusion
- Section 4 gives details of how to register your view

## **SECTION 1 – SUMMARY OF THE PROPOSAL**

### **Background to the Proposal**

In April 2003 an application, supported by an Environmental Statement, was made to Scottish Borders Council seeking consent to construct and operate a wind farm at Minch Moor in Elibank and Traquair Forest, near Innerleithen. Subsequently, in January 2005, by way of an Addendum, the number of wind turbines was reduced from 14 to 12 to address the concerns of the Scottish Borders Council with respect to visual impacts.

As of the current date, there has been no decision regarding the planning application. Therefore, a Supplementary Environmental Information (SEI) report has been produced to be submitted to the Scottish Borders Council. This SEI supplements the information in the Addendum (2005) and the Environmental Statement (2003) and should be read together with both documents.

### **The Proposal**

Figure 1 presents a plan of the proposal. The site lies just south of the town of Innerleithen, near Peebles in the Scottish Borders. The application to Scottish Borders Council is to construct a wind farm made up of 12 wind turbines in Elibank and Traquair Forest. The table below outlines the main infrastructure elements of the proposal.

<b>Infrastructure</b>	<b>Summary Description</b>
12 Wind Turbines	Wind turbines with a power output of up to 2 megawatts, with a maximum height to tip of up to 100 metres (330 feet)
12 Wind Turbine Hardstandings	An area at each wind turbine, needed for the crane and wind turbine delivery vehicles. Each area would be maximum of 20 metres (66 feet) x 37 metres (121 feet)
12 Wind Turbine Foundations	Reinforced concrete foundations each measuring 16 metres (52 feet) x 16 metres (52 feet) x 2 metres (7 feet), buried beneath the ground
1 Temporary Compound	A small compound which contains temporary site accommodation, welfare facilities, parking and a bunded storage area
1 Connection Building	A compound measuring 15 metres (50 feet) x 10 metres (33 feet) x 5 metres (16 feet) which contains a transformer and other electrical equipment
1 Concrete Batching Plant	Supply of concrete for the foundation construction
5 Borrow Pits	On-site sources of stone for the construction of roads and wind turbine foundations
1 Permanent Wind Monitoring Mast	A 50 metre (165 feet) monitoring mast fitted with anemometry and monitoring equipment at various intervals

### **Operation of the Wind Farm**

The electricity produced by each wind turbine would feed through an underground cable and into a switchroom on site. The connection to the local electricity network would extend from the switchroom in an easterly direction.

### **Construction Activities**

Construction of the wind farm would take approximately 10 months.

Stone would be required for the construction of roads, hardstandings and foundations. Using stone from within the site would reduce the construction traffic on public roads. Similarly, concrete for construction would be mixed on site in a temporary batching plant to reduce traffic.

The proposal is based on a 20 year operational lifetime for the wind farm, followed by decommissioning. Any further use of the site for wind energy generation would be the subject of a further planning application.

### **Development Context**

There is growing concern about the rise in levels of greenhouse gases and the changes they cause to the global climate. Burning fossil fuels is a major contributor to global greenhouse gas emissions and reducing their use and increasing the amount of electricity generated from renewable energy sources is seen as a vital part of reducing these emissions.

The Scottish Government is committed to increasing the amount of electricity generated from renewable energy sources. In June 2008 they published a consultation paper entitled '*Adapting our Ways: Managing Scotland's Climate Risk*'. The paper acknowledges that '*climate change is one of the most serious threats facing Scotland and the world today*' and that '*It has the potential to impact significantly upon everyone living and working in Scotland*'.

## **SECTION 2 – SUMMARIES OF ENVIRONMENTAL TOPICS**

### **Ecology**

Ecology surveys were carried out to update the previous surveys that were undertaken in 2002-2005. The surveys focussed on the habitats present at the site and bats.

The habitat surveys found that the area had changed very little since the previous surveys were carried out. The proposed wind farm is within a commercial forest, an artificial habitat which remains largely unchanged for many years except during periods of felling. The Phase I habitat survey identified two nationally rare plant species. Both of these plants, pale forget-me-not and hairy stonecrop, are protected under UK legislation. The proposals for the wind farm would not have an impact on these plants as they are not found within the area of forest that would be felled for the wind turbines.

Four bat species were identified as feeding in the area. These were common pipistrelle, soprano pipistrelle, Natterer's and brown long-eared bats. These are all typical species of this type of habitat in this region. These bat species are not classed as 'high risk' species when considering collision with wind turbines and are unlikely to come within close range of the wind turbines at the Minch Moor site. It is possible that bats would be disturbed by felling trees and constructing the wind turbines but once operational, this disturbance would cease.

Therefore, overall, the proposed wind farm is not considered to have any major significant impacts on the ecology of the area. An ecological clerk of works would be on site during construction to ensure protection of any features of ecological interest.

### **Ornithology**

The site is covered by commercial forestry, which is not generally a habitat with a high nature conservation value. An assessment has been made of the likely effects of the wind farm on the bird population at Minch Moor with particular emphasis on golden eagle and black grouse.

Golden eagle surveys were carried out because there was a reported sighting of a golden eagle in 2005 and an unsuccessful breeding attempt in 2006. However, since 2006 no golden eagles have been seen.

Eight black grouse were recorded on two active leks outside the site boundary. No birds were seen within the site but the habitat within the proposed wind farm area is unsuitable as the birds generally do not utilise coniferous forestry. There is the potential for black grouse to be disturbed by noise during the construction of the wind

farm but this would be a temporary impact. A Habitat Management Plan (HMP) has been devised to enhance the existing habitat outside of the wind farm area.

Other notable species included incidental sightings of goshawk and osprey.

The wind farm area is not suitable habitat for upland waders and none were recorded within the boundaries of the development.

By following best practice, felling outside the breeding season and the implementation of a Habitat Management Plan there would be no significant impacts on bird species.

## **Hydrology**

There are a number of small watercourses throughout the area, all of which flow into the River Tweed and Yarrow Water, via the Finland Burn, Armour Burn, Lewenshope Burn and Scaddow Burn. The site does not lie within a floodplain. The water quality is good in the area.

There would be three new places where roads would cross streams. Such water crossings would be constructed in compliance with legislation.

There are four private water supplies near to the site.

The potential impacts at the site include increasing the suspended solids or pollutant levels in the watercourses and increasing the flood risk of the site. However, these would be mitigated by general good practice construction methods.

The assessment has shown that with appropriate site procedures, mitigation measures and water monitoring, there would be no impact on watercourses or local water supplies.

## **Cumulative Landscape and Visual**

To assess the cumulative landscape and visual impacts of the proposed wind farm, 15 viewpoints were considered, specifically looking at the positions from which both Minch Moor and at least one other wind farm could be seen. In particular, viewpoints were considered from which the proposed Broadmeadows Wind Farm could be seen.

Overall, from most viewpoints, although multiple wind farms would be visible, there would be no significant cumulative landscape effects due to limited combined visibility and large separation distances. However, there may be some potentially significant cumulative landscape effects from a few viewpoints where six to eight wind farms would be visible on the landscape.

There would be no significant cumulative effects on the Moorfoot Hills or Lammermuir Hills Areas of Great Landscape Value. However, there may be some potentially significant cumulative landscape effects on parts of the Tweedmuir Hills/Upper Tweeddale and Eildon Hills/Bowhill Areas of Great Landscape Value although these would likely be limited to certain areas of high ground or areas where other proposed wind farms would be visible.

There may be some limited significant cumulative, but not unacceptable, effects on some nearby Historic Gardens and Designed Landscapes.

No residential settlements in the area are expected to be subject to any significant cumulative effects. Furthermore, there are no significant cumulative effects predicted from surrounding roads.

The layout of the proposed Minch Moor Wind Farm was altered in 2005 in order to mitigate potential significant effects on the Tweed Valley. The current proposed layout is predicted to have no significant cumulative effect on the Southern Upland Way, Clattering Path of Duchess Drive over and above the significant effects as a result of Minch Moor alone.

The conclusion of the cumulative landscape and visual assessment is that the proposal would give rise to a small number of significant, but not unacceptable, cumulative landscape and visual effects.

### **Cultural Heritage**

The study for this Supplementary Environmental Information report concentrated on sites which were not reported previously. The assessment used various sources of information and a walk-over survey to identify any sites of cultural heritage.

15 sites of cultural heritage interest were identified that had not been reported in the Environmental Statement 2003. In total there are 33 Scheduled Monuments (SMs), 12 Category A Listed Buildings (one is also a SM), 62 Category B Listed Buildings and three Conservation Areas within 15 km of the proposed Minch Moor Wind Farm.

There are no predicted significant impacts on the settings of any of the SMs or Listed Buildings. Overall, there would be only minor/negligible impacts on features of cultural heritage, which could be easily mitigated through good practice working methods.

### **Noise**

Baseline noise measurements were recorded using a Sound Level Meter at the three nearest dwellings. Predicted noise levels are within acceptable limits and there should be no loss of amenity as a result of the wind farm.

The report includes an assessment of the cumulative impacts of the proposed Minch Moor Wind Farm with the proposed Broadmeadows Wind Farm. The cumulative noise impact was considered to be insignificant.

### **Socioeconomics**

The socioeconomic assessment considered the impact of the proposed wind farm on the local economy and tourism.

The proposed Minch Moor Wind Farm would benefit local employment. Local firms would be encouraged to tender for works at the proposed site and there would likely be increased occupancy in local hotels and bed and breakfasts for construction teams.

The area is used by walkers and mountain bikers. There would be a neutral impact on tourism and recreation in the area. The scheme has been designed to minimise landscape and visual impact and disruption to recreational users.

## **Peat Stability**

A peat stability assessment was carried out for the development to determine whether there was any peat on the site and identify any risks of peat slide.

There are no significant deposits of peat within the site boundary and therefore it is considered unlikely that peat instability would occur at the proposed wind farm.

## **Traffic**

To assess the traffic impacts upon the area, an assessment was undertaken of the proposed traffic associated with the development and how this would increase the traffic on local roads. The maximum expected increase in HGV traffic would be 8% to 11%.

It is likely that the wind turbine components would be delivered to the Port of Grangemouth by boat and then transported by road to the site. In order to reduce the load on the Walkerburn and Innerleithen bridges, a one-way system would be used for traffic associated with the proposed development.

Two access routes were considered for the site and it was concluded that the Plora access would be the preferred route. The Glenbenna access would remain in use for timber lorries removing felled trees from the site. Existing forest roads within the forest would be used. Upgrading of these roads, where required, would use stone won from within the site.

The construction period would be a temporary, fixed term and therefore this increase in traffic would also occur on a temporary, fixed term basis. Once construction is completed, there would only be a few vehicle movements per year associated with maintenance of the wind turbines.

## **SECTION 3 – CONCLUSIONS**

The assessments that have been carried out have provided evidence that these proposals would not create any significant impacts in terms of ecology, ornithology, hydrology, cultural heritage, noise, socioeconomics and traffic. There would potentially be some significant cumulative landscape impacts. However, it should be noted that the cumulative landscape and visual assessment has been carried out on the assumption that all the wind farm proposals currently in planning would gain consent and therefore the assessment presents a worst-case scenario.

These proposals are considered to be beneficial to the local economy, in terms of increased income generation. The implementation of a Habitat Management Plan for black grouse is considered to be highly beneficial for a species which is currently in decline throughout Scotland.

All current environmental legislation and planning policy would be adhered to and good practice guidance would be followed at all times to ensure no significant negative impacts from the development.

## **SECTION 4 – HOW TO REGISTER YOUR VIEW**

Written comments should be sent to:

Scottish Borders Council  
Economic Development and Environmental Planning  
Council Headquarters  
Newton St. Boswells  
TD6 0SA