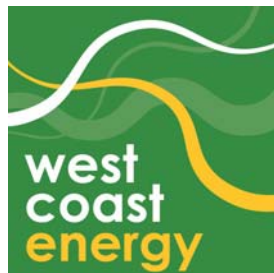




Millennium Wind Farm

Section 36 Extension

Non – Technical Summary



INTRODUCTION

The Environmental Statement (ES) supports an application by Millennium Wind Energy Ltd to The Scottish Government for consent under Section 36 of the Electricity Act 1989 for the construction of a six turbine extension to the Millennium Wind Farm on elevated land to the west of Fort Augustus and north of Loch Garry in the Highlands of Scotland. The National Grid Reference for the centre of the site is 227763, 806929.

West Coast Energy (WCE) has been responsible for the planning and design of the Millennium Wind Farm Extension and for the preparation of the ES. WCE is a company specialising in renewable energy development, which is based in Edinburgh and North Wales. The Company has successfully managed both on-shore and off-shore wind farm projects and are acting as agents and project managers for the proposed development.

The scope of the ES has been based on previous correspondence with the Scottish Government, The Highland Council and other statutory and non-statutory agencies, and provides environmental information in the process of the determination of the wind farm proposals.

The ES has been prepared in three volumes as follows: -

Volume 1 contains the text of the environmental impact assessment and relevant appendices;

Volume 2 contains the appendices to the reports in Volume 1

Volume 3 contains the maps, figures and drawings that support the assessment presented in Volume 1;

A Non-Technical Summary of the submitted environmental information contained in Volumes 1, 2 and 3 is also included.

Copies of the Non-Technical Summary are available free of charge from the Highland Council or West Coast Energy Ltd.

Copies of the ES can be purchased at cost from West Coast Energy Limited for £150.00. or in CD format for £20.00. Contact: Simon Green, West Coast Energy Ltd, The Long Barn, Waen Farm, Nercwys Road, Mold Flintshire CH7 4EW. (Tel: 01352 757604, e-mail simon.green@westcoastenergy.co.uk)

SITE SELECTION

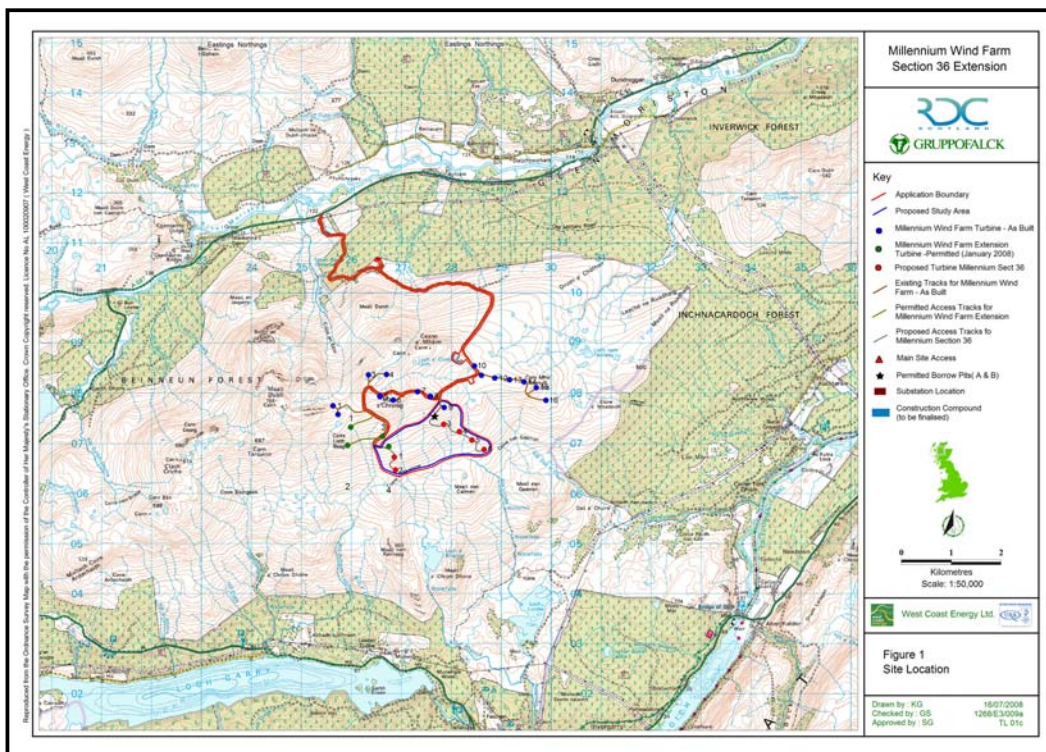
The proposed wind farm extension is located approximately 8km to the west of Fort Augustus on the southern flanks of a small range of hills separating Glen Garry and Glenmoriston and immediately adjacent to 16 consented turbines which comprise Millennium Wind Farm and the four turbines which comprise the first extension to the site.

Access to the site is taken from the forestry track leading from the A887, which is the access to the consented wind farm. Views from the site overlook the lower valley landforms of Glen Garry to the south and the Great Glen to the east as well as general views to surrounding upland and mountain areas. The Study Area, identified on Figure 3, of approximately 186 hectares is located within the boundaries of The Highland Council Region. The application area is entirely within the boundary of the Achlain and Aberchalder Estates. All of the proposed turbines are located on the Aberchalder Estate. The application area is subject to rough grazing for deer, cattle and sheep. The Achlain Estate manage the stalking rights over both estate lands.

The following criteria were assessed in relation to the site:- The wind resource, the connection to the local electricity distribution system, National and Local Planning policy, nature conservation, landscape designations, proximity of dwellings, existing transmission and microwave links, highway access, archaeological features, historic buildings, hydrological and hydrogeological issues, landowner participation and safety considerations.

The design evolution of the Millennium Wind Farm Section 36 Extension site has been influenced by a number of environmental factors. Although it is acknowledged that, in practice, every wind energy project has some impact on the locality, it was considered that the Millennium Wind Farm Section 36 Extension turbines offered the following environmental and economic benefits in its favour:

- The site is not subject to any national designations for landscape or ecological reasons and there are no cited archaeological features contained within the site.
- On site wind resource analysis has confirmed the suitability of the site for a commercial wind farm.
- A 132kV grid network and sub station exists in close proximity of the extension site.
- Detailed environmental assessment studies have not identified any overriding constraints which cannot be dealt with by appropriate mitigation.
- Significant efforts have been made to ensure that the project design reflects the findings and recommendations of the extensive consultations and assessments. In addition, due consideration has been given to National and Local Planning policies, and the need to mitigate against any significant environmental effects.



PLANNING POLICIES

Consideration of current planning policy indicates:

- No conflicts between the Development Plan Policies, issued by The Highland Council, and the proposed development are anticipated;
- No national or local statutory designations are directly affected by the proposed development ;
- There is minimal additional visual and landscape impact to the permitted Millennium Wind Farm, with the additional benefit of minimal cumulative effect compared with other schemes.
- The existing on-site compound, sub - station and access tracks at the permitted scheme will be utilised thereby minimising disturbance on the extension site.
- The extension allows for the maximum generation capacity from the site to be transmitted from the site via the 132kV grid connection
- There is minimal additional impact on the ecology, ornithology, archaeology, noise and hydrology at the site.
- There are no additional impacts on electromagnetic interference at the site from the permitted Millennium Wind Farm.
- The proposal complies with relevant planning guidance and policy

Taking into account the National and Local policy context which seeks to promote renewable energy, the extension to the Millennium Wind Farm proposal will make a notable contribution to Scottish Executive and UK Government renewable energy targets, as well as being of potential socio - economic benefit to communities within the Highlands region.

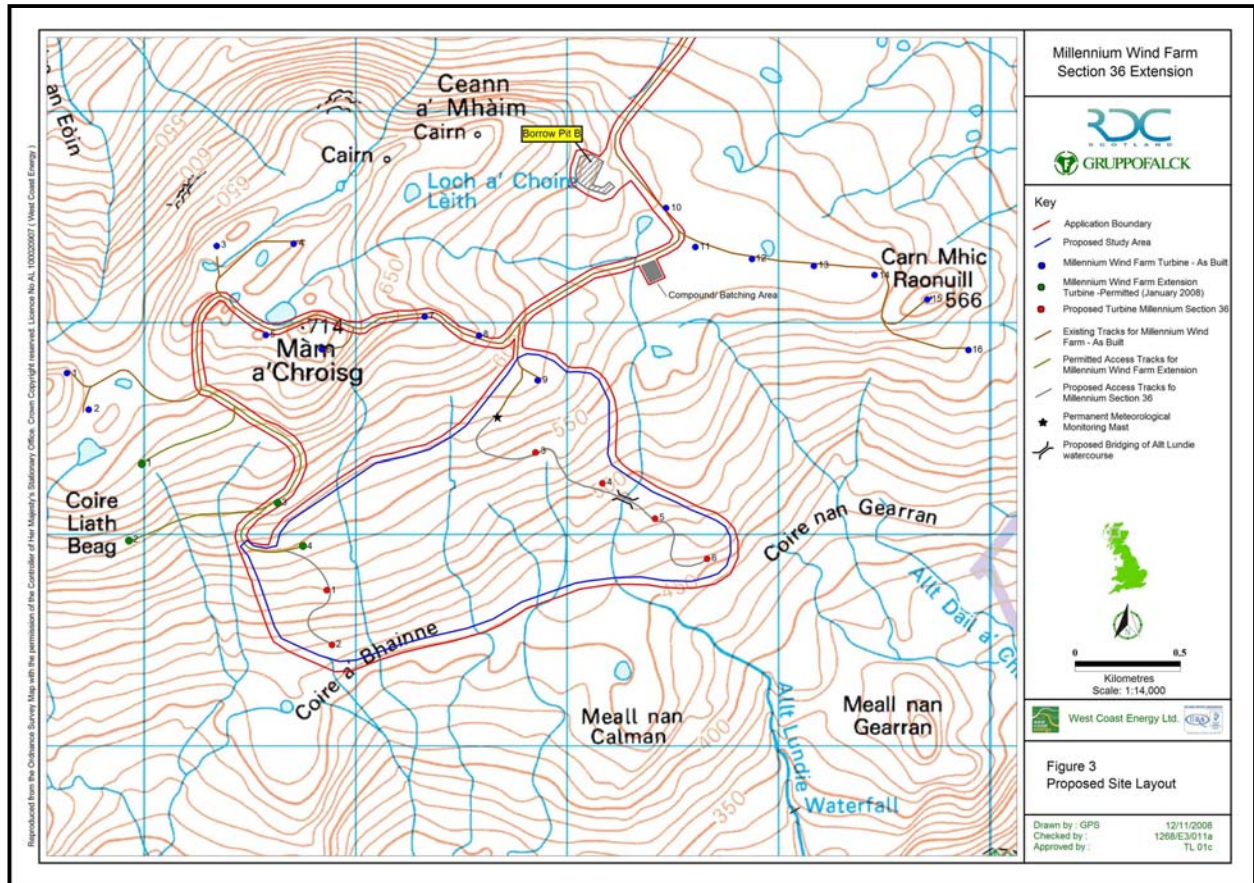
PROJECT DESCRIPTION

The proposed Section 36 Extension to the permitted Millennium Wind Farm will comprise of 6 additional wind turbines of modern design, each having a three bladed rotor of 90 metres (297 feet) in diameter supported on a tapered cylindrical tower to give a height of 80 metres (262 feet) to the rotor hub and maximum 125 metres (410 feet) to the blade tip. Each wind turbine has a maximum power output of approximately 2.5MW. All of the turbines comprising the permitted wind farm, first extension and this proposal are identical in nacelle and blade design. The hub heights vary between the various phases. The original sixteen towers are 70 metres to hub. The first extension and this proposal both incorporate 80 metre towers.

The topographical, technical, planning and environmental considerations of the application site have resulted in the wind farm design as shown on the site layout plan. The wind turbines are spaced so as to minimise energy loss due to wind turbulence and to avoid areas of ecological and hydrological sensitivity.

Each turbine will be linked by an access track. The additional access track required will be approximately 2.4 km long and 5 metres wide. The turbines will be connected by underground cables, which will take power from each turbine which will then be transmitted to the wind farm control building where it would then be distributed to the Scottish and Southern 132kV electricity distribution system.

It is estimated that the total permanent land take associated with the additional 6 extension turbines, site tracks and hardstandings will be approximately 1.5ha.



LANDSCAPE & VISUAL ASSESSMENT

The landscape and visual assessment has assessed the potential effects of the proposed six turbine extension to Millennium Wind Farm on landscape and visual receptors within the region. This assessment has established that the proposed extension to the consented Millennium Wind Farm will be viewed as part of the consented array not resulting in significant effects on the landscape and visual baseline conditions during construction and operation phases of the wind farm save for localised effects upon landscape character in the immediate vicinity of the proposed turbines. The direct effects on landscape fabric as a result of the proposed extension are not considered to be significant.

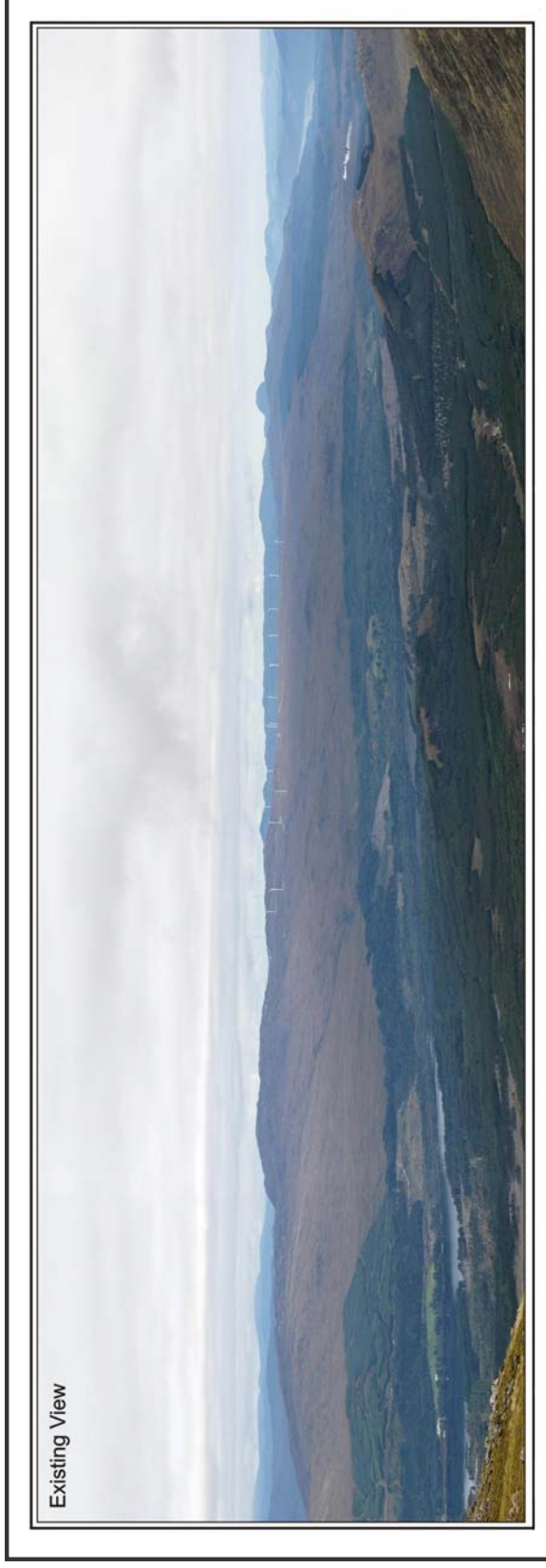
The proposed wind farm extension has been designed to incorporate standard mitigation measures in relation to the design of the turbines and site-specific mitigation measures and has been designed to compliment and be seen as part of the same development as the adjacent consented Millennium turbines. The layout has been optimised in respect of technical, economic and environmental constraints including landscape and visual amenity considerations.

The proposed wind farm extension is considered to be well sited with due consideration to landscape and visual effects in relation to the other environmental constraints.

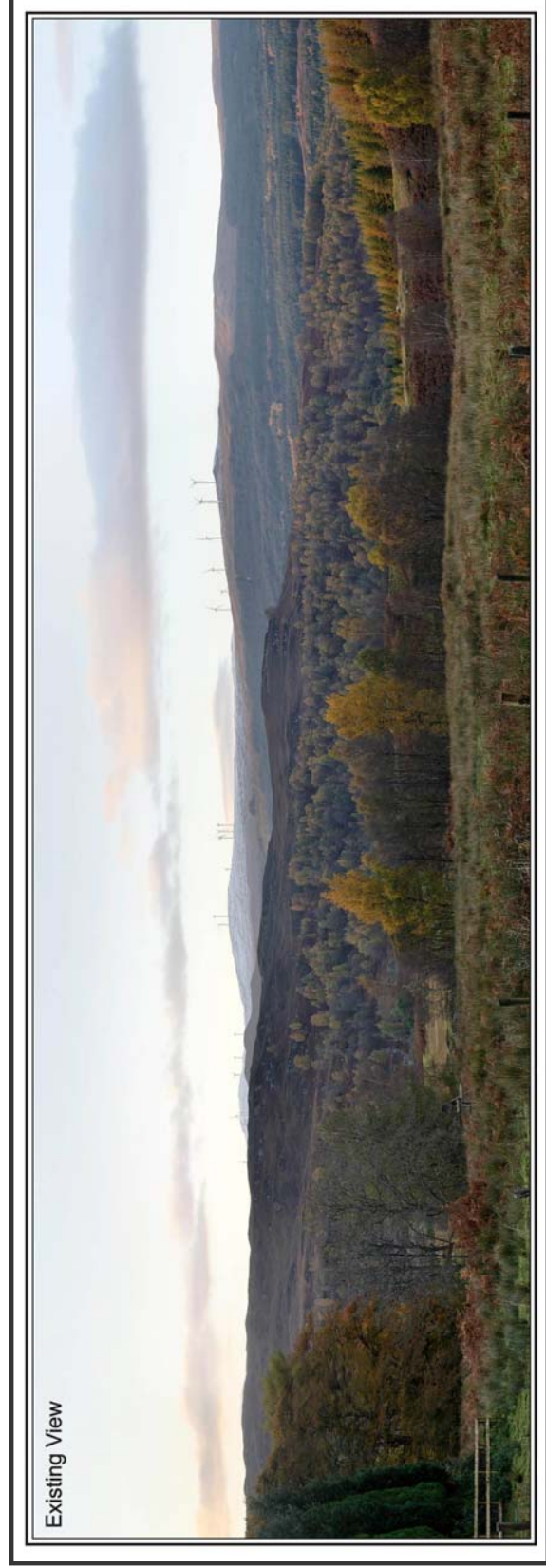
Having carefully examined the potential effects on landscape and visual amenity associated with the proposed Millennium Wind Farm Extension and the creation of a larger wind farm development, it is considered that the proposals are acceptable in this location in landscape and visual terms.



Viewpoint 17b: Meall na h -Eilde



Viewpoint 26c: A82 Thistlestop Cafe



ECOLOGICAL ASSESSMENT

This chapter provides an assessment of the ecological impacts of the Section 36 Extension to the consented Millennium Wind Farm.

Desk and field studies were completed to identify the main ecological receptors within and around the site. Desk studies included consultation with a range of consultees, including Scottish Natural Heritage, Highland Biological Recorder, Fisheries Research Services, Ness & Beaully Fisheries Trust and the Highland Council Biodiversity Officer. Field surveys completed within the 186ha development site and its surroundings included surveys for botany/habitats, otter, water vole and reptiles, and habitat-based evaluations for bats and amphibians.

There are no statutory designations within or adjacent to the proposed development area; however it is situated approximately 2.8km from the West Inverness-shire Lochs Site of Special Scientific Interest (SSSI) and proposed Special Protection Area (SPA).

The botanical community assemblages within the proposed development area are dominated by wet heath and occupy approximately 70% of the site. The remainder of the site comprises patches of blanket bog and dry heath which form small localised fragments of habitat within the proposed development area. Other habitats include small pockets of alkaline fen, acid/neutral flushes, bryophyte dominated springs, bog pools and two very small fragments of montane or alpine heath. The impact of the scheme following mitigation would result in a Slight Adverse impact on: wet heath, blanket bog, and base-rich flushes. Whilst the mitigated impact on dry heath and would be Neutral.

In the absence of mitigation no impacts are predicted on otter, water vole, reptiles, or bats; however it is probable that without mitigation there would be a slight adverse impact on fish. Mitigation has therefore been recommended, and in light of this the residual impact to all species would be assessed to be neutral.

Following implementation of the proposed mitigation measures, the conclusion of the Ecological Impact Assessment is that no significant impacts are predicted on fauna and habitats identified within the extension development site, whether during construction, operation or decommissioning.



ORNITHOLOGICAL ASSESSMENT

This provides an assessment of the impacts of the proposed Millennium Wind Farm Section 36 Extension on ornithology.

Desk and field studies were completed to identify the main ornithological receptors within and around the site. Desk studies included consultation with a range of consultees, including Scottish Natural Heritage and the RSPB. Ornithological surveys completed within the 1.88km² application boundary and a larger study area encompassing the existing wind farm and its first extension were carried out in Summer 2008. Similar but less detailed studies had been completed in 2005 / 2006.

There are no statutory designations within or adjacent to the site, but it is situated within 2km of the proposed West Inverness-shire Lochs Special Protection Area (SPA) which is an internationally important sites for breeding black-throated diver and common scoter. The development will have no impact on the integrity of the pSPA site or either of these species.

Seven avian species of high conservation concern were found to utilise the Millennium Wind Farm study area including golden eagle, hen harrier, peregrine, merlin, short – eared owl, golden plover and dunlin. The proposal is not anticipated to impact on any of the raptor species and impacts on the two upland waders are anticipated to be no greater than of slight adverse significance.

Following implementation of the proposed pre construction mitigation measures, it has been assessed that no significant impacts are predicted for any bird species identified within the development area during construction, operation, and decommissioning.



ARCHAEOLOGICAL ASSESSMENT

An archaeological assessment has been carried out by Headland Archaeology Limited. The key objectives were to: identify and evaluate cultural heritage features that may be affected by the Millennium Section 36 Wind Farm Extension and; assess the direct and indirect impacts of the construction, operation and decommissioning of the wind farm extension on these sites;

The wind farm development was considered as the inner study area, a 5km buffer considered as the middle study area and a 35km buffer considered as the outer study area.

Having completed a desk study and site walkover it has been concluded that there are no Scheduled Ancient Monuments, Listed Buildings, sites with non statutory designations or other identified cultural heritage sites within the Inner Study Area

Two Scheduled Ancient Monuments one Listed Building and four Highland Council Archaeology Service NSR 'sites of schedulable quality' fall within the Middle Study Area. It is considered that, at worst, the extension turbines will have an impact of negligible significance on one of the schedulable sites.

No sites of exceptional sensitivity deemed to be at risk of impacts upon setting were identified within the 35 km study area.

Given the altitude and the unsustainable nature of the topography and that previous walkover surveys have recorded sites upstanding, the potential for unrecorded cultural heritage features within the Inner Study Area is considered to be negligible and as such no further archaeological work is proposed for this area.



GEOLOGY, HYDROLOGY, HYDROGEOLOGY AND SOILS

Construction of the wind farm involves several phases and activities which may potentially affect the hydrology, hydrogeology and soils of the receiving environments. These activities have been identified and an assessment of their potential effects made.

The identified sensitive receptors are surface watercourses, groundwater, drift deposits of peat, private water supplies and fisheries.

Groundwater is a very sensitive receptor because flow is through fractures only and there is little opportunity for attenuation of contaminants. However, the bedrock is of relatively low productivity as an aquifer, so the volumes of groundwater present are likely to be generally low.

The drift deposits of peat, with depths averaging 0.8m across the site, are considered, following the recommended mitigation, to be at a negligible to low risk of instability from construction and operation activities.

One identified private water supply is considered to be at risk of contamination during construction activities, as its supply is abstracted directly from the Allt Achaidh Luachraich watercourse which collects surface runoff from part of the development site. An appropriate monitoring regime for this supply will be agreed with SEPA and Highland Council prior to commencement of construction works. In the unlikely event that construction works lead to the temporary deterioration of the supply, an alternative supply will be provided. Damaged filters will be replaced in the unlikely event that the supply becomes impaired with sediments displaced during construction. A single bridge crossing is proposed over the Allt Lundie.

The payback time for CO₂ emissions from peat oxidation is estimated at between 0.9 years and 1.7 years, which is significantly less than the 25 year life time of the development.

The lower River Garry is an important salmon fishery and salmon are also known to be present in the lower reaches of Aldernaig Burn. Trout are likely to be present throughout the Aldernaig Burn catchment. These fisheries interests will be sensitive to any sediment and chemical contamination originating from the wind farm development site.

Mitigation measures have been proposed which will reduce the likelihood and magnitude of the potential effects on all of the sensitive receptors, such that any adverse residual effects are assessed as being of minor significance or lower. These effects are not considered significant in terms of the EIA regulations. In order to ensure that these mitigation measures are carried out, environmental specifications and objectives will be included in the tender documents so that all contractors can allow for mitigation measures in their tender costs. A Construction Method Statement will be drawn up and on-site supervision put in place to ensure that the mitigation measures are adhered to by all site contractors. Continued consultation with SEPA will be carried out in order to ensure on-going agreement regarding the proposed mitigation measures.

INTERFERENCE WITH RADAR, FLIGHT SAFETY, TELEVISION, RADIO AND MICROWAVE PATHS

Our research has revealed that there will be no conflict with military or civilian radars or regulated aircraft flight corridors. The site is not within any military flight training area and interference with navigational equipment is not anticipated.

A report was commissioned by JWD Ltd to assess the effects of the permitted Millennium scheme and also the four turbine first extension on national UHF domestic television reception. This report concluded that there was likely to be no effect. That position is unlikely to change for the six extension turbines since they are generally lower on the slope. Millennium Wind Energy Limited will, however, bear the cost of further investigations, if necessary, to establish the extent, of any interference and to expedite appropriate remedial action. These matters can be controlled by appropriate conditions or by legal agreement.

Through consultation with communications agencies, it is predicted that there will be no disturbance to other communication systems, including those used by the emergency services, utility operators and mobile telephone service providers.



NOISE ASSESSMENT

An assessment has been completed on the noise effects that are predicted to occur due to the construction and operation of the proposed Section 36 Extension to the Millennium Wind Farm.

The assessment has taken account of current guidance which is contained in Planning Advice Note (PAN) 56: 'Planning and Noise', Planning Advice Note (PAN) 45: 'Renewable Energy Technologies', ETSU Report ETSU-R-97: 'The Assessment and Rating of Noise from Wind Farms' and relevant British Standards and other documents relating to noise and its effects upon humans.

This noise assessment shows that the cumulative noise effect from the permitted wind farm and the proposed second extension, assuming that all turbines are operating at normal speed at the same time, would not exceed any of the target criteria defined in ETSU-R-97, controlled by the current Planning Condition issued by the Highland Council. Separate target criteria have been developed for both night-time and daytime periods in order to protect both the sleep of local residents and to protect the outdoor amenity of the area.

Predicted levels from candidate turbines at the identified sensitive receptors are below these criteria during day and night, ensuring an acceptable level of protection to the amenity of local residents.

In terms of construction noise, the distances from the proposed working area to the nearest properties are large, so the likelihood of disturbance due to construction noise to be very small. Guidance given in BS5228: 1997 will be used to ensure that best practicable method of minimising noise on the site will be adopted.

The distances between the proposed wind farm and the nearest residential properties to the north of the site are large enough that there will be no significant vibration impacts. This also applies to those receptors that lie to the south of the wind farm, Munergie and Leacan Dubh.

As a result, it is not anticipated that there will be any significant disturbance from noise or vibration at properties within the vicinity of the proposed extension.



COMMUNITY BENEFIT

Economic benefit will be provided to the local area during the construction and operation of the wind farm, but in addition, in order to provide additional community benefit, Millennium Wind Energy Limited proposes to work with the local community to expand the existing community wind farm trusts. This will enable support to be given to local social, educational and environmental initiatives.

OVERALL CONCLUSIONS

UK Government and Scottish energy policy provides for a presumption in favour of renewable energy projects unless a particular proposal would cause demonstrable harm to interest of acknowledged importance.

In the case of the Millennium Wind Farm Section 36 Extension it is submitted that the main issue to be considered is the desirability and benefits to be gained from exploiting a clean sustainable energy resource, weighed against any perceived material impact on landscape character, visual amenity and nature conservation and ornithological interests.

The Development Plan in this case consists of the Highland Structure Plan and the Lochaber Local Plan. Both the Structure Plan and the Local Plan support the generation of electricity from renewable sources and seek to provide for wind farm development within areas which are least constrained in planning terms. The Environmental Impact Assessments reported on in this Environmental Statement have provided detailed information to conclude that there are no significant conflicts between the development and the relevant policies of the Structure and Local Plan.

Importantly, the proposed wind farm development site is of a high quality design and has been carefully sited within the landform. The Highland Structure Plan Policy E1 refers to Distributed Renewable Energy Development and Policy E2 refers to Wind Energy Development and supports developments such as this. The development complies with the requirements of this policy.

The proposed Section 36 Extension to Millennium Wind Farm lies outwith any landscape character designations. The proposed extension will not affect archaeological sites or any other Listed Buildings or Conservation Areas or Historic Gardens and Designed Landscapes. Impacts upon nature conservation resources will be minimal and enhanced where possible.

Independent consultants have carried out a detailed comprehensive assessment of the environmental effects of the development. This assessment as reported in the E.S. has concluded that there will be no significant effect in relation to noise, cultural heritage, safety and physical (including access) effects of construction. There will be some effects on the local landscape character, on visual impact and in terms of local recreational amenity. In addition there will be some minor impacts on nature conservation and ornithological interests but it is submitted that these impacts can be mitigated by good construction management procedures secured by legal agreement and suitable conditions.

It is accepted that there will be some minor 'very' localised effects relating principally to visual impact and effect on landscape character. However the E.S. demonstrated that these effects are not unacceptably adverse, and as such the development is in accord with the Development Plan. If the alternative view is taken then significant material weight must be attached to UK Government and Scottish energy policy and

the desirability and benefits to be gained from the additional generation of clean green energy from the Millennium Wind Farm Section 36 Extension.

Valency is a way of describing whether people are in favour of wind energy development (positive valency) or are opposed to wind energy developments (negative valency). Valency can be influenced by aesthetic, perceptual and financial considerations, and also the understanding of the performance of a wind turbine.

Time is an important factor as public perception, or valency, can vary over time, particularly as the result of changes to people's understanding of a subject or their increasing familiarity with a particular scenario.

It is considered that the proposal can provide significant environmental and economic benefits to the local area and is in accord with the principles of sustainability. The E.S. has demonstrated that the proposal will not cause demonstrable harm to interests of acknowledged importance and therefore when all material planning factors are taken into account it is hoped that planning permission will be granted for the Section 36 Extension to the Millennium Wind Farm.



