

Pentland Hills Regional Park Joint Committee

10am, Friday 25th January 2013

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000. Section 36 Application for the Proposed Fauch Hill Wind Farm, 8km South West of East Calder.

Item number

Report number

Wards

Pentland Hills, Colinton /Fairmilehead

Links

Coalition pledges

P32, P33, P42, P45 and P48

Council outcomes

CO5, CO10, CO15, CO7, CO17, CO18, CO19, CO21 and CO22.

Single Outcome Agreement

SO2, SO3, SO4

David Jamieson

Parks & Greenspace Manager

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Executive summary

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000. Section 36 Application for the Proposed Fauch Hill Wind Farm, 8km South West of East Calder.

Summary

As reported to the Joint Committee on 16th December 2011, and 16th March 2012 an application has been submitted to Scottish Ministers for the development of a wind farm consisting of 23 turbines with a generating capacity of 69MW at Fauch Hill. On the 16th March 2012 the Joint Committee agreed that a consultation response be submitted stating that the Regional Park is not in favour of the proposed development on grounds of it being contrary to local planning policy and the aims of the Regional Park. A reporter has been appointed and a public inquiry will be held in the near future.

Recommendations

It is recommended that the Joint Committee requests that the Regional Park gives evidence at the public inquiry and that officers from the managing and partner local authorities work jointly to provide such evidence.

Measures of success

Evidence given will be based on the earlier written submission stating that the proposal is contrary to local planning policy and the aims of the Pentland Hills Regional Park. While this position will be restated at the public inquiry, the final outcome will be determined by Scottish Ministers

Financial impact

Costs from making representation at the public enquiry will relate primarily to officer time, and be met from existing revenue budgets.

The developer proposes to provide an annual community benefit contribution of £4,000 per MW of installed capacity (£276,000). It is likely that the funds would be administered by the existing West Lothian Development Trust (WLDT).

Equalities impact

The contents and recommendations of this report do not detract from the delivery of the general public sector equality duties.

Sustainability impact

The Pentland Hills Regional Park supports sustainability objectives by: 1) providing a managed resource for non-motorised recreation and physical activity; 2) protection and enhancement of woodland, wetland and moorland; 3) enhancing the biodiversity of Edinburgh and the Lothians; 4) protecting the landscape and environmental quality of the Pentland Hills; and 5) supporting sustainable economic development of the rural economy.

The proposed wind farm would support Scotland's contribution towards international commitments to tackle global climate change. However, a significant adverse impact on the local landscape quality would occur. The regionally important significance of this landscape quality is reflected in landscape designations and local planning policies intended to prevent such development. It is suggested therefore that a large scale windfarm in this location is inconsistent with sustainability objectives.

Consultation and engagement

The Pentland Hills Regional Park is governed by a Joint Committee comprising of elected members from all three partner local authorities: the City of Edinburgh Council, Midlothian Council, and West Lothian Council.

The Regional Park is advised by a Consultative Forum comprising of a wide range of interests including: farmers and land owners; recreational users; community councils; wildlife interests; Friends and other voluntary groups; sporting interests; public agencies; and national governing bodies. The Forum acts as the primary consultative mechanism for Regional Park matters. The Consultative Forum has been engaged with discussions about the proposed wind farm and these have informed the written submission made on behalf of the Joint Committee.

Background reading / external references

Further background information about the Regional Park is available at www.pentlandhills.org

'Proposal for a New Wind Farm at Fauch Hill' – Report to the Pentland Hills Regional Park Joint Committee 16th December 2011

Progress of the public inquiry can be followed at www.dpea.scotland.gov.uk

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000. Section 36 Application for the Proposed Fauch Hill Wind Farm, 8km South West of East Calder.

1. Background

- 1.1 As reported to the Joint Committee on the 26th December 2011 and the 16th March 2012, Fauch Hill Sustainable Energy (FHSE) has submitted an application to Scottish Ministers to develop a new wind farm consisting of 23 turbines with a generating capacity of 69MW at Fauch Hill (Appendix 1).
- 1.2 The proposed development site sits directly on the Regional Park boundary. The development site area is however outwith the Regional Park.
- 1.3 Individual turbines would have a tower height of 80m, a blade diameter of 90m and a tip height of 125m. Proposals include approximately 62 hectares of new woodland planting incorporating new recreational access and a proposed community benefit contribution of £4,000 per MW of installed capacity.

2. Main report

- 2.1 In June, 2012, West Lothian Council raised a formal objection in its capacity as the local planning authority (Appendix 2). Similarly City of Edinburgh Council raised objections in its capacity as neighbouring planning authority (Appendix 3).
- 2.2 On the 16th March 2012, the Pentland Hills Regional Park Joint Committee endorsed a consultation response from the Regional Park Manager as being 'not in favour' of the development on the grounds of it being contrary to local planning policy and the aims of the Regional Park (see Appendix 1).
- 2.3 In December 2012, the application was passed to the Scottish Government's Directorate for Planning and Environmental Appeals (DPEA) for examination. A reporter, Mr Dan Jackman BA (Hons) MRTPI, has been appointed to hold a public inquiry and to report his recommendations to Scottish Ministers. Timescales when available and progress updates are available via the DEPA website at www.dpea.scotland.gov.uk.

- 2.4 On the 13th December 2012, the Pentland Hills Regional Park received confirmation from the Directorate for Planning and Environmental Appeals confirming that a public inquiry will be held and providing an opportunity to give evidence.
- 2.5 Since designation in 1986, this is the first proposal with the potential to impact the landscape quality and public enjoyment of the Pentland Hills Regional Park to this extent. It is appropriate therefore that the Regional Park is represented during the inquiry processes.

3. Recommendations

- 3.1 It is recommended that the Joint Committee:
- 3.1.1 requests that the Regional Park gives evidence at the public inquiry and that officers from the managing and partner local authorities work jointly to provide such evidence.

David Jamieson

Parks & Greenspace Manager

Links

Coalition pledges

P32 - Develop and strengthen local community links with the police

P33 - Strengthen Neighbourhood Partnerships and further involve local people in decisions about how Council resources are used.

P42 - Continue to support and invest in our sporting infrastructure.

P45 - Spend 5% of the transport budget on provision for cyclists

P48 - Use Green Flag and other strategies to preserve our green spaces.

Council outcomes

CO5 - Our children and young people are safe from harm or fear of harm, and do not harm others within their communities

CO10 - Improved health and reduced inequalities
CO15 - The public is protected
CO7 - Edinburgh draws new investment in development and regeneration
CO17 - Clean – Edinburgh’s streets and open spaces are clean and free of litter and graffiti
CO18 - Green – We reduce the local environmental impact of our consumption and production
CO19 - Attractive Places and Well Maintained – Edinburgh remains an attractive city through the development of high quality buildings and places and the delivery of high standards.
CO21- Safe – Residents, visitors and businesses feel that Edinburgh is a safe city
CO22 - Moving efficiently – Edinburgh has a transport system that improves connectivity and is green, healthy and accessible

Single Outcome Agreement

SO2 - Edinburgh’s citizens experience improved health and wellbeing, with reduced inequalities in health
SO3 - Edinburgh’s children and young people enjoy their childhood and fulfil their potential
SO4 - Edinburgh’s communities are safer and have improved physical and social fabric

Appendices

Appendix 1: *‘The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000. Section 36 Application for the Proposed Fauch Hill Wind Farm, 8km South West of East Calder’* – Report to the Pentland Hills Regional Park Joint Committee 16th March 2012.

Appendix 2: Consultation Response from West Lothian Council

Appendix 3: Consultation Response from City of Edinburgh Council.

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000. Section 36 Application for the Proposed Fauch Hill Wind Farm, 8km South West of East Calder.

Pentland Hills Regional Park Joint Committee

16th March 2012

Purpose of report

- 1 To update the Joint Committee about the proposals for a wind farm at Fauch Hill, near Crosswood Reservoir, West Lothian.

Main report

- 2 As reported to the Joint Committee on 16th December 2011, Fauch Hill Sustainable Energy (FHSE) proposes to develop a new wind farm consisting of 23 turbines with a generating capacity of 69MW at Fauch Hill.
- 3 Individual turbines would have a tower height of 80m, a blade diameter of 90m and a tip height of 125m. Proposals include approximately 62 hectares of new woodland planting incorporating new recreational access.
- 4 FHSE proposes to provide an annual community benefit contribution of £4,000 per MW of installed capacity (£276,000). It is likely that the funds would be administered by the existing West Lothian Development Trust (WLDT).
- 5 The site boundary sits either directly on, or is close to the Regional Park boundary. The development site area is however entirely outwith the Regional Park.
- 6 On the 26th January 2012, FHSE submitted an application under Section 36 of the Electricity Act 1989 for Scottish Ministers' consent to construct and operate the scheme. The application included a detailed environmental statement as required by law.
- 7 The Pentland Hills Regional Park is a consultee for the application and has received a letter dated 30 January 2012 inviting representations by a closing date of 31st March 2012.
- 8 West Lothian, City of Edinburgh, and Midlothian Councils are also consultees in their capacity as host, or neighbouring planning authorities.

- 9 The Regional Park Joint Committee does not have any formal or statutory role in the planning process. For this reason planning matters within the Regional Park are managed and responded to by the relevant local planning authority. Comments from the Regional Park Manager may be sought by planning officers on individual planning applications, but such comments are only advisory.
- 10 The application for Fauch Hill is however different from local planning matters in 5 distinct ways:
- the application is determined by Scottish Ministers;
 - the Regional Park has been invited by the Scottish Government to make a representation;
 - it is a large scale proposal immediately on the Regional Park boundary with significant landscape impacts;
 - the proposed scheme clearly conflicts with local planning policy which seeks to protect the landscape quality of the Regional Park and the wider Pentland Hills range; and
 - the scheme conflicts with the aims of the Regional Park.
- 11 The Pentland Hills are designated as an Area of Great Landscape Value (AGLV) within the adopted West Lothian Local Plan 2009 that was the subject to public consultation as part of the process. With respect to AGLVs, West Lothian Local Plan Policy ENV19 states that:
- “.....there is a presumption against development which would undermine the landscape and visual qualities for which these areas were designated”.*
- 12 With respect to the Regional Park, West Lothian Local Plan Policy NWR 22 states:
- “The Council will resist any proposals for renewable energy development that will affect the character, visual integrity or recreational qualities of both the Pentland Hills Regional Park and the wider area of the Pentland Hills within West Lothian. Proposals that are located outwith the Regional Park or the wider Pentland Hills but nevertheless undermine the landscape and outdoor recreational qualities of those areas will not normally be supported unless it can be conclusively demonstrated that the integrity of the landscape and outdoor recreational qualities are not adversely affected”*
- 13 West Lothian Council, in conjunction with Scottish Natural Heritage, through consultants, has recently undertaken a Landscape Capacity Study (LCS) for wind energy development in West Lothian. This was considered by the Council’s Policy & Development Scrutiny Panel in October 2011. It identified that the Western Pentland Hills were one of a number of “Areas of Highest Sensitivity” (AoHS) in relation to any proposed wind turbine development. This LCS will form the basis of Supplementary Planning Guidance that is to be released for consultation in Spring 2012. In addition, the Pentland Hills Uplands are identified as a landmark landscape feature. Due to visual sensitivity, no capacity has been identified for wind energy in the Pentland Hills AoHS.

- 14 The first two Aims of the Regional Park are:
- *To retain the essential character of the Hills as a place for the peaceful enjoyment of the countryside; and*
 - *Caring for the hills, so that the landscape and the habitat is protected and enhanced.*
- 15 The nature of windfarm developments mean that significant adverse effects can be anticipated, even if as is the case with this proposal, design and mitigation measures are incorporated. The proposal therefore fundamentally conflicts with the principal aims of the Regional Park and with local planning policy intended to protect its surrounding landscape.
- 16 The proposed scheme would however contribute to national targets for renewable energy, generate employment and provide a benefits package for investment in the local community (see Appendix 1). Other benefits include new amenity woodland and new access opportunities within the site and linking to the locality, including the Regional Park. Access proposals are described in a Recreational Development Plan produced in December 2011 by Oatridge College on behalf of FHSE Ltd.
- 17 Public enjoyment of the Regional Park is based on its essential character; one largely defined by its high quality landscape and opportunities for its enjoyment. A draft response reflecting this position is attached (Appendix 2).

Financial Implications

- 18 The community benefits package would amount to £4,000 per MW of installed capacity representing £6.9 million over the 25 year life of the project.
- 19 FHSE state that the scheme would expend over £200 million and provide employment opportunities associated with constructing and managing the site.
- 20 The Pentland Hills are visited for a range of recreational activities which bring money into the local economy. These include: walking, fishing, cycling, riding and short term stays in holiday accommodation. Adverse impact on the amenity and landscape character of the area may deter people from visiting and participating in these activities.

Equalities Impact

- 21 There is no equalities impact arising from this report.

Environmental Impact

- 22 The Pentland Hills Regional Park was established under provisions within the Countryside (Scotland) Act 1987 and has 4 key aims:

- to retain the essential character of the hills as a place for the peaceful enjoyment of the countryside;
- caring for hills, so that the landscape and habitat is protected and enhanced;
- within this caring framework, to encourage responsible public enjoyment of the hills; and
- co-ordination of these aims so they that can co-exist with farming and other land uses within the park.

- 23 The work of the Regional Park is dedicated to providing visitor and land management services that allow people to enjoy the landscape and wildlife of the Pentland Hills without damaging its environment. Services provided by the Regional Park enable people to engage with nature, take physical exercise and participate in outdoor recreational activities. Protection of the high quality upland environment that people come to enjoy is therefore a key role for the Regional Park.
- 24 The proposed scheme would support Scotland's Contribution towards international commitments to tackle global climate change.
- 25 Planting of 62 hectares of new woodland may enhance local wildlife habitat for some species and provide new recreational opportunities.
- 26 Community projects that might be delivered by the community benefit contribution may deliver environmental improvements within a 10km area from the wind farm.
- 27 A significant adverse impact on the local landscape quality will arise.

Recommendations

- 28 It is recommended that the Joint Committee:
- a) endorses the draft consultation response from the Regional Park Manager shown in Appendix 2;

David Jamieson
Parks & Greenspace Manager

Appendices	Appendix 1: Fauch Hill Wind Farm Environmental Statement – Non Technical Summary
	Appendix 2: Draft Consultation Response Pentland Hills Regional Park
Contact/tel/Email	David Jamieson (Parks and Greenspace Manager, 0131 529 7055) Keith Logie (Parks Development Manager, 0131 529 7916) Alan McGregor (Regional Park Manager, 0131 445 3383)
Wards affected	All

Single Outcome Agreement	<ul style="list-style-type: none"> 1 We live in a Scotland that is the most attractive place for doing business in Europe. 2 We realise our full economic potential with more and better employment opportunities for our people. 6 We live longer, healthier lives. 10 We live in well-designed, sustainable places where we are able to access the amenities and services we need. 11 We have strong, resilient and supportive communities where people take responsibility for their own actions and how they affect others. 12 We value and enjoy our built and natural environment and protect it and enhance it for future generations 13 We take pride in a strong, fair and inclusive national identity. 14 We reduce the local and global environmental impact of our consumption and production. 15 Our public services are high quality, continually improving, efficient and responsive to local people's needs.
Background Papers	<p>Proposal for a new Windfarm at Fauch Hill – Report to the Pentland Hills Regional Park Joint Committee 16th December 2011.</p> <p>Fauch Hill Wind Farm - Recreational Development Plan, Phase 1 (Oatridge College, on behalf of FHSE Ltd December 2011)</p>

Appendix 2 Section 36 Application for the Proposed Fauch Hill Wind Farm - Draft Response from the Pentland Hills Regional Park

Debbie Flaherty
Energy and Climate Change Directorate
Energy Division
5 Atlantic Quay
150 Broomielaw
Glasgow G2 8LU

Dear Ms Flaherty

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000. Section 36 Application for the Proposed Fauch Hill Wind Farm, 8km South West of East Calder.

Thank you for your letter dated 30th January 2012 inviting the Pentland Hills Regional Park to comment on the above application.

I can confirm that the Pentland Hills Regional Park is NOT IN FAVOUR of the proposed wind farm at Fauch Hill.

This response has been endorsed by the Regional Park Joint Committee comprising elected members from City of Edinburgh, West Lothian and Midlothian Councils.

The Pentland Hills Regional Park was designated in 1987 under the provisions of the Countryside (Scotland) Act 1981. The Park covers some 50 square miles of upland countryside and provides over 100km of paths for walking, cycling, horse riding and peaceful enjoyment of the countryside. The Regional Park has 4 aims:

1. to retain the essential character of hills as a place for the peaceful enjoyment of the countryside;
2. caring for the hills so that the landscape and habitat is protected and enhanced;
3. within this caring framework to encourage responsible public enjoyment of the hills;
4. co-ordination of these aims so that they can co-exist alongside farming and other land uses within the park.

The first two aims in particular indicate that the Regional Park places a high value on landscape quality as the basis for responsible recreational enjoyment of the hills.

The high landscape quality of the Regional Park and the Pentland Hills range is reflected in its designation as an Area of Great Landscape Value (AGLV) by the three planning authorities that cover the Park, i.e.; West Lothian, Midlothian and City of Edinburgh Councils.

The recently adopted West Lothian Local Plan (2009) policy aims to protect the landscape of the Pentland Hills. In particular West Lothian Local Plan Policy ENV19 states that:

“.....there is a presumption against development which would undermine the landscape and visual qualities for which these areas were designated”.

With respect to the Regional Park, West Lothian Local Plan Policy NWR 22 states:

“The Council will resist any proposals for renewable energy development that will affect the character, visual integrity or recreational qualities of both the Pentland Hills Regional Park and the wider area of the Pentland Hills within West Lothian. Proposals that are located outwith the Regional Park or the wider Pentland Hills but nevertheless undermine the landscape and outdoor recreational qualities of those areas will not normally be supported unless it can be conclusively demonstrated that the integrity of the landscape and outdoor recreational qualities are not adversely affected”

The nature of windfarm developments mean that significant adverse landscape effects are likely, even if design and mitigation measures are incorporated. The proposed development is immediately on the Regional Boundary and will have a detrimental effect on visitors' experience of the hills, both within and beyond the Regional Park. The proposal therefore fundamentally conflicts with the aims of the Regional Park and with local planning policy intended to protect its landscape character.

The opportunities for community benefit funding, employment and contribution towards national targets for renewable energy and climate change mitigation are noted. While these are welcome in principle, it is suggested that in this location, they do not outweigh the importance of landscape conservation as expressed in the aims of establishing and promoting the Regional Park and recently adopted local planning policy.

The Pentland Hills Regional Park's position, as endorsed by the Joint Committee at its meeting on 16 March 2012, is that it is not in favour of the proposed windfarm at Fauch Hill.

Yours sincerely

Alan McGregor
Regional Park Manager.



Fauch Hill Sustainable Energy



Fauch Hill Wind Farm Environmental Statement

Volume 8 - Non-Technical Summary

THE FAUCH HILL WIND FARM PROJECT

1. INTRODUCTION

Fauch Hill Sustainable Energy Limited (FHSE), a wholly owned subsidiary of European Forest Resources Group (EFRG), has submitted an application to the Scottish Ministers for consent under Section 36 of the Electricity Act 1989, for the construction and operation for 25 years of a wind farm at Fauch Hill, West Lothian.

The Project will be built on part of the West Colzium and Crosswoodburn Estate, owned by EFRS, an EFR Group company. It is located in West Lothian, approximately 8 kilometres south-east of West Calder, and is approximately 350m above sea level.

Figure NTS 1 is the Location Plan and shows the location of the Fauch Hill Wind Farm, the area outlined in blue on this figure is the West Colzium and Crosswoodburn Estate, (the Estate) whilst the area outlined in red, and shaded in yellow is the Application Site (the Site).

Rising land from the Site to a ridge formed by a line from East Cairn to West Cairn forms a topographical barrier to views from further within most of the Pentlands and the Pentland Hills Regional Park (PHRP).

The Project will consist of 23 turbines with internal transformers, each with a nominal capacity of up to 3 MW, 22 with a maximum blade tip height of 125 m and 1 of 115m. The total installed project capacity will be a maximum of 69 MW, sufficient to power a total of 42,000 of households with clean, green, renewable electricity. Figure NTS 2 is the Application Site Boundary Plan which shows the layout of the wind farm.

Since this is a wind farm with a capacity in excess of 50 MW the application will be submitted to the Scottish Ministers for their consent under Section 36 of the Electricity Act 1989. It is a requirement that such submissions are accompanied by an Environmental Statement (ES).

This ES comprises 8 volumes

Volume 1: 17 chapters as follows:

Chapter 1: Introduction

This chapter introduces the Project, explains the context and requirements for the ES, and details the project and assessment team.

Chapter 2: Site Selection and Design Evolution

Chapter 2 describes why the Site was selected and the design iterations which have been performed for matters such as the numbers of turbines proposed, their arrangement on the Site and the routing of access tracks.

Chapter 3: Project Description

This chapter describes the proposed layout for the wind farm and its key components. It also describes the principal construction activities and associated matters including construction access routes and environmental management during operation.

Chapter 4: Scoping and Introduction to the Assessments

Chapter 4 explains the scope of the assessments reported in the ES. It also describes the relationship between environmental impacts and their effects and sets out a common format for the various detailed assessments reported in Chapters 5-16.

Chapters 5 -16: Assessment of Environmental Effects

These chapters report the findings of the studies and assessments which have been undertaken in light of the scoping opinion and any modifications to scoping as the studies and assessments have progressed. Where appropriate, mitigation measures are described. To aid the understanding and relationship between the various technical assessments, these chapters are presented in a standardised format which is described in Chapter 4.

- Chapter 5 assesses the landscape and visual impact;
- Chapter 6 provides an overview of EU, UK and Scottish Renewable Energy and Planning Policy;
- Chapter 7 assesses ornithology;
- Chapter 8 assesses ecology;
- Chapter 9 assesses noise;
- Chapter 10 assesses cultural heritage interests;
- Chapter 11 assesses soil and water;
- Chapter 12 assesses road and traffic;
- Chapter 13 assesses atmospheric emissions, including both local air quality and greenhouse gases;
- Chapter 14 socio- economic assessment, recreational development potential and tourism;
- Chapter 15 assesses telecommunications and aviation;
- Chapter 16 assesses shadow flicker;
- Chapter 17 details the various environmental protection measures envisaged and forms a Schedule of Environmental Commitments to which FHSE will adhere prior to and during construction, during operation and decommissioning of the Project.

Volume 2: Figures and photographs supporting the written statement, including photomontages to support the Landscape and Visual Impact Assessment (LVIA).

Volume 3: Technical Appendices containing the detailed specialist reports prepared during the planning and assessment of the proposal. This volume also contains the Tourism Assessment by the Moffat Centre for Travel and Tourism Business Development and the Socio-Economic Assessment by BiGGAR Economics.

Volume 4: Four documents comprising of:

- The Planning and Policy Statement sets out the Planning and Policy frameworks relevant to the Project;

- The Design and Access Statement describes the design approach for the project and discusses access to the Site;
- The Pre-Application Consultation Report contains details of the public consultation that has taken place to inform local residents about this Project and to obtain their feedback on both the Project and their desires for recreational facilities on the Estate and improved access to the Pentland Hills Regional Park;
- The Recreational Development Plan for which FHSE commissioned Oatridge College in response to feedback obtained in the public consultation discusses the opportunities for recreational activities and facilities on the Estate as a result of this Project.

Volume 5: Eight documents comprising of:

- The Outline Forestry Management Plan sets out a programme of woodland planting;
- The Outline Habitat Management Plan sets out a series of measures to enhance the ecological status of the Estate and to improve biodiversity;
- The Site Waste Management Plan discusses the recycling and re-use hierarchy for surplus materials and safe handling and disposal of any waste materials from the site;
- The Site Environmental Management Plan discusses techniques and methods to be employed to minimise the impact of construction on the environment;
- The Soil & Peat Management Plan discusses how peat and soils shall be handled and how excavated materials shall be re-used on site;
- The Construction Method Statement sets out the principles for construction management of the Project;
- The Operations Method Statement sets out the principles for operation of the wind farm;
- The Schedule of Environmental Commitments summarises the commitments FHSE will make in the construction and operation of the Project.

Volume 6: Confidential Information collected in the Site surveys pertinent to protected species that FHSE is not permitted to put into the public domain. It is made available for SNH and RSPB to use in their consideration of the application for consent.

Volume 7: the Application Site Boundary Plan and Location Plans.

Volume 8: This Non-Technical Summary.

This ES and the supplementary documentation have been prepared by the specialist consultants below:

Table 1: The Project Team

BiGGAR Economics	Socio-Economic Assessment
CFA Archaeology	Cultural Heritage
Circle Design Consultants	Landscape and Visual Impact Assessment
EJ Downs Forestry	Forestry
Garrad Hassan	Wind resource, Wind Farm Design and Layout
Moffat Centre for Travel and Tourism Business Development	Tourism Assessment
Montague Evans	Planning & Policy, Design & Access Statement
Mouchel	Ecology, Noise, Air and Climate, Shadow Flicker, Transport, Construction, Soil and Water, Environmental Management, Waste Management, Peat Management
Natural Research (Projects) Limited	Ornithology
Invicta Public Affairs	Public Consultation
Oatridge College	Recreational Development Plan
Shepherd and Wedderburn LLP	Planning Law advice
Spaven Consulting	Aviation and Telecommunications

2. SITE SELECTION AND DESIGN EVOLUTION

Site Selection

Fauch Hill is an excellent site for renewable energy generation for a number of reasons:

- it has an exceptional wind resource;
- it is of sufficient area for a wind farm large enough to deliver significant benefits in terms of renewable electricity generation and the consequent reductions in climate change emissions;
- Site access via and off the A70 is good;
- it is close to two suitable ports with proven routes for the transport of turbines;
- the local roads have adequate capacity for construction traffic;

- the Central Belt offers good access to construction materials and a skilled workforce for construction and operation;
- it is close to potential grid connection points;
- the immediate vicinity is relatively sparsely populated;
- there are no national or international designations within the Site; and
- there is an excellent opportunity to provide environmental and recreational enhancements within the Site and more widely within the Estate.

How the Project was Designed

Any, indeed every, wind farm has the potential to impact the local environment in a number of ways. Construction of a wind farm introduces different environmental challenges. Accordingly developers are required by the Scottish Government to produce an Environmental Statement to accompany the application for consent.

In the case of the Fauch Hill Wind Farm (the Project), the benefit of the information gathered for the environmental assessment was used to guide the wind farm design interactively throughout the survey period of two years.

The following approaches and objectives have guided the planning and design of the Project:

- use environmental assessment during project planning and design to inform the evolution of the layout to avoid or reduce any potential environmental impacts;
- use post-design and installation mitigation only where it is not feasible to design out impacts;
- select turbine size, height and location in a manner that recognises and respects the topography of the Site and its relationship to the wider landscape and its visual context;
- maximise the potential generating capacity from the available wind resource through balancing the design, position and number of turbines within the Site's environmental capacity;
- adopt a sustainable approach to design to ensure there will be no lasting adverse impacts on existing natural systems and making provision for future decommissioning;
- protect and enhance wildlife and biodiversity in the area;
- safeguard important cultural heritage and archaeology features within the Site;
- protect nearby residents from noise, disturbance, shadow flicker, etc;
- consider flight paths and radar constraints as an integral part of the design solution; and
- improve opportunities for public access into the West Colzium and Crosswoodburn Estate and through the Estate to promote increased and improved access to the Pentlands Hills Regional Park.

Evolution of the Design Layout

The result of preliminary environmental and technical studies indicated that the Estate had capacity for 43 turbines. The original design located 43 turbines on the highest ground to maximise yield.

This design was proposed in the Scoping Report submitted to the Scottish Executive (6 April 2009) as part of the request for a Scoping Opinion.

This application for consent is for a 23 turbine wind farm. The final layout has been determined by the environmental assessments and extensive consultation process with Scottish Natural Heritage (SNH), West Lothian Council (WLC), the Pentlands Hills Regional Park (PHRP), West of Scotland Archaeology Service (WoSAS), Scottish Environmental Protection Agency (SEPA), other non-statutory consultees, local community groups and members of the public.

The Design Evolution

- The design changed from the preliminary layout of 43 turbines of 155m height in essentially an "east-west" rectangular arrangement, to a final design of 23 turbines of 125m height in a "north-south" rectangular arrangement, with all the turbines placed on lower ground. The effect of this reduced both the extent of visibility and the nature of views from the higher parts of the Pentland Hills and PHRP including the ridge line formed by Scald Law, Carnethy Hill and Allermuir Hill and provided significant reductions in theoretical visibility into the Scottish Borders;
- A reduction in turbine height from 155m to 125m, to reduce visibility both into the Pentlands, Lanarkshire and the Lothians and make a very significant reduction to theoretical visibility into the Scottish Borders;
- The extent of visibility from the PHRP is largely confined to areas which already have visibility of existing wind farm development. Wind farms already form a component of views from the north and west out of the PHRP;
- The wind farm has been designed so that there will be essentially no visibility from two of the nearest villages to the Project, East Calder and Kirknewton, and in addition that there will be no significant visibility from Little Sparta (Dunsyre), the New Lanark World Heritage Centre and the VU restaurant. Local screening eliminates theoretical views from Harburn House;
- Detailed surveying has identified watercourses to ensure stream crossings have been minimised;
- 50m buffers between infrastructure and watercourses have been achieved for protection of watercourses;
- The results of ecology and ornithology surveys and analysis have ensured the minimum impacts on fauna and flora;
- An extensive peat probing exercise (over 1100 tests) has resulted in a layout that minimises disturbance to peat. 22 turbines are located in areas with peat depths of 1m or less and one is in an area of between 1.0 and 1.5m depth;
- Relocation of tracks and the Site entrance.
- Reductions in turbine numbers to 33, 27, 25 and finally 23 as the environmental assessment continued and visual impacts were identified and addressed;
- 5 turbines were removed to reduced the impact on visual amenity, and one to avoid conflict with Edinburgh radar;
- 2 turbines were removed specifically to increase the minimum distance between dwellings and the nearest turbine;

- 1 turbine was reduced in height to 115m maximum to avoid visibility by Edinburgh radar and to prevent it from being an outlier to visual cohesion; and
- 1 turbine was removed for peat and hydrology reasons.

3. PROJECT DESCRIPTION

The Project will include 23 turbines each up to 3MW capacity. The specific combinations of tower height and rotor diameter for the machines considered suitable for the Project result in blade tip heights of up to 125m, with the exception of one turbine (turbine 19) which will not exceed 115m. Key Components will include:

Wind Turbines:

The turbines proposed for Fauch Hill are 3 blade upwind machines and consist of a tower supporting the nacelle, the nose-cone and the rotor. The nacelle houses the drive shaft, gearbox, generator and any associated control and lubrication systems.

Wind turbines generate electricity by collecting energy from the wind by the rotor blades and using it to turn a shaft connected to a generator. Electricity is generated at a nominal 400 volts, which is boosted to 33kV by transformers in the base of the towers. Electricity at 33 kV from each turbine is collected together at the substation where it is increased to 132 kV for export onto the National Grid.

Wind turbines generate electricity for winds above the cut-in wind speed of 3.5 m/s up to the cut out wind speed of 25 m/s. The turbines turn to face the wind and each turbine is equipped with wind speed measuring and direction finding equipment enabling it to turn and seek the wind, and to start and stop automatically according to cut-in and cut-out wind speeds.

The rotor turns at a nominal 16 revolutions per minute (rpm), and operates between 8 and 18 rpm. The speed of the turbine is controlled by altering the blade pitch hydraulically and there are brakes to stop or prevent rotation if needed for operational or maintenance reasons.

The main voltage step-up transformer will be installed in the base of the tower (or, for some designs under consideration, in the nacelle itself).

Turbine blades are typically glass reinforced composites built on a balsa wood former. The towers will either be of concrete or steel construction, or a hybrid of both. The turbines will be coloured matt grey or off-white in accordance with normal practice in Scotland.

The final wind turbine technical specification will only be known when the turbine supply-and-erect contract and the design and build construction contracts are awarded by FHSE. These specifications will vary according to the specific turbine model and the contractors selected so this description is generic and is based on the maximum physical characteristics.

Access to Site:

The main access to the Site will be via a new entrance from the A70. This will be a new bell-mouthed entrance to enable clear visibility and easy entry and egress to and from the A70 to the Site.

Wind Farm Infrastructure:

A permanent meteorological mast will be installed to enable continuous monitoring and optimisation of power production.

The Project will need both a substation to connect to the National Grid and a control room building.

The internal wind farm electrical system will utilise buried cabling running in trenches adjacent to the wind farm roads. The connection from the sub-station to the grid connection starting at the Site boundary will also be buried.

Connection to the National Grid:

This will be a transmission-connected power park and an offer to connect to the National Grid has been received by FHSE.

Wind Farm Construction:

A project workforce of around 80 people is envisaged, although not all will be on the Site at the same time. The on-site workforce is anticipated to peak at around 55, depending on the speed and duration of construction works and the degree to which personnel are brought on site or left in other local offices in the area.

Concrete will be supplied as ready mix concrete (RMC). RMC can be supplied in quantity from local suppliers close to the Site.

Stone recovered from borrow pits on-site will be used for new and upgraded Site roads, crane hard standings and foundations.

Protection of the Environment:

The ES as a whole addresses protection of the environment and the key elements are discussed under the relevant chapter headings. The Schedule of Environmental Commitments lists and summarises those commitments.

To ensure that best environmental practice is upheld FHSE will appoint an Ecological Clerk of Works (ECOW) for the duration of the construction period. The role of the ECOW is well defined in the document "Good Practice during Wind Farm Construction" (Scottish Renewables, SNH, SEPA & FCS, October 2010).

Operations and Maintenance:

Each turbine will require routine maintenance in the form of condition monitoring, inspection, replacement of consumables and replenishment of lubricating oils. A crew of 3 people will be used for these tasks. They would access the Site using small vans and commercial vehicles.

The operation of the turbines is largely automatic. As described previously they are equipped with sensors and equipment to allow them to automatically start, stop, seek the wind and rotate the nacelle into the prevailing wind to maximise power production.

The turbines will be equipped with a high level of condition monitoring, including vibration monitoring for the rotor blades. Vibration monitoring will detect any nascent structural issues with the blades, or any imbalance caused by icing, and safely shutdown the machine accordingly and calls for maintenance and inspection to be made before it is allowed to restart.

Modern wind turbines are very reliable, and for virtually all of the time a turbine is available to generate electricity. The exceptions to being available result from downtime due to routine maintenance, such as lubricating oil changes, bolt tightening etc. and breakdowns. It is common for vendors to allow 60 to 80 hours a year for routine maintenance, which is less than 1% of the total time.

4. SCOPING AND INTRODUCTION TO THE ASSESSMENTS

Scoping

Since this is a wind farm with a capacity in excess of 50 MW the application will be submitted to the Scottish Ministers for their consent under Section 36 of the Electricity Act 1989. It is a requirement that such submissions are accompanied by an Environmental Statement (ES). The contents of this statement are agreed in advance with the Scottish Executive in the form of the Scoping Opinion received on 24 June 2010.

Introduction to the Assessments

The purpose of the ES is to report on the environmental studies which have informed the project design. The studies have included evaluating the environmental baseline (that is, the existing environment); identifying ways in which the project might affect the environment (both for better and for worse); deciding how best to remove or reduce any adverse environmental effects and how to maximise the environmental benefits; and quantifying the likely residual environmental effects of the Project. Throughout the process the specialist consultants have consulted with the relevant authorities. Information which has arisen from the environmental studies has been continually fed back into the developing project design so as to avoid, where possible, any adverse environmental effects at source.

The structure and content of the ES has been described above. Below is a description of the context and the principles used.

Legislative, Regulatory and Planning Context

This identifies statutes, guidance, policies and plans which are relevant to the aspect addressed in the chapter and which have been taken into account during the conduct of the assessments.

Methods of Assessment

This details the methodology adopted for the various assessments. It explains the nature of the data relied on and the surveys, models and calculations used and undertaken to validate:

There is an explanation of the quantitative and qualitative criteria adopted to evaluate impacts and determine the order of beneficial and adverse impacts.

Resources and Receptors

Environmental resources are defined as those aspects of the environment that support and are essential to natural or human systems. These include areas or elements of population, ecosystems, soil, water, air and climatic factors, material assets, landscape, watercourses, community facilities etc.

Environmental receptors may include people (occupiers of dwellings and users of recreational areas, places of employment and community facilities) and elements within the environment (flora and fauna), that rely on resources.

Impacts

Impacts comprise of identifiable changes in the existing environment (the baseline environment) which would occur or be likely to occur as a consequence of implementation of the Project (e.g. the loss of a habitat or the pollution of a watercourse). Impacts may be referred to either prior to or following mitigation.

Each of the assessments evaluates and describes the nature of impacts predicted to result from the construction, operation and decommissioning of the Project. Each defines ratings (thresholds) appropriate to the nature of the environmental aspect and in accordance with accepted terminology, where standardised methodologies are used.

Impacts may be direct or indirect. They may be temporary, short-term, medium-term, long-term or permanent. They may be beneficial, neutral or adverse.

The prediction of impacts has been based on:

- the known or likely presence of environmental receptors / resources;
- the environmental value of the resources / receptors, as determined through their designated status along with qualitative criteria such as rarity, status and condition;
- the vulnerability or sensitivity of affected resources;
- the number and sensitivity of affected receptors;
- the extent, nature and duration of physical change resulting from the construction or operation of the proposed scheme;
- the ability of the resource / receptor to respond to change; and
- the adaptability, and thus effectiveness, of the resource / receptor to controlled change (i.e. mitigation).

Mitigation Measures

This section describes the mitigation measures which have been identified and agreed in light of the evaluation of predicted impacts. The principles adopted during the identification of mitigation measures is one of avoidance if possible, reduction where avoidance cannot be achieved or compensation where reduction cannot be achieved or would not achieve practicable levels of mitigation.

Conclusions and Effects

This section describes the predicted environmental effects in light of the predicted impacts and taking into account proposed mitigation measures.

5. LANDSCAPE AND VISUAL IMPACT ASSESSMENT

A scoping opinion was first carried out to establish the main features that would potentially be impacted by the proposed wind farm. Through consultation with West Lothian Council, Historic Scotland and Scottish Natural Heritage this was further refined, identifying additional features and discounting others. A 35km radius study area was agreed according to guidance for turbines of 125m.

Landscape Character

The character of the landscape relates to the natural processes and human activities that have worked over long periods to shape the land into its present condition. Landscape character may be affected by landform, vegetation, land use patterns and cultural and historical features. A landscape character assessment was carried out to assess the extent to which the development of the project may affect or change the key characteristics of the landscape of the study area. The assessment has been undertaken by Chartered landscape architects, Circle Design, and has taken account of relevant guidance and best practice.

As part of the assessment of landscape character it is important to consider potential cumulative impacts. Cumulative impacts are those which occur as a result of the construction of more than one wind farm in an area. The nature of these impacts relates to the number of wind farms, their scale, the nature of the landscape and the inter-relationship between the respective visual envelopes of the developments. The assessment of cumulative impacts is an evaluation of the additional change and impact that the Project will have on a theoretical baseline position as described below.

In addition to the scoping opinion, further consultation has been undertaken with the Council and SNH to refine the approach and identify any key areas of concern in relation to landscape character and 31 viewpoints were agreed.

Wind farms have the potential to affect the character of a landscape by introducing new components and features, and by removing existing features. This potential loss of features and the introduction of new elements into a landscape can influence how that landscape is perceived. The

assessment of potential impacts evaluates the compatibility of the structural forms and intended scale of the development with landscape components such as landform, land cover, settlement and land use.

The Project is situated on the northern slopes of Black Hill and Torweaving Hill within the south-western part of the Pentland Hills in West Lothian. The Site is located approximately 8 km southeast of West Calder. The A70 runs adjacent to the northwestern boundary of the site. The Site is predominantly covered by a patchwork of grassland fields, with several areas of coniferous plantation woodland. West Cairns Plantation borders the northeastern site boundary and Camilty Plantation borders the northwestern side of the site.

Although the northern boundary of the Site is in close proximity of the PHRP, the ridge line from East Cairn Hill to West Cairn Hill forms a barrier to views of the wind farm from within most of the Pentlands and the PHRP.

The wider area encompasses the undulating lowland hills and valleys around Dunfermline and Cowdenbeath to the north with the coastal shores and associated flats of the Firth of Forth further to the south. The central part of the study area is dominated by the Midland Valley and the Pentland Hills with the Southern Uplands located within the southern part of the study area.

There is one national designation, the Tweeddale National Scenic Area (NSA), approximately 18km from the Project. There are a number of other regionally and locally designated sites within 35kms of the Project including the Pentland Hills Regional Park. The Project itself is located within the Pentlands AGLV (Area of Great Landscape Value) but is only adjacent to the Pentland Hills Regional Park.

Within the detailed 15 km study area the landscape character assessment identified sixteen landscape character types (LCT). The Site itself lies in 2 LCTs, Uplands (West Pentlands LCA and Upland fringes (North West Fringes LCA). These two were identified as experiencing possible significant impacts resulting from the Project. Significant impacts on both of these LCTs would be localised to the area that would be physically changed and also the area immediately adjacent to the project and would not apply to the character types as a whole.

The cumulative landscape character assessment has identified two landscape character types which are likely to receive significant impacts. The predicted significant cumulative impacts are a result of the increased influence that wind farms would have on the character of these two LCTs caused by the introduction of the project.

No LCTs, or other designations, outwith 5km of the Site were assessed as experiencing significant impacts as a result of the proposal.

Visual Impact

The visual impact assessment describes and evaluates the potential changes in views from buildings, routes and popular viewpoints, as a result of the Project, and the extent to which these changes affect residents, visitors and users of the landscape. The assessment evaluates the potential impacts of the Project both during the construction phase and once the Project is in operation.

The visual impact assessment identified two groups from which views may potentially be affected. These are: buildings and outdoor locations, including public roads, paths and walking routes, and mountain summits

Wind farms have the potential to affect the visual amenity of an area by introducing new elements into views of the landscape. The key elements and characteristics of the wind farms which may give rise to visual impacts include components such as turbines, access tracks, substations, borrow pits and construction compounds. The location and management of these components must be carefully considered to minimise environmental effects including potential impacts to the visual amenity.

The layout for the Project has been carefully considered with regards to landscape and visual amenity.

The way that the size of the project and the area of the Site were reduced has already been described. Different layouts were considered specifically to reduce any impact on the Pentland Hills Regional Park and AGLV, and the nearby settlements.

Drawings showing the Zones of Theoretical Visibility (ZTV) were produced to identify areas that could experience visibility of the Project. A ZTV is a computer generated graphic created through the analysis of digital terrain mapping. ZTVs illustrate definitively where the proposed wind farm will not be visible. However, they do not conclusively identify where there will be theoretical visibility as they do not take into account vegetation or building forms, which may screen or filter views of the wind farm.

Twenty five villages, towns and cities within 15km, and twelve further towns and cities within 15 to 35km, are included in the area of the ZTV. Two motorways, eleven 'A' roads, two railway networks, five National Cycle Routes and three National Trails are also included.

In consultation thirty one specific representative viewpoints were agreed with West Lothian Council, Historic Scotland and Scottish Natural Heritage for detailed analysis, and these are presented and discussed in Chapter 5 of the ES, Landscape and Visual Impact Assessment.

Of the thirty seven settlements within the 35 km study area that were identified as experiencing theoretical visibility, localised parts of three villages within 5 km were assessed as experiencing possible significant impacts resulting from the proposed wind farm. No towns or cities within the study area were considered to possibly experience significant impacts. Of the twenty seven routes identified as experiencing theoretical visibility, one route was assessed as experiencing possible significant impacts for a stretch within 5 km of the proposal, namely parts of the A70, along which the site is located. However, wind farm visibility is already a characteristic of this road.

Of the thirty one representative viewpoints that were assessed, seven, all of which are within 6km of the Site, were deemed to potentially experience significant impacts as a result of the proposal.

Given the nature of wind farms it is not possible to avoid visual impacts close to them. However the effect of distance diminishes the perceived size of a wind turbine and the proportion of the field of view it occupies. The diminishing impact with distance is accepted in national policy and guidance. So, as might be expected, significant visual impacts are mostly limited to within 5km of the proposed wind farm and impacts on the visual amenity of the wider study area are not generally considered to be significant.

The assessment also concluded that due to the limited extent of theoretical visibility, the integrity of the landscape and outdoor recreational qualities of the Pentland Hills Regional Park are not adversely affected and that the Project will not significantly affect the essential character of the hills as a place for the peaceful enjoyment of the countryside.

Cumulative Impacts

Cumulative impacts arise where a wind farm and at least one other wind farm impact on a landscape or visual receptor. The nature of cumulative impacts can depend on the number of wind farms, their scale, the topography and the inter-relationship between the different developments.

Cumulative impacts with existing operating wind farms are generally small. Cumulative impacts with the two closest proposed wind farms, Harrows Law and Harburnhead are more significant, especially the latter, due to its closer proximity to local villages and settlements.

Cumulative ZTV analysis shows that large areas of the Pentlands already experience theoretical visibility of other wind farms, and that the Project itself would not add to cumulative effects significantly.

6. PLANNING & POLICY

International Renewable Energy Policy

The United Nations Framework Convention on Climate Change came into force on 21 March 2004 and seeks to stabilise atmospheric concentrations of greenhouse gases at so-called safe levels. Currently 177 Governments and the European Union are parties to the convention. The convention incorporates a series of review mechanisms. The first of these, The Kyoto Protocol, was adopted in December 1997. The Kyoto Protocol introduces targets for participating countries to reduce greenhouse gas emissions by at least 5% below the 1990 level in the period 2008-2012.

The European Union has committed to secure an 8% reduction in greenhouse gas emissions from 1990 by 2012 in order to contribute to the Kyoto Protocol target of at least 5% overall. The EU reduction target is the subject of an EU Renewable Energy Directive.

UK Renewable Energy Policy

UK policy on renewable energy is guided by the Government's commitment to International and European climate change instruments. As a result of the Kyoto Agreement and the EU Directive the UK's commitment is a reduction in greenhouse gases to 12% below the 1990 levels by 2012. The UK Government in 1998 set itself a domestic target to reduce carbon dioxide emissions to 20% below 1990 levels by 2010.

Scottish Renewable Energy Policy

The Scottish Government 2020 Routemap for Renewable Energy in Scotland, published in July 2011, set new targets of producing 100% of Scotland's demand for electricity from renewable sources by 2020. This was an increase from 80% of electricity demand from renewable sources in the Scottish Renewables Action Plan of 2009. The new targets are the most ambitious in the EU.

Edinburgh and Lothians Structure Plan

The Edinburgh and Lothians Structure Plan (Structure Plan) was approved by Scottish Ministers on 17 June 2004. The Structure Plan is now a little dated as it pre-dates many of the UK and Scottish Government policy statements on energy in general and renewable energy in particular. A review of the structure plan was commenced but abandoned in 2007, at which point Scottish Ministers required an immediate start to preparatory work on the Strategic Development Plan (SDP) for the Edinburgh City Region. The SDP for South East Scotland, SESplan – Proposed Plan (SESplan) was published in November 2011. SESplan is considered later in this section.

The overarching aim of the Structure Plan is to provide in full for the development needs of Edinburgh and the Lothians in accordance with the principle of sustainable development, whilst maintaining and enhancing the environment heritage that underpins the area's quality of life.

West Lothian Local Plan

The West Lothian Local Plan (Local Plan) was adopted by West Lothian Council on 13 January 2009. The Local Plan provides guidance on the location of development across West Lothian, based on meeting the requirements set by the approved Edinburgh and Lothians Structure Plan 2015.

It is stated in the Preface that two strategies underpin the Local Plan. The first is to encourage the economic regeneration of West Lothian, the second is to protect and enhance the district built and natural heritage. The Local Plan notes that "a further overarching theme is to follow the principles of sustainability." A strategic objective of the local plan is "encouraging renewable energy technologies which do not prejudice other natural heritage considerations."

The Pentland Hills Regional Park and the Pentland Hills Area of Great Landscape Value (AGLV) are covered by specific policies within the plan.

Renewable energy is addressed in Chapter 11 of the Local Plan, specifically from paragraphs 11.16-11.97. The local plan notes that the council is aware of the Scottish Government's targets for the development of renewable resources as part of Scotland's contribution towards international commitments required to address global climate change.

7. ORNITHOLOGY

The ES contains an assessment of the impact of the Project on birds. This assessment was undertaken by Natural Research Projects Ltd (NRP). The assessment was informed by consultations with SNH, the Lothian and Borders Raptor Study Group (LBRSG) and the Royal Society for the Protection of Birds (RSPB).

Wind farms and birds

Wind farms can have a number of potentially detrimental effects on birds, including disturbance as a result of construction and decommissioning. However, the main impacts are likely to arise during the operational phase of the wind farm, potentially causing birds to be displaced from the vicinity of turbines and tracks due to disturbance and also to collide with rotating turbine blades.

These potential impacts were assessed in Chapter 7 of the ES, supported by two Technical Appendices. The assessment was based on two years of bird surveys at the Site and reference to information on regional and national bird populations. The assessment considered the potential effects of the Project on bird populations and where an adverse impact was predicted, used information on the health of bird populations to determine whether the impact was likely to be significant or not.

Bird Surveys

Bird surveys were conducted in accordance with the recommended SNH guidance. Surveys aimed to determine the abundance and distribution of breeding, migrating and wintering birds and to estimate the amount of flight activity in areas where turbines are proposed. Surveys focused on gathering information on rarer species and those potentially susceptible to the effects of wind farms. As well carrying out a range of standard surveys, targeted flight activity surveys were undertaken to look at the movements of pink-footed geese in the surrounding area.

The Site has a bird population that is typical of this type of habitat in the region.

The Assessment

The assessment concluded that no significant adverse impacts on birds would arise as a result of the Project. Of the breeding waders recorded (curlew, lapwing and golden plover), some pairs were predicted to be displaced due to disturbance when the wind farm is operational. However, evidence from other operational wind farms suggests that this impact may not be realised. Also, displaced birds may nest elsewhere given that large tracts of suitable habitat are available around the Site. These wader species remain widespread in this region.

The nesting site used by goshawks in the neighbouring FCS forest is no longer available as this woodland has been felled. One pair of merlins nested in different woodlands in each year of survey and these woodland areas are due to be felled as a result of pre-existing forest plans before the Project would become operational.

Collision Risk

The possibility of collisions with rotating turbine blades was considered by calculating flight rates inside the area where turbines are proposed. This data, along with calculations of how long the birds might be present during the year, and information on the characteristics of turbines, was entered into a Collision Risk Model (CRM). Of the predictions made for different species by the CRM, the collision estimate for osprey revealed the highest potential impact, showing that up to two birds might be killed over the lifetime of the Fauch Hill Wind Farm. However, the ospreys recorded were not breeding birds and the impacts on the regional osprey population of this additional mortality were concluded to be not significant.

No significant effects on Pink-footed Geese

The Site lies about 6.5km northwest of the Westwater Reservoir which is designated as a Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI) because it is used as a roost by many thousands of wintering pink-footed geese, mainly during the autumn and early winter. Flight activity over the Site by pink-footed geese was recorded between September and April for two years. Using information from these surveys, and the CRM, the assessment concluded that there would be no significant effect on the large and expanding pink-footed goose population. It was concluded that pink-footed geese associated with the Westwater SPA would not be impacted by the Project.

No Mitigation Required

Since no significant effects on birds are predicted, no mitigation is proposed. However, the requirements of breeding birds have been addressed in the Habitat Management Plan and specific provision has been made to ensure that potential breeding sites for merlin are created or safeguarded outside the Site.

8. ECOLOGY

The studies and assessments undertaken in relation to potential impacts on non-avian ecology and nature conservation have focused on areas designated for their biodiversity / nature conservation value, and aquatic and terrestrial habitats and fauna associated with the site and wider area and on any sites, habitats or species protected by law.

The Site consists of mainly upland moorland habitat with areas of wetland, blocks of plantation woodland and open water in the form of neighbouring Crosswood Reservoir. It was previously used as a hill farm for rough grazing and several attempts at land improvement and drainage are evident.

There are no statutory designated sites located within the wind farm Site.

There will be a loss of habitat associated with construction of the turbine bases, crane hard standings, turbine access tracks, substation and other permanent infrastructure: this represents less than 4% of the Site.

Otter

There is some evidence of otter using the outer edges of the Site.

Consideration has been given to the protection of otter resting sites and likely areas of greatest otter activity in the determination of turbine and track locations, and taking into account the proposals to provide for passage through the proposed structures/culverts, restrictions on working during the parts of the day when the species are active and measures to prevent sedimentation and pollution, it has been concluded the Project will not have a significant effect on the status or conservation value of otter on or adjacent to the Estate.

There is unlikely to be any overlap between otters on the Estate populations and populations originating from the River Tweed SAC due to the distance between areas identified as supporting otter activity and the headwaters of the River Tweed catchment.

Water vole

The wind turbine locations are all considered unlikely to impact upon water voles due to the distance of these locations from the watercourses in the Site.

Badger

No evidence of badger was observed within the Site.

Fish

Fish populations recorded at the time of survey were low. Taking into account the low population of fish associated with the watercourses, the relatively small-scale construction required and the mitigation measures proposed, it has been concluded that the Project will not have a significant effect on the status or conservation value of fish associated with the site.

Bats

Potential impacts relative to bats comprise loss of habitat used by commuting and foraging bats to facilitate construction and future wind farm operation, collision during operation and barotrauma effects arising from the pressure differential created by operational turbines.

Much of the site is suitable for bats for foraging and commuting, due to the presence of watercourses, the nearby reservoir and woodland edges. Coniferous woodland within the Site, including strips along the eastern edge of the site boundary, is programmed for removal independently of the project and will accordingly not constitute habitat loss as part of the project. The loss of moorland habitat types to accommodate turbines and tracks is not extensive in the context of the site as a whole and will not markedly affect the available foraging area whilst the principal watercourses identified as commuting routes during the surveys will remain unaffected other than for localised crossings.

Taking into account the relatively low order of habitat loss, the location of the turbines relative to linear features used by commuting and foraging bats and the facility for micro-siting where a small number of the turbines are closest to linear features, it has been concluded the project will not have a significant effect on the nature conservation value of bats. It has also been concluded that with the adoption of guidelines relative to the proximity of turbines to features used by bats, that statutory requirements related to the protection of the species will be met.

The current Outline Forestry Management Plan shows areas of woodland planting that will provide new roosting opportunities for bats, including riparian planting elsewhere on the Estate.

Conclusions on Ecology

The assessments have demonstrated that with the proposed design and mitigation measures, there will be no significant effects on the conservation status of the flora and fauna on the Site, or on their combined contribution to biodiversity value.

It has also been concluded that, with the measures included as part of the proposed scheme, statutory obligations regarding the conservation and protection of protected species will be satisfied.

Where necessary, mitigation measures have been specified and comprise protocols and management procedures related to pre-construction surveys, exclusion and safeguarding of protected species prior to construction and working practices in proximity to sensitive habitats and protected species during construction. These are measures which will form a mandatory part of the

Construction Method Statement and will be subject to monitoring by the independent Environmental Clerk of Works.

Habitat Management

A separate Outline Habitat Management Plan has been prepared for the Project. This provides details of habitat creation/enhancement which will, over time, lead to the development of replacement areas of bog and acid/marshy grassland within the Site and wider Estate. In the context of the Site, drainage ditches and other small watercourses will be blocked to back up water and create water-logged soils which will develop, over time, into a mixture of bog, marshy grassland or acid grassland.

9. NOISE

Wind Turbines & Noise

Wind turbines generate noise by two mechanisms: mechanical noise from the gearbox and generator, and aerodynamic noise caused by the noise of wind passing over the turbine blades. Modern wind turbines are designed in such a manner as to minimise both aerodynamic and mechanical noise.

The construction phase of the project would also generate noise during the excavation of borrow pits, haulage of plant and materials, excavation and foundation construction and the operation of various plant and machinery.

Background Noise

A comprehensive noise monitoring survey has been undertaken around the Site. This has enabled a detailed understanding of the local noise environment to be developed and typical background noise levels established for various wind speeds. The current background noise levels around the Site are low, as would be expected in a rural environment, although road traffic contributes to raised noise levels.

Potential negative noise impacts identified with each design iteration were fed into the next revision and the layout was amended accordingly.

Operational Noise

The predicted noise level resulting from the operation of the turbines complies with all of the relevant standards, guidance and legislation.

Construction Noise

Noise from construction activities may be audible at a small number of properties. However, this is predicted to be at a low level and temporary in nature. It is not expected that construction noise will cause a disturbance. Best practicable means will be adopted where possible to minimise construction noise impacts and this will include the appropriate maintenance of vehicles and equipment, generators and water pumps required for 24-hour operation to be super-silenced or screened, and noisy works, which are audible at the site boundary, are to be undertaken during normal daytime hours, e.g. between 07.00 and 19.00 Monday to Friday and between 07.00 and 12.00 on Saturdays.

10. CULTURAL HERITAGE

The Cultural Heritage chapter considers the likely effects on archaeology and built heritage interests of the construction and operation of the proposed Wind Farm. The assessment has been undertaken by CFA Archaeology Ltd (CFA), taking into account comments and information provided by Historic Scotland and West of Scotland Archaeology Service (WoSAS).

The Assessment

The assessment was designed to identify and evaluate any archaeological sites present within the Site through the examination of desk-based sources and detailed field reconnaissance, and to identify any key receptors within a 15km radius of the Project that could have their settings affected.

The results of this work suggest that the archaeological potential of the Project area is low to moderate, due to the current land-use as rough pasture moorland and the known density of archaeological sites and artefact find-spots in the general area.

Sites of Interest

Fifty sites of cultural heritage interest were identified within the Estate boundary and 27 of these fall within the Site boundary. One site (the West Colzium former farmstead) is of medium sensitivity. The remainder are historic environment features of low or negligible sensitivity.

The Findings

The Wind Farm layout has been designed to avoid all significant archaeological remains, although in places proposed access tracks would affect minor features of 19th-century date resulting in minor direct effects of negligible significance. Mitigation measures are proposed to ensure the protection of surviving remains that lie in close proximity to proposed development works.

A group of three Bronze Age burial cairns, outwith the Site at the south end of Crosswood Reservoir, would receive indirect impacts on their settings of moderate significance arising from the presence of the Project. There would also be an impact of moderate significance on the remains of West Colzium farmstead.

11. SOIL & WATER

An assessment of the potential impacts of the project on the existing soil, water and geology features and resources of the Site, including areas downstream of the Site, has been undertaken.

The Assessment

The Site is located on sloping ground to the north and west of Colzium Hill. The site is typical of rough pasture, with peatland habitats evident across part of the area.

The assessment involved desk study and analysis phases and included a number of field visits between July 2010 and October 2011. These included specific site visits conducted to investigate issues such as peat depth, stream crossing locations and water supplies. Information was provided to FHSE at regular and appropriate stages in order to minimise the effects on soil and water at the design stage.

West Lothian Council, the Scottish Environment Protection Agency (SEPA), Scottish Natural Heritage (SNH) and Marine Scotland provided a number of scoping responses which were dealt with in relation to soil and water issues, with design principles discussed with SEPA during the iterative design process. Consultations were also held with Scottish Water and Ineos in relation to positioning and protection of existing respective assets on or adjacent to the Site.

The assessment included the following elements:

- description of the current environment, including soils, land capability, geomorphology, geology, catchment mapping, water resources and flow estimation;
- identification of specific receptors in relation to soil and water and evaluation of the significant effects caused by the construction, operation and decommissioning of the project;
- identification of mitigation measures to avoid, minimise or mitigate against any adverse impacts;
- evaluation of the significance of any residual impacts from construction, operation and decommissioning.

The key effects investigated were:

- pollution incidents;
- erosion and sedimentation;
- increase in runoff;
- modification of drainage patterns;
- impediments to surface flows;
- modification of groundwater levels and flows;
- effect on water supplies;
- compaction of soils; and
- peat instability.

Watercourses

There are a number of small watercourses within the Site boundary, forming headwaters for two large hydrological catchments: the River Almond and Water of Leith systems. Surface water chemistry is considered good on the Site, however modifications and abstractions downstream lead to overall gradings of Poor from SEPA for these stretches. There is evidence of numerous artificial channels in the central area of the Site. There are a number of small ponds on Site, some of which are clearly modified or artificial in origin.

Flood Risk

There are no areas identified as being at risk of flooding within or immediately downstream of the Site.

Private and Public Water Supply

There are no public water supply sources hydrologically connected with the Site but there are a number of properties with private water supplies located adjacent to and downstream of the Site Boundary. A number of these properties abstract water from the site via the North Pentland Springs collector system, which is maintained by Scottish Water but no longer used for public supply. The infrastructure design has minimised crossings of these assets and limited planned activity in close proximity to individual collectors.

Ground Water Dependant Ecology

There are a number of locations on and adjacent to the Site which contain habitats which are defined as groundwater dependent terrestrial ecosystems. However, these areas are considered more likely to be dependent on waterlogged conditions and primarily surface water and rainwater fed systems.

Impacts of Construction

The main effects on the local area are most likely to occur during the construction phase, with lesser effects during the operational and decommissioning phases.

During construction, and to a lesser extent decommissioning, there is inevitable earthmoving activity which can lead to issues such as sedimentation of watercourses and compaction of soils. Associated with construction activity on Site there is the need for use of fuel, oil and concrete which if uncontrolled can cause pollution to soil and water features. This could have effects upon receptors such as soil quality, water quality, aquatic animals and private water supplies.

Construction of foundations and excavation of the borrow pits could require dewatering activities which may alter local groundwater conditions. These could influence particular habitats or water features which are reliant on groundwater. Obstructions to Site watercourses could disrupt flow patterns and lead to possible flooding upstream. Peat stability can be influenced by earthmoving activities and this could lead to a peat slide where local conditions permit. Such a peatslide could impact upon local watercourses, forestry, tracks or other Site features.

Operational Phase

During the operational phase there is still potential for pollution whilst undertaking turbine maintenance; there is also the potential for longer-term effects related to alterations in drainage patterns where infrastructure interrupts natural surface or groundwater flow. The placement of impermeable infrastructure (such as concrete foundations) may increase surface water flows in local streams over the longer term. These effects could influence groundwater dependent terrestrial ecosystems.

The Project design has taken account of a number of soil and water constraints, avoiding and minimising intrusion into sensitive areas such as watercourses, deep peat and steep slopes, as a preventative measure.

A Site Environmental Management Plan, Site Waste Management Plan and a Soil and Peat Management Plan have been developed, and are designed to be updated with input and further details from local stakeholders and becoming contractually binding for successful contractors.

Mitigation Measures

The prime form of mitigation was through design according to the principles set out above in the section "How the Project was Designed".

A number of mitigation measures will be needed through the construction period and these are outlined below:

- time construction activities to avoid winter periods;
- prevent pollution by following SEPA's Pollution Prevention Guidance, such as good practice for the storage and handling of fuel, oils and chemicals, and for welfare facilities to collect waste for appropriate disposal;

- employ erosion controls and sediment management practices with sustainable drainage systems to include silt traps, sediment ponds and buffer strips to minimise alteration of the natural drainage regime, reduce sedimentation and attenuate peak flows;
- minimise artificial drainage and dewatering activity. Where these are necessary they will be designed to minimise impact on natural surface and groundwater drainage patterns;
- appoint an Environmental Manager to ensure Site environmental management is effective, including the development of emergency response plans;
- monitor surface water, groundwater (including private water supply sources) and slope stability throughout the construction phase;
- maintain a geotechnical risk register and peat stability management.

No Significant Impacts

Taking account of the layout design and mitigation measures it is judged that there will be no significant impacts on the soil and water environment.

Cumulative Effects

A hydrological catchment-based approach has been used throughout our assessment. Site catchments currently display limited development and no other plans for development have been identified in the locale. Given this, no cumulative effect is likely to occur in relation to soil and water issues.

12. ROADS AND TRAFFIC

A study of local traffic conditions looked in detail at the routes to be used for delivering materials and equipment to the project Site.

Transport of Wind Turbines

Wind turbines are large structures which are made off-site and imported to the Site on lorries. Some of the components are very large; for example at Fauch Hill the rotor blades may be up to 45m long and are moved on specially-made low loaders with rear wheel steering to negotiate turns in the roads. Other components, such as the nacelle and gearbox, are very heavy and can cause damage to the structure of roads if care is not taken. Other components and materials also need importing, typically sand, cement and aggregate for concrete production for the turbine foundations, electrical substation equipment, and general civil engineering construction materials and plant.

The area around the Site has roads which are well within their capacity in terms of traffic. In general the roads are in good condition, and structures such as bridges and culverts are sound.

The Proposed Route

The proposed route for turbine components is from the port of entry (POE) at Grangemouth, via main roads direct to the new site access just north of the existing entrance to Fauch Hill Site.

A Traffic Management Plan will be developed to control traffic in a safe manner throughout the construction period.

Analyses of the routes show that:

- the effect of construction traffic on the surrounding road network would be short lived and not significant;
- the surrounding road network has sufficient capacity to accommodate the temporary construction traffic;
- the route from the port of entry at Grangemouth is suitable for turbine delivery subject to a small number of minor improvements;
- there are no load-bearing capacity issues with the proposed abnormal load route;
- swept path assessment shows that the route is suitable;
- there are no significant environmental impacts arising from roads or traffic (for example significant noise or air quality effects);
- to reduce potential road traffic, all excavated material will be used on Site and does not need transporting elsewhere for re-use.

13. AIR AND CLIMATE

An assessment of the project in relation to air quality and climate has been undertaken and this focussed on the following:

- an assessment of the likely effects associated with construction-related dust; and
- an assessment of the predicted effect on climate relative to carbon.

No Significant Effects in Construction

The assessment demonstrated that with the incorporation of standard routine site management measures, construction associated with dust generating activities such as earthworks, excavation of borrow pits and construction of turbine access tracks will not have a significant effect on sensitive receptors within the local area as a result of dust deposition.

Carbon Payback

The evaluation of the project using the carbon calculator has indicated that the proposed scheme will pay back the carbon emissions associated with its construction and operation of between 1.1 and 1.5 years, depending on the basis taken for back-up generation.

The carbon calculator requires back up generation to be considered once wind generated electricity exceeds 20% of the grid mix, which is not currently predicted to occur before 2038, and would affect only 2 years of operational life for the Project.

Assuming a 25 year wind farm life, a 1.1 year payback equates to an overall carbon saving of over twenty times the carbon emitted. The Project will meet its carbon payback well before the need to account for back up generation arises.

14. SOCIO-ECONOMIC, RECREATIONAL DEVELOPMENT AND TOURISM

Socio-economics

A local specialist consultant, BiGGAR Economics, was engaged to conduct a Socio-Economic Assessment of the project.

Fauch Hill Wind Farm represents a major investment with estimated total expenditure of £201 million, consisting of capital expenditure of £98 million and a further £103 million in operating and maintenance expenditure over 25 years.

Benefit to Scottish economy will be 135m and 1067 job years

The estimated economic impact of the wind farm on the Scottish economy is £135 million and 1,067 job years, of which £78 million and 614 job years will be in the Lothians and £58 million and 459 job years of that being in West Lothian. These estimates have been based on reports published by Scottish Enterprise, RenewableUK and the Department for Energy and Climate Change, the experience of previous UK wind farm developments and analysis of the industrial structure of West Lothian, the Lothians and Scotland.

From a socio-economic perspective, the proposed site is particularly well suited to the development of a wind farm and is likely to generate slightly higher economic impacts than it would if located elsewhere due to the suitability of the local West Lothian labour market and supply chain.

The most significant local opportunities are expected to benefit civil engineering companies in West Lothian. The contracts which could be secured by these companies have a value of £7.8 million, which represents more than 8% of the total turnover of the construction sector in West Lothian.

The other potential significant opportunity for West Lothian is the engineering for the grid connections, a total of £5.5million, of which £2.8 million is an opportunity for the engineering activities and related technical consultancy sector, and £2.7 million for the industrial machinery and equipment installation sector and the electrical installation sector.

The economic impact of the wind farm includes operational and maintenance activities during the 25 year operating period. In the West Lothian economy, these have been estimated at 14.9 full-time equivalent jobs and a local Gross Value Added (GVA) impact of £1.7 million per year (£41.4 million over the 25 year operating period).

Another 450 jobs years from Community Benefit and Recreational Development

The Community Benefit funding and the Recreational Development Plan could each support a further 9 full-time jobs, giving a total of 18 full-time jobs, 450 job years over the 25 year operational period. The Recreational Development Plan is also expected to provide a large number of training places, including apprenticeships in activity based programmes.

A high percentage of the West Lothian population is under 16, and the training and apprenticeship opportunities presented by the Recreational Development Plan, in association with the local Oatridge College, are very important to the local community.

BiGGAR Economics has concluded that:

“FHSE has demonstrated an unusual level of commitment to maximising the local economic and social impacts of the Project. This is evidenced by the relationship that has been developed with the Moffat Centre and Oatridge College and the efforts made to assess potential tourism and recreational impacts and opportunities. FHSE is committed to pursuing this approach and maintaining the relationship with the Moffat Centre and Oatridge College if approval is secured, which should ensure that the Project delivers maximum benefit to the local economy.”

Recreational Development Plan

Oatridge College, based in West Lothian, has produced a preliminary Recreational Development Plan for the potential recreational activities at the Fauch Hill Wind Farm (West Colzium & Crosswoodburn Estate). Researchers made extensive site visits and consulted local communities, businesses, representative organisations and individuals to gather opinion on opportunities for recreational activity on the land.

The decision by FHSE to engage Oatridge College to produce a Recreational Development Plan was due to the desire expressed by various members of the public during the public consultation process for recreational facilities and improved access to the southern area of the Pentland Hills Regional Park.

Oatridge College comments that:

'The vision for Fauch Hill is to create a real community asset. The renewable energy theme can be developed as an educational and employment resource, through the provision of a sustainably built and operating interpretation centre. This centre would provide educational resources for school and vocational learners. Further, in the light of wind farm tourism potential as evidenced by the large numbers of tourists visiting other wind farms, Fauch Hill could attract an important number of visitors and could become a strategic access point to the Pentland Hills.'

A new activity and educational/training building will be created to which could house a visitor centre, shops for local craft and food products, cafés and parking facilities for up to 80 cars. A separate area for horse box parking is envisaged away from the main facilities.

Fauch Hill Sustainable Energy will commit to the establishment of a core path route on the Estate, should the wind farm proceed, to improve access to the Pentland Hills which could be incorporated into plans for the strategically important River Almond/Linhouse/Camilty Water route that would create a continuous path link from the large town of Livingston to the Pentlands.

Oatridge College concludes that:

'This has the potential to create a real community asset which will provide a unique activity tourism centre close to Edinburgh, Livingston and the communities in the south east and central belt of Scotland'.

Tourism Assessment

The Moffat Centre for Travel and Tourist Business Development of Glasgow Caledonian University has undertaken a study into the potential impact of the project on tourism, which reviewed and assessed 57 separate key tourist resources that lie within a 10km radius of the proposed Fauch Hill Wind Farm. The bulk of tourism demand generating resources in the local authority area lie to the north of the M8, and the area in the scope of the study area has a relatively low profile within the West Lothian tourism industry.

The most exhaustive evaluation of the impact of wind farms on tourist visit intentions was undertaken by the Scottish Government in 2008 (*The Economic Impacts of Windfarms on Scottish Tourism (2008)*). This nationwide study indicated that the proportion of visitors who would reduce their future visit intention to an area having seen a wind farm is around 1%. This 1% said that whilst they may reduce their visit frequency they would not actually stop visiting. Therefore, it can be concluded that the vast majority of people feel either positively towards wind farms or are indifferent to them in terms of visit intention.

Part of the Pentland Hills Regional Park (PHRP) is within the study area and the Park is the largest tourist attraction within the study area. The most visited resources of the Park are located at its

eastern end, outwith the 10km study area. The Pentland Hills Visitor survey¹ indicates that the area close to the proposed wind farm site is by far the least used, confirming that visitors are generally drawn to where the key attractions and facilities are located.

The Scottish Government's report (*The Economic Impacts of Windfarms on Scottish Tourism (2008)*), shows that of the very small proportion of visitors who may see a wind farm, only 1% would have a negative view of it, and an even smaller fraction of this would actually reduce their intention to visit.

Cumulative ZTVs show that the Fauch Hill Wind Farm introduces additional theoretical visibility to less than 3.5% of the Park area, with approximately half of this being more than 10km from the Site, and therefore outside of the study boundary. Key tourist assets in the PHRP such as the Flotterstone Visitor Centre and the Boghall Headquarters appear to have no theoretical visibility. Walks such as the Glencourse View and the Capital View walk, as suggested in PHRP literature, appear to have no or limited theoretical visibility and are more than 15km from the site. The majority of the car parks associated with the PHRP appear to have no theoretical visibility. A combination of distance, the nature of the activity being undertaken and the fact that a lot of tourist activity indicated is undertaken at ground level all diminish sight of the Project. The impact of the Project on the use of the Park for tourism and recreations has been assessed as low to very low.

The assessment by the Moffat Centre concludes that the proposed wind farm at Fauch Hill will have no discernable influence on the development of tourism in the local area. Furthermore the assessment has noted that Oatridge College has concluded that the potential for additional recreational facilities suggests that there will be an aggregate increase in both tourism resources and demand.

15. AVIATION AND TELECOMMUNICATIONS

Wind Turbines & Radar

Turbines can also affect aviation interests, both through interference with air traffic control radar, in the worst cases potentially "jamming" the signal, to the detriment of aviation safety, and through physical obstruction of aircraft movements, especially military low flying aircraft and aircraft on approach to or departure from nearby airfields.

The turbine layout has been designed to avoid line of sight from the Edinburgh Airport primary surveillance radar.

FHSE will pursue with NATS En Route Ltd a number of potential means of mitigating the effect of the development on the Lowther Hill radar:

- installation of the Raytheon upgrade programme on the Lowther Hill radar;
- blanking of the Lowther Hill radar's coverage over the site, with in-fill coverage from the Edinburgh Airport radar;
- blanking of the Lowther Hill radar's coverage over the site, with in-fill coverage from the Kincardine radar;
- blanking of the Lowther Hill radar's coverage over the site, with in-fill coverage from the Cumbernauld radar.

Military Aviation

¹ Pentland Hills Visitor Survey 2005-2006, TNS Travel and Tourism

The Project lies in controlled airspace only used by the military if under supervision of Edinburgh Airport air traffic control.

Wind Turbines & Telecommunications

Wind turbines have the potential to interfere with telecommunications links by reflecting and refracting signals of various types, including fixed-links operated by utilities, mobile phone transmission, radio and television broadcasts and emergency services radio control.

The assessment of wind farm effects on telecommunications is a well-established process of consultation with operators, mainly co-ordinated through the telecommunication regulator Ofcom. In the case of Fauch Hill Wind Farm no likely effects have been identified, other than the possible deterioration of TV signal at a maximum of three properties where an alternative service, such as satellite TV, could be made available.

16. SHADOW FLICKER

Potential Causes of Shadow Flicker

Wind turbines are tall structures with moving blades, which under certain weather conditions can create a moving shadow. The shadow varies in size and position depending upon the position of the sun in the sky at a given time of the year. Shadow flicker most commonly occurs to the east or west of turbines in line with the setting and rising sun.

Properties potentially affected by Shadow Flicker

Five inhabited properties, two of which are owned by FHSE, lie within the area which could theoretically experience shadow flicker for very short periods on certain days of the year.

Preventing Adverse Effects of Shadow Flicker

The visibility of each turbine from each window of those residential properties which are not owned and controlled by EFRG will be confirmed (with the co-operation of the householders). This will allow a further detailed assessment to be undertaken, which will identify those turbines that have a clear line of site and are within 10 rotor diameters. This detailed assessment will be used to determine whether it will be necessary to fit any turbines with a shadow flicker control package. These packages measure the intensity of sunlight occurring at a particular moment, and together with the date and time, location of the wind turbine and locations of nearby houses, calculate whether shadow flicker will occur and take appropriate action

17. SCHEDULE OF ENVIRONMENTAL COMMITMENTS

A number of mitigation measures have been identified to avoid, reduce or offset potentially significant environmental impacts that would arise as a result of the construction, operation and decommissioning of the project. The mitigation measures identified and reported in the Environmental Statement would form a mandatory schedule of commitments under the contract(s) for construction and future management and maintenance of the project.

18. OTHER CONSIDERATIONS

Health & Safety

Health and Safety during construction is discussed in the Construction Method Statement that accompanies the application for consent.

Road Safety for construction traffic and abnormal load deliveries is discussed in the Transport Assessment that accompanies the application for consent.

Health and Safety during operation is discussed in the Operations Method Statement that accompanies the application for consent.

RenewablesUK publish guidance known as "The Wind Turbine Safety Rules (WTSR)". These rules will be integrated into the HS&E rules and programmes for the Fauch Hill Wind Farm.

Safety of the public is paramount both in Project construction and operations. Systems for safeguarding public safety are set out in the Construction Method Statement and the Operations Method Statement.

The Construction, Design and Management Regulations 2007 (CDM) place a number of obligations upon FHSE. Accordingly:

- FHSE has appointed a CDM Design Coordinator (Mouchel) as required by the CDM Regulations; and
- A Principal Contractor will be appointed as required by the CDM Regulations. The duties of the Principal Contractor are discussed in the Construction Method Statement.

Pre-Application Public Consultation

Fauch Hill Sustainable Energy (FHSE) has taken an open approach to its extensive public consultation programme, and a proactive role in introducing the Project to the public at a very early stage, more than six months before the first public exhibitions. The general public and stakeholders have been updated regularly via briefing letters, a website, meetings, exhibitions and press releases as to the progress of the project.

FHSE has engaged with an extensive list of stakeholders, from Councillors to interest groups, community councils, the Fauch Hill Liaison Forum and members of the general public. More than 40 meetings have been held with these various groups.

Two series of public exhibitions were held before the application was submitted. In addition, two special meetings were held in conjunction with the second series of public exhibitions.

Each public meeting and exhibition had a landscape architect in attendance with a computer simulations programme to assist members of the public to visualise the wind farm from views of their choice, as well as by members of the FHSE team, who were available to assist with any other questions that people may have had.

Locations chosen were accessible, and the exhibitions had long opening hours to enable all members of the community to attend, including those working, working shifts, with childcare considerations and those who prefer to travel during daylight.

Each series of exhibitions was advertised in the local newspapers, and by delivery of between 13,600 and 14,000 flyers to local homes within a 10km radius of the Wind Farm.

As a result of wide consultation, the Project has been revised substantially, with the total number of turbines being reduced by almost 50% from 43 to 23, and the maximum tip height having been reduced from 155m to 125m.

Additional outcomes of this extensive consultation process have been: the engagement of Oatridge College to produce the Recreational Development Plan to provide improved access to the PHRP and new recreational facilities, and a commitment by FHSE to a program of Community Benefits in conjunction with the West Lothian Development Trust.

The Fauch Hill Liaison Forum was established for members of the local community, as well as interest groups, community councils and individuals. The first meeting was held on March 26th 2011, and has provided an excellent opportunity for members of the community to present their views and ask questions of FHSE, and for FHSE to keep the public informed of progress of the project.

Community Benefits

FHSE has committed:

- to pay a community benefit of £4,000 per MW installed, a total of £6.9million over the life of the project;
- to provide a local infrastructure fund to the value equivalent of an additional one year's benefit;
- to provide an investment plan for members of the community;
- to pay for the infrastructure on the Site that will be associated with the implementation of the Recreational Development Plan.

The combination of these elements means that the local community is benefitting significantly from the Fauch Hill Project.

19. SUMMARY

The Project will consist of 23 turbines with internal transformers, each with a nominal capacity of up to 3 MW, 22 with a maximum blade tip height of 125 m and 1 of 115m. The total installed project capacity will be a maximum of 69 MW, sufficient to power a total of 42,000 of households with clean, green, renewable electricity.

It is inevitable with projects of this type and scale that there will be some local impacts, both during the construction phase and afterwards. The project has been subjected to a long and intensive process of surveys and assessments, the results of which are reported in this ES. Mitigation measures for the impacts which have been identified to occur through the construction period will be undertaken and are listed in Schedule of Environmental Commitments. The process also identified potential longer term impacts on the environment and was used to guide the design through a number of iterations to avoid or remove those impacts. The objective was to avoid the use of post design mitigation and design out any impacts conflicts, thereby achieving mitigation by good design and avoidance.

Key examples of this approach are:

- reductions in turbine numbers of almost 50% from 43 to 23;
- reductions in blade tip height of nearly 20% from 155m to 125m maximum;

- the layout of the wind farm has been adjusted to produce a more harmonious visual appearance;
- turbines closest to properties in the original design have been removed.

In any construction work a potential for pollution incidents is present. Prevention is seen as the best form of mitigation for this, and a number of measures have identified to protect, waterways and other environments throughout the construction phase.

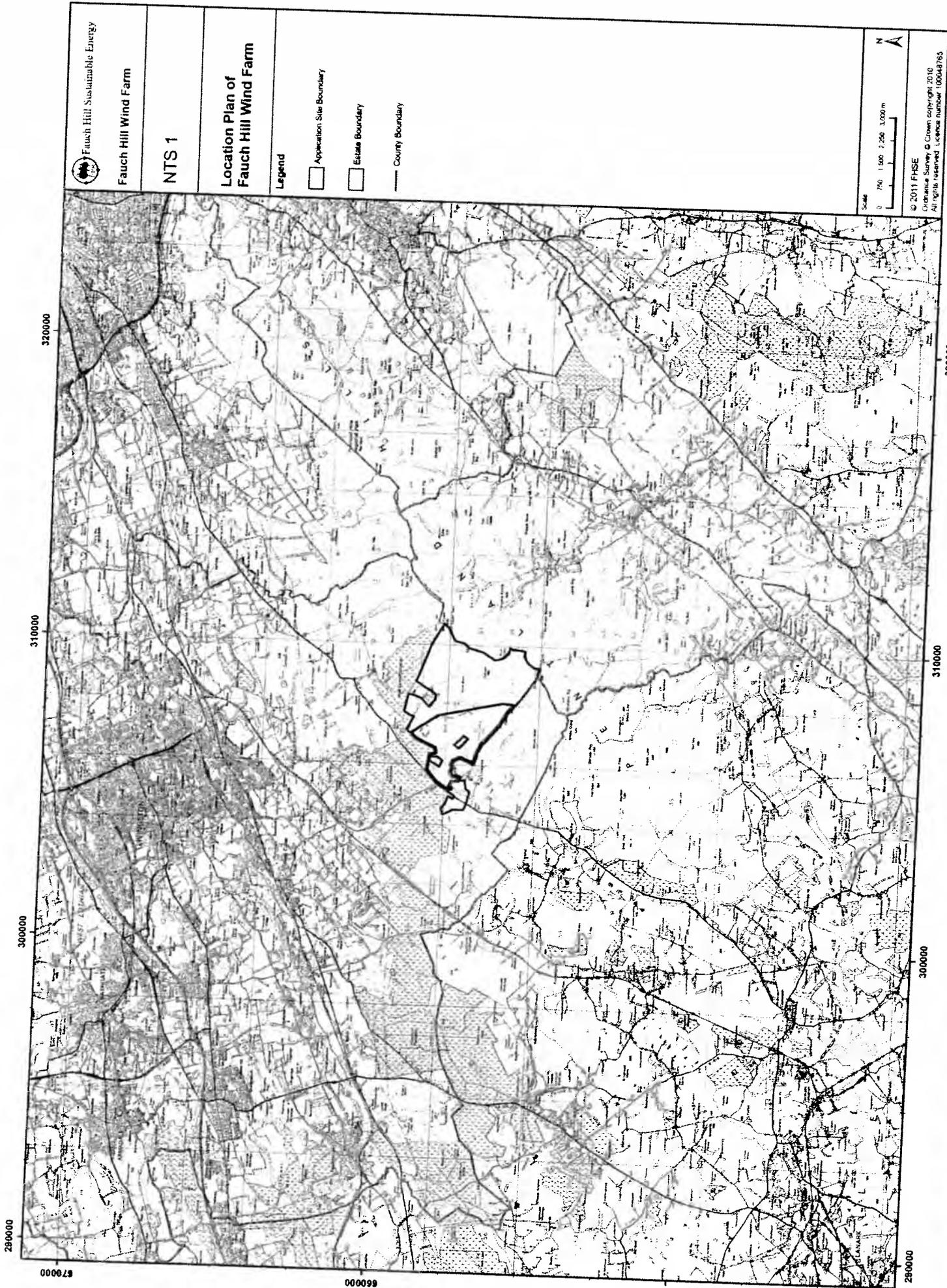
An Ecological Clerk of Works will be appointed to ensure compliance with the environmental plans and requirements through construction.

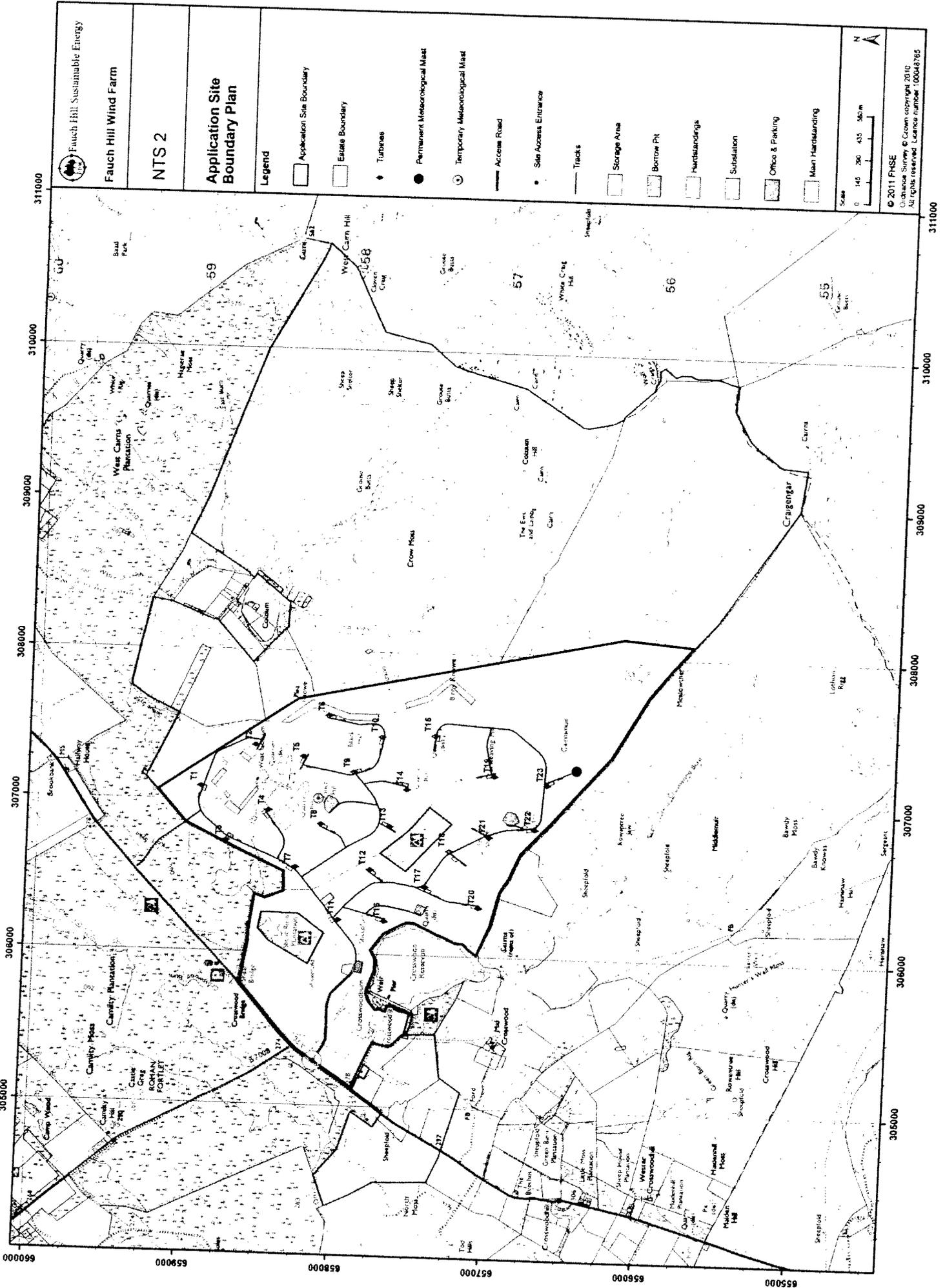
An HS&E Manager (Health, Safety and Environment) will be appointed to assure compliance with Health and Safety requirements, as well as Environmental compliance.

The assessment has concluded that the essential nature of the Pentland Hills Regional Park and AGLV will not be adversely affected and the Project will not significantly affect the character of the hills as a place for peaceful enjoyment of the countryside.

The very nature of wind farms means that locally some significant effects on landscape character and visual amenity may remain even after the best design practice and mitigation have been taken into account. These localised effects are counterbalanced by the following benefits over the 25 year life of the wind farm:

- 69MW of clean, green electricity production capacity, sufficient to supply 42,000 homes;
- a direct community benefit in excess of £7million
- enhanced access to the neighbouring Pentland Hills Regional Park, and provision of recreational facilities and amenities on the Site;
- total expenditure of over £200million; and
- the creation of employment amounting to 1,517 full time equivalent job years.





Fauch Hill Sustainable Energy
Fauch Hill Wind Farm
NTS 2
Application Site Boundary Plan

Legend

- Application Site Boundary
- Estate Boundary
- Turbines
- Permanent Meteorological Mast
- Temporary Meteorological Mast
- Access Road
- Site Access Entrance
- Tracks
- Storage Area
- Borrow Pit
- Handstandings
- Substation
- Office & Parking
- Main Handstanding

Scale: 0 145 290 435 580m

N

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Scottish Government Consultation 12/00469/SGC
at
Land at West Colzium,
West Lothian

Development Management Sub-Committee
of the Planning Committee

DEPARTURE FROM THE DEVELOPMENT PLAN

The development proposed by this application is a departure from the development plan.

1 Purpose of report

To consider application consultation 12/00469/SGC, submitted by Fauch Hill Sustainable Energy Ltd. The application is for: **S36 Application for consent to construct and operate the Fauch Hill wind farm together with ancillary infrastructure.**

It is recommended that the Council **Raise objections to this Consultation**

2 The Site and the Proposal

Site description

The site lies within the south western part of the Pentland Hills approximately 8 km south of West Calder. It sits to the west of West Cairns Plantation at West Colzium and Crosswoodburn. It comprises the northern slopes of Black Hill and Torweaving Hill, which lie to the east of Crosswood Reservoir. The site slopes from southeast to northwest from approximately 400m AOD to

290m AOD. The northwest boundary of the site runs along the A70. The boundary of the City of Edinburgh Council is located approximately 7 km along the A70 to the northeast of the site.

The site comprises grassland fields and several coniferous plantations.

Site History

There is no known site history.

Description of the Proposal

The proposed wind farm comprises the following components:

- 23 wind turbines, each up to 3MW capacity. Approximately 125m height to blade tip, with a blade diameter of 90 m and hub height of 80m. (turbine No. 19 to be restricted to 115m overall height);
- Turbine foundations and crane hard standings for each turbine;
- On-site access tracks and roads, including watercrossings;
- A permanent meteorological mast of up to 80m height;
- A control building and substation;
- Borrow pits;
- Construction compound and lay down areas; and
- Cabling between turbines and control building.

3 Officer's Assessment and Recommendations

ASSESSMENT

Background

Applications for renewable energy developments that have capacity to generate in excess of 50 MegaWatts (MW) of electricity are made to and determined by the Scottish Ministers, in accordance with the provisions of Section 36 of the Electricity Act 1989.

An application for consent under Section 36 includes an application deemed planning permission under section 57(2) of the Town and Country Planning (Scotland) Act 1997 (as amended).

The application is accompanied by an Environmental Statement (ES) required under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000.

The City of Edinburgh Council has been consulted by the Scottish Government Energy Consents Unit because it is a neighbouring authority.

Landscape and Visual Effects

Renewable energy technologies, including wind farms, can make an important contribution to the reduction of greenhouse gas emissions, in line with the Scottish Government's Climate Change targets. However, these benefits must be balanced with the need to protect and enhance the environment, including the landscape and visual resource.

Wind farms tend to give rise to major changes to the character of, and views within, the landscape. This can be due to the structural form of turbines, their size, location, colour, movement, grouping and scale in relation to the surrounding topography. Some of these effects can be addressed through appropriate siting and design, though it is likely residual impacts will occur.

The proposed Fauch Hill wind farm adjoins the western boundary of the Pentland Hills Regional Park (PHRP) at West Cairns Plantation. The Hills are subject to continuous coverage by local landscape designations within each constituent local authority. The proposal is sited within the West Lothian Area of Great Landscape Value (AGLV), which applies to the Pentland Hills.

The ES concludes that the proposal will give rise to significant impacts on the landscape and visual resource within a distance of 5 km from the proposal. It advises that the remainder of the Regional Park and AGLV will generally remain unaffected. The following paragraphs assess the proposals:

1. Landscape Effects

The proposal would extend the footprint and influence of large scale wind energy development in the upland fringe to the south of the A70. The Hills provide a natural barrier to the main road network, which heighten their rural character and sense of remoteness. The Lanark Road marks a perceptible transition between the upland landscape of the Pentland Hills to the south and their gently sloping fringes and the lowlands to the north and west.

The vertical form, scale and movement of 23 wind turbines of approx. 125m height, contrasts with the modest elevation, simple vegetation cover and remote upland character of the Pentland Hills. There are currently no wind energy projects of this scale sited amongst the upland topography and the proposal would be detrimental to the characteristic pattern of the landscape.

The significant impacts predicted would occur within the environs of Harperrig Reservoir and East Cairn Hill. This represents a sizeable area, which equates to the western quarter of the Regional Park and lies within the Pentland Hills' AGLV. The affected areas are considered to be integral elements of the designated sites and vital to their recreation and natural heritage objectives. The Council concludes the landscape has no capacity to accommodate this development without unacceptable adverse effects upon its character.

2. Visual Effects

The visibility mapping illustrated in Figure 2.25 of the ES reveals that East and West Cairn Hill shield views of proposal from the much of PHRP in Midlothian, as evidenced from Carnethy Hill (13.3km to the nearest turbine). However, it also demonstrates that the proposal will potentially be visible from across the northern slopes and summits within the Regional Park. These areas fall within the City of Edinburgh Council's administrative boundary and its AGLV, this applies to the Pentland Hills. The Council therefore disagrees, that the remainder of the PHRP and AGLVs will be unaffected. In addition, the maps show broad areas of full visibility across western parts of the urban area and rural west Edinburgh.

Within the Pentland Hills, the pattern of visibility relates to hill slopes and summits accessed from several key gateway routes into the Regional Park from the City of Edinburgh, such as Swanston, Dreghorn, Bonaly Country Park and Harlaw and Threipmuir Reservoirs. The Regional Park represents an area of regionally unique topography, which provides important opportunities for countryside recreation for residents of Edinburgh and the Lothians.

The Hills' combination of flanking farmland, woodland and reservoirs, rising to rugged upland summits is considered to be of locally important scenic value. Whilst it is acknowledged that woodland and shelterbelts will restrict views from elevations below 270m AOD, the Hills' upper slopes and summits have an open aspect. From these elevated locations, views are channelled westwards along the Hills' steep northern face by their southwest-northeast alignment.

i. North-eastern Summits

Between 19 and 23 turbines will be visible from the PHRP's north-eastern summits of Capelaw, Allermuir and Caerketton Hills (located 16 - 18km east-northeast from the nearest turbine within the City of Edinburgh Council's boundary) and from much of the ridgetop route running between them. In westward views from these locations, the proposed wind turbines display an awkward relationship to East Cairn Hill:

- a. The structures are viewed next to East Cairn Hill and rise to about half its height, diminishing the stature of the hill range.
- b. The proximity of tall structures to the distinctive northern profile of East Cairn Hill obscures the clear contrast between the upland landscape and lower lying land to the north.

The ES states that visibility of the proposal beyond a distance of 5 km will be restricted to localised hill summits. However, this Council considers the Pentlands' northern slopes and hill top vantage points to be amongst the most important destinations for a great number of visitors. Those who come to the PHRP to appreciate views of the wider landscape will be highly sensitive to changes to the character of the landscape and the scenic value of views.

ii. Harlaw

The visibility mapping shown in Figure 2.25 also identifies a broad area to the east of Harlaw Reservoir, south of Balerno (located 12.5 km east-northeast from the proposal within the City of Edinburgh Council's boundary) from which the proposal will potentially be highly visible.

From the path running between Harlaw House Ranger Centre to Glencorse Reservoir, via Maiden's Cleugh, the proposal will form a new focal feature on the western skyline; contrasting with the naturalistic shoreline of Threipmuir reservoir, which draws the eye westwards across the landscape to the north of Black Hill. This is a well used area of the Regional Park and visitors will be highly sensitive to changes to the character of the landscape and the scenic value of views. This impact is not fully demonstrated by Viewpoint 20, Den's Cleugh, which is set back within a narrow glen.

iii. Views from Edinburgh's urban area and rural west

The Pentlands' prominence as the primary landscape feature of the Lothians stems from their commanding position above the settled coastal margin and lowlands to the north. This provides a distinctive and continuous skyline backdrop to a heavily populated area, which should be protected from development as set out in Lothians Landscape Character Assessment, commissioned by SNH (1998).

From parts of western Edinburgh, as illustrated by Viewpoint No. 27, Clermiston (20.4km to the northeast of Fauch Hill) the array of 23 turbines will form a new skyline feature on the ridgeline of the Pentland Hills. Similar effects are exhibited from viewpoints to the north and west in West Lothian. Altering one the key characteristics of the Lothians' landscape is considered to be unacceptable and detrimental to the Hills' regional and local environmental interests.

3 Cumulative Landscape and Visual Effects

In addition to the individual effects of the development, the ES reports that the scale and proximity of further wind energy developments, in conjunction, with the proposals, will give rise to cumulative effects upon landscape character and visual amenity within the PHRP and AGLV. The most relevant wind farms proposals which have combined visibility with the Fauch Hill development are:

- a. Harburnhead, 21 turbines of up to 126m height, 1 turbine of 119m height, located immediately to the north of Fauch Hill and the A70.
- b. Harrows Law, 17 turbines of up to 115m height, located 2.5 km to the southwest of Fauch Hill along the A70.

This Council considers that Fauch Hill wind farm, in conjunction with the Harburnhead and Harrows Law proposal, will intensify the influence of wind energy within the upland landscape of the designated sites. This will be remarkable in terms of visual impact from the slopes, summits and gateways to the Park described above, by increasing the concentration and extent of wind turbines on the western skyline.

Conclusion

In light of the above considerations, the City of Edinburgh Council wishes to raise objections to the application on the grounds of the detrimental impact to the integrity of the landscape, visual and recreational resource of the Pentland Hills Regional Park and its corresponding Area of Great Landscape Value. The proposal is therefore contrary to Policy ENV 1 D (Regional and Local Natural and Built Environment Interests) of the Edinburgh and Lothians Structure Plan 2015.

John Bury
Head of Planning and Building Standards

Contact/tel	Andrew Smith on 0131 469 3762
Ward affected	WLC - West Lothian Council
Local Plan	
Statutory Development Plan Provision	
Date registered	17 February 2012
Drawing numbers/ Scheme	

Advice to Committee Members and Ward Councillors

If you require further information about this application you should contact the Scottish Government Energy Consents Unit, 4th Floor, 5 Atlantic Quay, 150 Broomielaw, Glasgow, G2 8LU or by email at: energyconsents@scotland.gsi.gov.uk

If this application is not identified on the agenda for presentation, and you wish to request a presentation of this application at the Committee meeting, you must contact Committee Services by 9.00a.m. on the Tuesday preceding the meeting on extension 4229/4239. Alternatively, you may e-mail gavin.king@edinburgh.gov.uk or carol.richardson@edinburgh.gov.uk

Application Type Scottish Government Consultation
Application Address: Land at West Colzium,
West Lothian

Proposal: Application for consent to construct and operate the Fauch Hill wind farm together with ancillary infrastructure.

Reference No: 12/00469/SGC

Consultations, Representations and Planning Policy

Consultations

No consultations were carried out for this inter-authority consultation.

Representations

No representations were received for this consultation.

Planning Policy

ENV 1 D: Regional and Local Natural And Built Environment Interests, Edinburgh and the Lothians Structure Plan 2015

Development affecting the following regional or local areas of natural heritage and built environmental interest, or their settings, will only be permitted where it can be demonstrated that:

- a) The objectives and overall integrity of the designated area will not be compromised; or
- b) The social or economic benefits to be gained from the proposed development outweigh the conservation or other interest of the site.

Conservation Areas

Areas of Great Landscape Value or other local landscape designations defined in local plans

Pentland Hills Regional Park;

Country Parks;

Defined core and local path networks;

Local Nature Reserves;

Regionally Important Geological and Geomorphological Features;

Sites of archaeological interest;

Designated Wildlife Sites;

Peatland;

Prime agricultural land;

Water supply catchment areas; and

Areas of significant open space within urban areas.

Local plans should define the extent of these interests and include policies and where appropriate proposals, for their protection and enhancement.

Policy 10: Sustainable Energy Technologies (Proposed SDP)

The Strategic Development Plan seeks to promote sustainable energy sources. Local Development Plans will:

- a) Support the future development and associated infrastructure requirements of Longannet and Cocksfoot power stations in relation to their role as non-nuclear, baseload capacity generators, Energy Park Fife at Methil, and developments connected with offshore renewable energy in Leith and Rosyth; and
- b) Set a framework for the encouragement of renewable energy proposals, taking into account relevant economic, social, environmental and transport considerations.

Application Type Scottish Government Consultation
Application Address: Land at West Colzium,
West Lothian

Proposal: Application for consent to construct and operate the Fauch Hill wind farm together with ancillary infrastructure.

Reference No: 12/00469/SGC

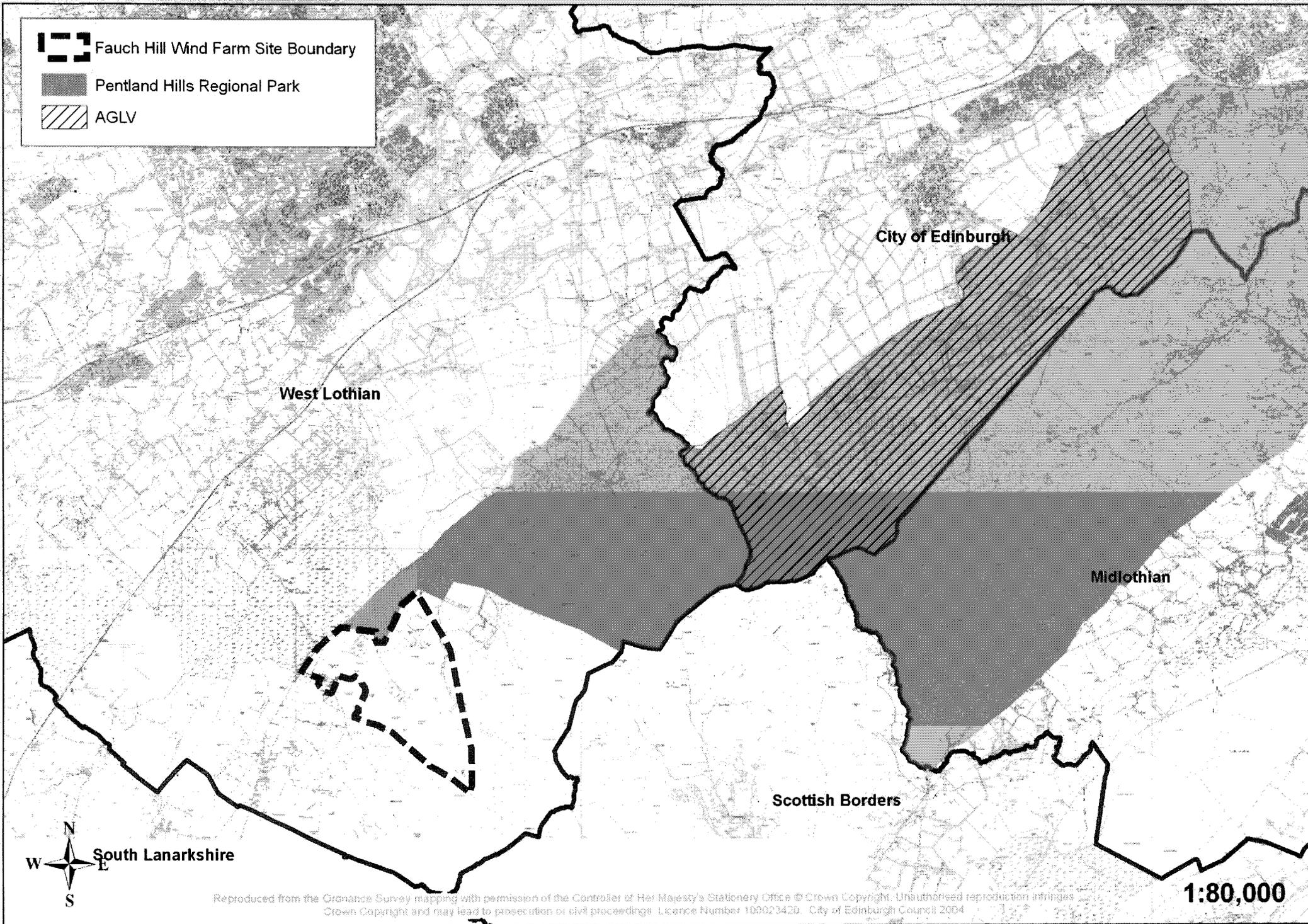
Conditions/Reasons associated with the Recommendation

Recommendation

To recommend that the Council **Raise objections to this Consultation**

End

-  Fauch Hill Wind Farm Site Boundary
-  Pentland Hills Regional Park
-  AGLV



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Development Management

County Buildings
Linlithgow
West Lothian
EH49 7EZ

Tel: 01506 282480
Fax: 01506 282449

Our Ref: 0077/EXC/12

Direct Dial No: 01506 282410

Email: tony.iring@westlothian.gov.uk

29 June 2012

Debbie Flaherty
Energy Division
Energy and Climate Change Directorate
Scottish Government

By email only to econsentsadmin@scotland.gsi.gov.uk

Dear Ms Flaherty

Consultation on formation of a wind farm consisting of 23 turbines (125m to blade tip) with associated infrastructure (grid ref. 306132 658212) at Fauch Hill, West Calder

I refer to your consultation letter of 2 February 2012.

The proposal was the subject of a report to Council Executive on 25 June 2012. The decision was to object to the proposal. I attached the report to committee and the reasons for the objection.

Please contact me should you have any queries.

Yours sincerely

Tony Irving
Planning Officer



COUNCIL EXECUTIVE

CONSULTATION RESPONSE ON A WINDFARM PROPOSAL AT FAUCH HILL, COLZIUM, WEST CALDER

REPORT BY HEAD OF PLANNING AND ECONOMIC DEVELOPMENT

A. PURPOSE OF REPORT

The purpose of this report is to advise Council Executive of the council's role as a statutory consultee under Section 36 of the Electricity Act 1989 in respect of a proposal to construct a windfarm at Fauch Hill, by West Calder, and to approve a response to that consultation.

B. RECOMMENDATION

It is recommended that the Council Executive:

- 1 notes that a windfarm proposal for Fauch Hill has been submitted to the Scottish Government;
- 2 notes that the scale of the application requires it to be progressed by the Scottish Government, rather than by the council as planning authority;
- 3 notes that the council, as planning authority for the area of the proposal, is a statutory consultee;
- 4 notes that officers consider that the proposal will have unacceptable impacts on landscape and visual amenity, particularly in the Area of Great Landscape Value and the Pentland Hills Regional Park;
- 5 notes that officers also consider that the proposal is unacceptable because of the cumulative impact of windfarms on the southern boundary of West Lothian; and
- 6 delegates the Head of Planning & Economic Development to lodge an objection to the proposed windfarm, with the terms of the objection base on the detail in this report and appendices with specific reference to landscape, visual and cumulative impacts.

C. SUMMARY OF IMPLICATIONS

I Council Values

Focusing on our customers' needs; being honest, open and accountable; making best use of our resources; and working in partnership.

II Policy and Legal (including Strategic Environmental Assessment, Equality Issues, Health or Risk Assessment)	The scale of the application dictates that it is progressed under the Electricity Act 1989. The council's response should be framed within the terms of the Town and Country Planning (Scotland) Act 1997, the Environmental Impact Assessment (Scotland) Regulations 2010 and the development plan for the area.
III Implications for Scheme of Delegations to Officers	None.
IV Impact on performance and performance Indicators	None.
V Relevance to Single Outcome Agreement	<p>Outcome 10 – We live in well-designed, sustainable places where we are able to access the services we need.</p> <p>Outcome - 12. We value and enjoy our built and natural environment and protect it and enhance it for future generations.</p> <p>Outcome 15 - Our public services are high quality, continually improving, efficient and responsive to local people's needs.</p>
VI Resources - (Financial, Staffing and Property)	If the council objects to the proposal it will have to be represented at a public inquiry into the proposal. The cost of doing so will be managed from within service budgets.
VII Consideration at PDSP	An extension of time to allow the matter to be considered by the Development & Transport PDSP was requested, but not granted.
VIII Other consultations	None.

D. TERMS OF REPORT

D1 Introduction

Fauch Hill Sustainable Energy Ltd., a subsidiary of European Forest Resources, and owned by French energy group Louis Dreyfus, has submitted plans to construct a wind farm on countryside in the Pentland Hills Area of Great Landscape Value. The scheme, which would have an operational lifespan of 25 years, would comprise of 23 turbines each with a nominal capacity of 3MW. 22 turbines would have a maximum height of 125m and one would have a height of 115m. The installed capacity of the site could provide sufficient power for some 42,000 households.

As a consequence of the capacity of the site, which could produce in excess of 50MW of electricity, authorisation for the development is sought from the Scottish Government through Section 36 of the Electricity Act 1989. A significant volume of objection has already been lodged to the proposal and, given this, it is likely that the Scottish Government will hold a public inquiry prior to determining the application. If the council, as the planning authority for the area, objects the Scottish Government will require to hold a public inquiry.

This report sets out the planning considerations relative to the determination of the case and concludes by recommending that the council should object to the proposal. A series of annexes attached to the report provide a background to the recommendation to oppose the scheme.

Annex I sets out a summary of the proposed scheme.

Annex II is a note relating to community benefit.

Annex III provides a summary of the range of objections received by the Scottish Government on the proposal.

Annex IV gives a summary of the consultation response from Scottish Natural Heritage on landscape matters.

Annex V is an assessment of the proposal in the context of local and national planning policy.

Annex VI is a summary of other material planning considerations.

A full set of documents relating to the proposal is available for inspection from Committee Services in the Civic Centre, or via the contact officer at County Buildings.

D2 Planning considerations.

The West Lothian Local Plan sets out that renewable energy schemes will be looked on favourably if the scheme is acceptable in planning terms and does not give rise to unacceptable environmental effects including cumulative landscape and visual impact. Against these tests a number of schemes have been supported in West Lothian.

In forming a view on the proposed development, members should note the effects that the development would have in landscape and visual impact terms. These impacts must be seen in the context of the Pentland Hills generally and, in particular, the designated Area of Great Landscape Value (AGLV) and the Pentland Hills Regional Park

D3 Landscape and visual impact

The applicant's environmental statement concludes that the development would have significant adverse effects, "in a localised area" on the Pentland Hills AGLV and the Pentland Hills Regional Park. To the applicant this significant level of impact would not adversely impact on the overall integrity of the designations or landscape types. Other significant effects occur from the settlements in Woolfords, Tarbrax and Wester Causewayend, from the A70, from Harperrig reservoir, and from identified summits in the Pentland Hills.

To this end, Scottish Natural Heritage (SNH) has submitted an extensive representation on the case to the Scottish Government. This submission, summarised in Annex IV, comprises a detailed assessment of the landscape and visual impacts and serves as a comprehensive overview of these pivotal factors. To SNH the development would have significant adverse landscape and visual impacts, both on its own and cumulatively.

The council, in conjunction with SNH, commissioned a 'Landscape Capacity Study for Wind Energy Development in West Lothian'. While the study has not yet been formally progressed as supplementary planning guidance (SPG), it shows the site with the 'Western Pentland Hills' landscape character unit. The study identifies this as an area of highest landscape sensitivity in landscape character terms.

Against this background, the proposed windfarm would affect the landscape character of the area by marring the skyline, changing the remote sense of place, and by dominating traditional views of the Pentlands, including from the A70. The proposal is outwith any area considered suitable for windfarm development in the study. The substantial degree of landscape change that would be caused by 23 wind turbines in an area recognised for its outstanding scenic qualities would be, in the officers' view, unacceptable in landscape and visual impact terms.

D4 The Pentland Hills

In coming to a view on the application it is important to understand the unique setting of the proposal on the north-west fringes of the Pentland Hills. The proposal is in the Pentland Hills Area of Great Landscape Value and shares a common boundary with the Pentland Hills Regional Park in the vicinity of West Cairns Plantation. The adjoining Pentland Hills Regional Park was established by the former Lothian Regional Council in 1990s with the specific aims of:

- i) retaining the essential character of the hills for the peaceful enjoyment of the countryside;
- ii) caring for the hills so that the landscape and habitat is protected and enhanced;
- iii) the encouragement of responsible public enjoyment; and
- iv) the co-ordination of these objectives so that they co-exist with other land uses in the designated area.

The applicant acknowledges that, in landscape terms, the development would have a 'major' effect on the Pentland Hills Regional Park which, locally, is 'significant' within 5km and 'moderate' beyond that distance. It would also have a moderate / major effect on the AGLV which is locally significant within 5km. It would also have a moderate to major effect on the landscape character types of the Pentland Hills.

To put this in a wider context, the Council Executive should note that in the May 2012 appeal decision on the Harrows Law windfarm that adjoins the council's boundary with South Lanarkshire, the reporter concluded that "the [Pentland] range forms a distinctive single massif some 30km long"; "The whole massif ... dominates in views from the surrounding countryside as well as from the A70"; and that "The whole massif creates its own distinctive skyline, which is visible over an extremely wide area and forms an undeveloped, contrasting and apparently wild backdrop to the surrounding domesticated agricultural and settled fringe landscape".

Additionally, the reporter describes the Pentland Hills as being “an empty and iconic landscape”.

To SNH, the Pentland Hills are a landscape feature of primary importance to the Lothians and Scotland’s central belt and the Pentland Hills are an elongated island of relative wild country.

The environmental statement produced by the applicant confirms that the landscape character types of the Pentland Hills, the Pentland Hills Regional Park and the Pentland Hills AGLV will experience a significant effect if the development was to proceed. To the applicant, the consequences of these effects are not of significance, as it does not result in a definitive change to the character of the area. The applicant also sets out that the proposals do not impact on the most popular parts of the Regional Park, and that there will be a “limited effect” on the regional park.

By way of contrast, SNH, the Pentland Hills Regional Park Authority, the City of Edinburgh Council and South Lanarkshire Council all object to the proposal on landscape grounds. The terms of these objections are set out in Annex III.

D5 Cumulative Impacts

Fauch Hill is one of several windfarms proposed for south-west West Lothian and north-east South Lanarkshire. Applications for Harburnhead and Peerie Law will be considered by the Council Executive and the Development Management Committee later this summer. Further proposals may be submitted at Hunter’s Well, west of the current site, and at Camilty north-west of the site. South Lanarkshire has a proposal for a three turbine extension of Muirhall windfarm.

Members should be aware that the refusal of the Harrows Law application does not diminish the potential cumulative effects that this development would have, taking into account the areas of expressed interest. The applications at Harburnhead and Peerie Law will be assessed on their own merits later this summer. The proposal for Camilty may be submitted to the council later this year and, at present, there is no indicative timescale for the submission of that at Hunter’s Well.

Of all proposals for windfarms in south-western West Lothian, that at Fauch Hill gives rise to a significant amount of tension with planning policy. A decision to allow the current application to proceed would be a benchmark for judging the other schemes which may have to be discounted because of cumulative effects.

E. CONCLUSION

The proposed windfarm at Fauch Hill could assist in meeting the Scottish Government’s targets for renewable energy. The extensive submission, including a comprehensive environmental impact statement has shown that, the scheme, could be developed without having significant adverse environmental effects other than in landscape and visual amenity terms.

As set out in this report and its annexes, the proposed development will have a very significant adverse impact on the landscape and in terms of visual amenity in one of the most unspoiled areas of countryside in West Lothian. It is located in a particularly attractive part of the Pentland Hills when seen from the A70 in the vicinity of Harperrig reservoir.

A windfarm in this area will breach the principles of landscape protection as set out in the development plan and Scottish Planning Policy. Two adjoining local authorities, the Pentland Hills Regional Park authority and Scottish Natural Heritage have submitted extensive and detailed objections because of the adverse landscape and visual effects that the scheme would have.

If the development was to proceed 23 moving turbines up to 125m in height, together with access roads and ancillary development would erode the unspoilt Pentlands landscape that is designated for its scenic qualities, reducing the sense of unspoilt wild land. Given the extent of other windfarm developments currently operational or consented further west in West Lothian, as well as those schemes that are currently undetermined, the development would give rise to an adverse cumulative impact of windfarms.

The proposal cannot be assessed favourably in the context of the development plan and Scottish Planning Policy, nor in the context of the Landscape Capacity Study jointly commissioned by the council and Scottish Natural Heritage.

Accordingly, it is recommended that the council submits an objection to the consultation request received from Scottish Government based upon the terms of this report.

F. BACKGROUND REFERENCES

Fauch Hill Wind Farm, Environmental Statement, and associated documentation (8 volumes).

Consultation Responses received by Scottish Government.

Representations received by Scottish Government.

West Lothian Landscape Capacity Study.

Appendices/Attachments:

Annex 1 The proposed development
Annex II Community benefit
Annex III Representations and Consultations
Annex IV A summary of the landscape case made by Scottish Natural Heritage
Annex V Planning Policy Assessment
Annex VI Other material considerations
Annex VII Location Plan

Contact Person: Chris Norman, Development Management Manager
chris.norman@westlothian.gov.uk 01506 282412

Steve Field, Head of Planning and Economic Development

25 June 2012

Annex 1 The Proposed Development

This is a brief synopsis of the project. Full details can be found in the application and accompanying reports which are available from Committee Services at the Civic Centre, or from the case officer at County Buildings.

The location of the proposed wind farm at Fauch Hill is set out in the applicant's non technical summary. A copy of the location plan is appended to this report. It is some 2.5km west of West Cairn Hill and adjacent to Crosswood Reservoir, a local fishery. As well as the 23 turbines, the development of the site will include the formation of internal access roads, the winning of aggregate from three 'borrow pits', turbine foundations, crane pads, a control building, an 80m high permanent lattice mast, an on-site substation, a temporary construction compound and a control building. Consent is sought for a period of 25 years.

Since its initial inception, and in view of the sensitivity of the site, the applicant has sought to decrease the environmental impact of the development by reducing the size of the scheme from the initial 43 turbines to the current 23 turbines scheme.

A new access to the site will be formed from the A70 to enable construction work to take place.

A full construction method statement has been submitted with the Section 36 application along with a site management plan, which contains extensive environmental safeguards.

At its peak, around 80 people will be employed during the construction period. During the operation phase of the development, a staff of three will be required to carry out periodic maintenance.

In addition to the construction and operation of the windfarm, the applicant has commissioned a study to examine, from his perspective, the means of "improving" outdoor recreation on the land for walking, cycling and horse riding. A draft recreational development plan is included in the application and, if Scottish Ministers are minded to grant deemed planning permission for the development, this could be implemented as part of any consent. The recreation plan is reliant on the car parking used for the construction to provide enhanced visitor access and a visitor centre would be constructed on the site of the construction offices.

Part of the proposals include a habitat management plan and a plan to manage existing forestry on land owned by the applicant.

Decommissioning and restoration of the site would take place after the expiry of the 25 year period.

Annex II Community Benefit

The applicant has been in extensive discussions about community benefit with adjoining community councils and other local interests, including the Pentland Hills Regional Park Authority.

Additionally, the applicant has issued widespread publicity material which sets out the developers' wish to offer communities 'benefit packages' which could amount to £7m-£10m over the 25 year lifetime of the windfarm.

Members should be aware, in coming to a view on this consultation response, that paragraph 186 of Scottish Planning Policy (SPP) confirms that the delivery of community benefit is not a material planning consideration and thus should play no part in the consideration of the planning implications of the development unless it accords with all of the tests set out in Circular 1/2010 'Planning Agreements'. Those tests, which are not met in this case, are as follows:-

- to make the proposed development acceptable in planning terms;
- serve a planning purpose and, where it is possible to identify infrastructure provision requirements in advance, should be relevant to development plans;
- relate to the proposed development either as a direct consequence of the development or arising from the cumulative impact of development in the area;
- fairly and reasonably relate in scale and kind to the proposed development;
and
- be reasonable in all other respects.

In other words, the section 36 application must be assessed on its planning merits; members should NOT take into account the offer of community benefit in coming to a view on this consultation.

Annex III Representations and Consultations.

In considering the response to be made to the Scottish Government, members should be aware of the extent and content of consultation responses and public representation. Key consultees include two adjoining local authorities and the Pentland Hills Regional Park, who oppose the scheme, and Scottish Natural Heritage (SNH) which has serious concerns about the proposal, all on landscape grounds. There are air safety objections from NATS En Route and a local flying club.

The following is a brief summary of representations received by the Scottish Government on the proposal. Copies of the representations received from consultees are available from Committee Services at the Civic Centre, or from the case officer at County Buildings.

The City of Edinburgh Council objects because of the effect on the landscape, recreational and visual impact on the Pentland Hills Regional Park. The council has objected to the development on the grounds of the detrimental impact on the integrity of the landscape, visual and recreational resource of the Pentland Hills Regional Park and its corresponding AGLV,

To South Lanarkshire Council (SLC), the value of where the Pentland Hills lies is its recognition as a single landscape unit, the importance of which is underscored by its proximity to the densely populated areas of Central Scotland. In recognising the importance in planning terms of the Pentland Hills as a single landscape unit, SLC argues that the proposal will have significant adverse effects on the Pentland Hills Regional Park, and the overall massif. The site is unsuitable for windfarm development and breaches local landscape protection policies.

The Pentland Hills Regional Park Authority objects because of the negative impact on the park's aims and, in particular, the landscape and enjoyment of the designated area. The Authority, in its letter of objection, concludes that the development would have a detrimental effect on the experience of visitors to the hills, both within and beyond the Regional Park. The proposal is, therefore, seen by the park authority to "fundamentally conflict" with the aims of the regional park and its landscape protection objective. Such adverse effects are not, and cannot be, offset by offers of community benefit.

Neil Findlay, MSP, objects because of the cumulative effect the development would have with other windfarms in the vicinity, and the adverse effect on an area of wilderness and rugged beauty in the central belt; that it would have an adverse effect on tourism; that there requires to be a national spatial plan, and it is contrary to planning policy.

Angela Constance, MSP, has also submitted a letter of objection to the Scottish Government.

West Calder and Harburn Community Council object to the proposal, it being contrary to the development plan, it would be to the detriment of the Pentland Hills Regional Park; and there is a conflict between the developer's case and that of external agencies.

Kirknewton Community Council commissioned a consultation with the community and concludes that the majority of respondents are in favour of the application. Members should note, however, that the community council's specific reference to an annual community benefit of some £82,000 may well have influenced the outcome of their consultation and the response not to object to the proposal. For the reasons set out elsewhere in this report community benefit cannot be taken into account in this determination of the proposal.

Scottish Natural Heritage expresses serious concerns because of the impact on the landscape and visual qualities of the Pentland Hills.

The Scottish Rights of Way Society objects due to the adverse effect on the amenity of countryside footpath users and the recreational value of the Pentland Hills.

Royal Society for the Protection of Birds (RSPB) has "serious concerns" on the impact on bird species and habitats.

Scottish Power, Scottish Gas Networks and BT do not object.

Historic Scotland does not object.

SEPA does not object, subject to the imposition of conditions.

Forestry Commission Scotland is content that the proposal will not have an adverse impact on the existing commercial forestry around the site.

Transport Scotland does not object in terms of the consequences for the trunk road network.

The Scottish Government freshwater laboratory does not object.

Kirknewton Flying Club is concerned about the effect of the development on air safety.

Airport operator BAA does not object.

National Air Traffic Services En Route objects because the proposal conflicts with en route air traffic safeguarding criteria and hence air safety.

The Ministry of Defence, and the Civil Aviation Authority do not object to the proposal on air safety grounds.

West Lothian Council's Transportation Service would wish to see conditions imposed, but does not object.

The owner of Crosswoodhill Farm Holiday cottages has copied her objection directly to the council, setting out the adverse effects that the proposal would have on her tourism business.

The Scottish Government has received five representations in support of the proposal from third parties, including from two based in West Lothian. A further 84 representations opposing the development have been received by the Scottish Government, all but 10 of which are from locally based addresses in West Lothian or South Lanarkshire.

Annex IV A summary of the landscape and visual case made by Scottish Natural Heritage

In summary, and as described by SNH, if the development was to proceed:

- i) It would introduce a new and dominant and uncharacteristic development onto the simple open north-western slopes of the Pentland Hills and substantially alter the character of the adjoining Regional Park, and the wider hills beyond;
- ii) It would introduce a windfarm into an area that is currently wind farm free;
- iii) It would significantly affect the views and visual amenity of those who enjoy the natural and scenic beauty, relative remoteness and tranquillity of the Pentland Hills;
- iv) It would dominate and detract from the distinctive and valued skyline of the Pentland Hills, which currently forms an uncluttered backdrop to (and setting for) Edinburgh, West Lothian and South Lanarkshire;
- v) It would be a dominant new focal point and detract from the dramatic, open views to the Pentland Hills from the well used 'A70 'Lang Whang' between Edinburgh and Lanark;
- vi) It would diminish the perceived benefits of the hills for those residents of West Lothian, South Lanarkshire and wider users who value the Hills as a remote and tranquil landscape and which provides a balance and respite from their urban lifestyles;
- vii) The proposed scheme is three to four times the scale of existing windfarms at Pates Hill and Muirhall and breaks the patterns where such developments otherwise become smaller as they approach more sensitive landscapes;
- viii) The A70 is a clear and strong boundary between the existing forest and windfarm mosaic to the north, and the undeveloped part to the south, a position recently underscored by Scottish Ministers' decision to refuse the planning permission for the Harrows Law scheme in South Lanarkshire
- ix) The scheme will have significant adverse effects on views from the South Lanarkshire settlements of Tarbrax, Woolfords, Polkelly and Auchengray, and from the fishery at Crosswoodhill; and
- x) It would have a moderate to moderate / to major impact on the Harburn House designed landscape which the applicant considers not to be significant.

Annex V Other Material Planning Considerations

The applicant has submitted an extensive and detailed assessment of associated planning considerations and their environmental effects. Nevertheless, against this background, and central to the determination of this application, are its landscape and visual effects and the impact it would have on the Pentland Hills Regional Park.

Matters such as the development's effects on roads and traffic, ecology, ornithology, soil and water, air and climate are either acceptable or are able to be addressed by conditions. Members should refer to the applicant's non-technical summary, or the full environmental statement and submissions for a detailed assessment of these matters. There is unlikely to be any grounds to oppose the application on these non-landscape issues.

The applicant has also submitted proposals to enhance outdoor recreation and access on land within the site following commissioning of the windfarm. Whilst laudable in their own right, such proposals do not offset the very significant adverse landscape and visual impacts that the development would have, as set out elsewhere in this report.



**Planning Services
Development Management**

Electricity Act 1989

Proposed construction of a windfarm at Fauch Hill, Colzium, West Calder

Reasons for objection by West Lothian Council

- 1) The proposal is contrary to the development plan, the Edinburgh and the Lothians Structure Plan 2015 Policy ENV 1D, insofar as the landscape and visual impact of the proposal would compromise the objectives and overall integrity of the Pentland Hills Regional Park and the Pentland Hills Area of Great Landscape Value and that the social and economic benefits to be gained from the proposed development do not outweigh the adverse environmental impacts nor the adverse effects on the enjoyment of the Regional Park.
- 2) The proposal is contrary to the development plan, the Edinburgh and Lothians Structure Plan 2015 Policy ENV 6, insofar as the development of renewable energy resources at the site cannot be achieved in an environmentally acceptable manner.
- 3) The proposal is contrary to the development plan, the West Lothian Local Plan Policy ENV 19, insofar as the development would have significant adverse effects on the landscape character and appearance of the Pentland Hills Area of Great Landscape value and in particular the setting of Harperrig Reservoir, an area identified in the Plan as being particularly vulnerable to intrusions within the landscape setting of the AGLV.
- 4) The proposal is contrary to the development plan, the West Lothian Local Plan Policy NWR 20, in so far as the scheme is not environmentally acceptable and the criteria set out in the local plan cannot be met.
- 5) The proposal is contrary to the development plan, the West Lothian Local Plan Policy NWR 22, insofar as it would affect the character, visual integrity, and recreational qualities of the Pentland Hills Regional Park and the wider area of the Pentland Hills in West Lothian. The applicant has not conclusively demonstrated that the integrity of the landscape and outdoor recreational facilities are not adversely affected.
- 6) The proposal is contrary to the development plan, the West Lothian Local Plan Policy NWR 23, insofar as the proposal would undermine the landscape and visual qualities of the Pentland Hills Area of Great Landscape Value.
- 7) The proposal is contrary to Scottish Planning Policy, insofar as the site is within the largest area of 'wild land' in the Scottish central belt as defined by Scottish Natural Heritage and such a sensitive landscape has no capacity to accept the scale of on-shore wind renewable energy that is proposed. The sensitivity of the site and the nature and scale of the proposed development is such that the development should not be permitted in order to safeguard the character and quality of the landscape and the setting for outdoor recreation and tourism locally.

- 8) The proposal is contrary to Scottish Planning Policy, insofar as it could give rise to unacceptable cumulative effects of windfarms on the northern fringes of the Pentland Hills including those operational at Muirhall, South Lanarkshire and Pates Hill, West Lothian; and those proposed at Harburnhead, West Lothian; and Pearie Law, West Lothian.
- 9) The proposal is contrary to Scottish Planning Policy, insofar as it does not reflect the scale and character of the landscape and as its environmental and cumulative impacts cannot be satisfactorily addressed, as required by paragraph 187 of SPP.
- 10) The amount of renewable energy generated by the development of a windfarm at Fauch Hill, whilst in accordance with the Scottish Government's climate change targets, does not satisfy a range planning policy criteria given in particular the extreme sensitivity of the site and its setting and the highly intrusive and negative effects that the development would have on the wild, empty and iconic landscape of the Pentland Hills.