Fred. Olsen Renewables

natural power

Natural Power acting as lead consultants on behalf of Fred. Olsen Renewables.

Planning, Design and Access Statement

Crystal Rig Wind Farm (Phase IV)

May 2018

1167495 A

Fred. Olsen Renewables Ltd.

Document history

Author	Gavin Shirley	19/04/2018
Approved	Euan Hutchison	03/05/2018

Client Details	
Contact	Gareth Swales
Client Name	Crystal Rig IV Limited, c/o Fred. Olsen Renewables Ltd.
Address	c/o Fred. Olsen Renewables, 2nd Floor 64-65 Vincent Square, London, SW1P 2NU, United Kingdom

Issue	Date	Revision Details
A	31/05/2018	First issue

Local Office:

The Green House,
Forrest Estate Dalry,
Castle Douglas,
DG7 3XS
SCOTLAND,
UK
Tel: +44 (0) 1644 430 008

Registered Office:

The Natural Power Consultants Limited
The Green House
Forrest Estate, Dalry,
Castle Douglas, Kirkcudbrightshire,
DG7 3XS

Reg No: SC177881
VAT No: GB 243 6926 48

Contents

1. Introduction 1
2. Environmental Impact Assessment Report 1
3. Overview of the Proposed Development 2
4. The Applicant 3
5. Consultants 3
6. Design and Access Statement 4
7. Legal and Policy Framework 5
   7.1. The Electricity Act 1989 5
   7.2. The Electricity Works (Environmental Impact Assessment) (Scotland) Amendment Regulations 2017 5
   7.3. The Town and Country Planning (Scotland) Act 1997 as amended 5
   7.4. Scottish Climate Change Legislation and Energy Policy 6
   7.5. Scottish Planning Policy and Advice 8
   7.6. Summary 13
8. Development Plan 13
   8.2. SESplan 13
   8.3. Scottish Borders Local Development Plan (2016) 14
   8.4. East Lothian Local Plan (2008) 22
   8.5. Development Plan Conclusions 23
9. Existing Guidance 23
   9.1. Scottish Borders Council Supplementary Planning Guidance - Wind Energy May 2011 23
   9.2. Scottish Borders Council SPG - Landscape Capacity and Cumulative Impact (2013) 24
   9.3. East Lothian Council Guidance for Wind Farms of 12 MW and over (Dec 2013) 24
10. Emerging Plans and Guidance 25
   10.1. SESplan 25
   10.2. Scottish Borders Supplementary Guidance on Renewable Energy 25
   10.3. East Lothian Local Development Plan 26
11. Summary and Conclusions 26

1. Introduction

1.1.1. Natural Power Consultants Limited (Natural Power) has, on behalf of the applicant Crystal Rig IV Limited, submitted an application under Section 36 of the Electricity Act 1989 to seek consent from the Scottish Government for the development of Crystal Rig Wind Farm (Phase IV). The application also seeks a direction under Section 57(2) of the Town and Country Planning (Scotland) Act 1997 that planning permission for the development be deemed to be granted.

1.1.2. This Planning, Design & Access Statement has been prepared by Natural Power to accompany the Section 36 application. The Planning, Design & Access Statement (PDAS) identifies:

- The procedures used by the applicant to find a suitable location and design for the Proposed Development.
- Details of the Proposed Development.
- The methods proposed by the applicant to ensure that any residual environmental effects are avoided/minimised/mitigated.
- Consideration of the Proposed Development against the relevant policies of the Scottish Government
- Consideration of the Proposed Development against the Local Development Plan (LDP) and other material planning considerations.

1.1.3. It is proposed that, as far as is practical, for site construction, the planning conditions that applied to the Crystal Rig Wind Farm (Phase III) consent should also be applied to the Proposed Development. This will ensure that there is, in general, duplicate sets of similar conditions applying to the Crystal Rig Wind Farms as a whole with the new set recognising the use of shared infrastructure for the lifetime of the Proposed Development. The existing Crystal Rig Wind Farms are considered by the Applicant to be very successful in their operation and have been delivered and operated within the various requirements of the existing consents.

1.1.4. Throughout the Planning, Design & Access Statement reference is made to other documents including an Environmental Impact Assessment Report (EIAR) which has been produced following an Environmental Impact Assessment (EIA) of the potential effects associated with the Proposed Development. These and other matters are detailed in the following sections of this Planning, Design & Access Statement.

2. Environmental Impact Assessment Report

2.1.1. The EIAR has been prepared in line with the Electricity Works (Environmental Impact Assessment) (Scotland) Amendment Regulations 2017.

2.1.2. The EIAR reports the findings made in the EIA of the Proposed Development. The scope of the EIA was the subject of a formal scoping opinion from the Scottish Government which included input from the relevant Local Planning Authorities (LPA) which are Scottish Borders Council (SBC) and East Lothian Council (ELC), and from the other consultees including Scottish Environment Protection Agency (SEPA), Scottish Natural Heritage (SNH), and Historic Environment Scotland (HES).

2.1.3. During the EIA process, site visits and desk top assessments, in line with the relevant guidance, were carried out to ascertain the potential impacts and mitigation measures to be made. A review of planning and other relevant policy was also made to inform the assessment process and ensure the Proposed Development was in line with local, regional and national policy.

3. Overview of the Proposed Development

3.1.1. The Proposed Development is located in the Lammermuir Hills, adjacent to the southern side of the existing Crystal Rig Wind Farms. All of the proposed turbines are situated within the Scottish Borders Council jurisdiction and access to the Proposed Development will utilise the existing access through the north, which is in East Lothian Council's area. For clarity regarding areas of infrastructure associated with the Proposed Development see Table 3.1.

Table 3.1: Proposed Infrastructure Locations

Scottish Borders	East Lothian
Eleven wind turbines including foundations	New underground electricity cables
External transformers	Extend operating period of anemometry masts
Crane pads	Extend operating period of Metering Building / Substation
New site tracks	Extend operating period of access tracks
Underground electricity cables	Potential enabling works along public roads
Up to six borrow pits	
Forestry Felling	
Signage	
Temporary construction and storage compounds	

3.1.2. The Applicant is seeking consent for:

- Eleven wind turbines including foundations;
  - Four at 149.9 m to tip height
  - Three at 174.5 m to tip height;
  - Four at 200 m to tip height.
- External transformers;
- Crane pads;
- Site tracks;
- Underground electricity cables;
- Up to six borrow pits;
- Forestry Felling;
- Signage;
- Temporary construction and storage compounds; and
- Ancillary development.

3.1.3. The Proposed Development will make use of the substation (housing switchgear and metering) and control building that is already being used at the operational Crystal Rig Wind Farms. The Applicant already has an agreement with National Grid for utilising available grid capacity in the local transmission network with connection to the existing 400 kV substation onsite. There will be no need for a new anemometry mast and as far as possible the Proposed Development will utilise existing tracks, building out new tracks from these to minimise environmental impacts.

3.1.4. The existing control building at Friardykes has planning permission separate from the Crystal Rig Wind Farms (SBC ref: 08/00330/FUL) and therefore is not time limited. The use of existing infrastructure such as access tracks, anemometry masts and the Metering Building / Substation for the purpose of the Proposed Development will be extended to coincide with the intended life of the Proposed Development at which point it can be decommissioned and the site restored in accordance with requirements at that time. Likewise, areas of land next to the public road (between the A1 junction at Innerwick and the entrance to Crystal Rig Wind Farms) which are under the Applicant's control may require temporary works to facilitate transport of the Proposed Development's turbines and reinstated thereafter in a similar manner to related works on the other Crystal Rig Wind Farms. Any areas required are included in the application boundary and the details of any works can be agreed with the roads authority and/or planning authority as required pre-construction through similarly worded conditions attached to consents of the now operational Crystal Rig Wind Farms.

4. The Applicant

4.1.1. The applicant for this project is Crystal Rig IV Limited, a company set up for the project by Fred. Olsen Renewables Ltd. (FORL). FORL has been developing and operating wind farms since the mid 1990's and is fully committed to the Scottish and UK renewable energy generation market, with an operational portfolio generating capacity of 529.7 MW in Scotland across five sites. FORL developed, constructed and currently operates all of the current phases of Crystal Rig Wind Farm.

5. Consultants

5.1.1. Natural Power is the lead consultancy and has been providing expertise to the renewable energy industry since the company was formed in 1995 and is one of the UK's leading renewable energy and infrastructure consultants. As well as development and EIA services, Natural Power also provide expert advice and due diligence consultancy, site construction management, site operation and maintenance.

5.1.2. Alongside the Applicant, Natural Power has been providing a range of planning, construction and operational services on the operational Crystal Rig Wind Farms. The Proposed Development has also been informed through work provided by Hayes McKenzie Partnership Ltd and Scottish registered companies Tom Finnie Photography and CFA Archaeology Ltd (contact details provided in Chapter 1 in Volume 1 of the EIAR).

6. Design and Access Statement

6.1.1. Whilst acknowledging that the Proposed Development is submitted under Section 36 of the Electricity Act 1989, as a measure of good practice, the applicant has provided a detailed written statement about the design principles and concepts that were applied to the Proposed Development before submission in Chapter 4 of the EIAR. Consideration of access is normally required by the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 and although the specific details sought by these Regulations are of limited relevance to the Proposed Development, access issues have also been addressed in the EIAR, in particular Chapters 5: Project Description and Chapter 13: Traffic and Transport. It is therefore considered that this Statement in combination with the EIAR fulfils the usual requirement for a statement on design and access.

6.1.2. The site has been selected through a pro-active prospecting exercise and chosen for its positive balance between high wind yield and low environmental effects. It is located in an 'Area with Potential' for wind energy development as identified in SBC's Draft Renewable Energy Supplementary Guidance (2016). The layout of the site itself has also followed strict criteria to avoid sensitive features and avoid causing direct effects as much as possible. The design strategy has followed the principles within Planning Advice Note 68 – Design Statements.

6.1.3. The relevant bodies were consulted during the initial EIA process, feedback from which was fed directly in to the iterative design process. This included official Scoping and the evolution of the site layout is described in detail in Chapter 4 of the EIAR. Public events were also held and full details of the consultation process are provided in the Pre-Application Consultation (PAC) Report which accompanies the application.

6.1.4. Consideration of other wind farm developments, including the operational Crystal Rig Wind Farms and Aikengall Wind Farms were also taken in to account in the layout design. The Proposed Development's location and site design has limited the potential environmental effects. These are assessed throughout the EIAR and found to be acceptable.

6.1.5. The Proposed Development will utilise existing infrastructure in operation at the Crystal Rig Wind Farms including the metering building/substation, access tracks and anemometer masts, thus enforcing the Proposed Development's credentials as a sustainable development.

6.1.6. From an access point of view, Chapter 14 of the EIAR recognises there are a number of PRoW and Core Paths within Crystal Rig Wind Farms and in the vicinity of the Proposed Development Area. Exclusion zones were included at the design stage on either side of the PRoW to ensure that the presence of the turbines would not interfere directly with the use of these. Whilst the Proposed Development Area is accessible under the Land Reform (Scotland) Act 2003, public use of the PRoW and new access tracks on site would be managed during the construction phase for health and safety reasons.

6.1.7. In conclusion, it is considered that the Proposed Development voluntarily meets the relevant Design and Access requirements for a major development under the Planning Acts and Regulations.

7. Legal and Policy Framework

7.1. The Electricity Act 1989

7.1.1. As a result of the Proposed Development being an extension to the existing Crystal Rig Wind Farms which in generate in excess of 50 MW of electricity, determination of the application will be made under the Electricity Act 1989. The application has been submitted under Section 36 of the Act.

7.1.2. Pursuant to schedule 9 of the Act, regard is given to the desirability of preserving natural beauty, conserving flora and fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historical or archaeological interest. The Scottish Government will consider the extent to which the applicant has done, within reason, what it reasonably can to mitigate any effect the proposal might have on these features. There is also a requirement when exercising relevant functions related to the generation or supply of electricity to seek to avoid, so far as reasonably practicable, causing injury to fisheries or fish stocks.

7.1.3. These matters have been addressed as appropriate in the EIAR and assessments of these features have been undertaken and are described along with a summary of the proposed mitigation measures in the relevant chapters of the EIAR to mitigate potential environmental effects upon these assets. It is therefore considered that the Proposed Development is in accordance with the relevant requirements of this Act.

7.2. The Electricity Works (Environmental Impact Assessment) (Scotland) Amendment Regulations 2017

7.2.1. Regulation 3 states that a Section 36 application for consent which requires an EIA shall not be granted unless the requirements of the regulations have been satisfied. The applicant must submit an EIAR and adhere to the proper publicity procedures. In determining the application, the Secretary of State must take the findings of the EIAR and other environmental information into account.

7.2.2. Relevant maps and plans of the Proposed Development have also been included within the EIAR. The relevant potential significant effects created by the Proposed Development have been assessed and presented in the EIAR. The main alternatives have also been considered in chapter 4 of the EIAR. A Non-Technical Summary accompanies the EIAR. It is therefore considered that the requirements of the Regulations have been duly followed.

7.3. The Town and Country Planning (Scotland) Act 1997 as amended

7.3.1. With the application submitted under Section 36 of the Electricity Act 1989, the applicant also seeks a direction under Section 57(2) of the Town and Country Planning (Scotland) Act 1997, as amended by the Planning etc. (Scotland) Act 2006, that planning permission for the Proposed Development be deemed to be granted.

7.3.2. In this case, the Development Plan is a material consideration to the determination and Scottish Borders Council and East Lothian Council are statutory consultees for the application. The relevant Development Plans for the Proposed Development are the SESplan, Scottish Borders Local Development Plan (LDP) (2016) and the East Lothian Local

Plan (2008). These along with other relevant guidance and emerging policies are considered in section 8 of this statement.

7.4. Scottish Climate Change Legislation and Energy Policy

7.4.1. The Scottish Government is a devolved administration and is responsible for climate change and energy issues in Scotland. In line with the UK's agreement with the Kyoto Protocol and the targets set out in the European Directive 2009/28/EC, the Scottish Government has brought in to force:

- The Climate Change (Scotland) Act 2009
- The Scottish Energy Strategy 2017
- Scottish Onshore Wind Energy Policy Statement 2017

7.4.2. These documents are the main drivers for pushing Scotland towards a low carbon economy and meeting international targets on climate change and renewable energy generation.

7.4.3. The Scottish Energy Strategy, published in December 2017, sets targets for the energy system for 2030, building on those presented by the 2020 Route Map for Renewable Energy in Scotland and the Renewables Action plan including the aim to meet 30 % of Scotland's whole energy demand from renewables by 2020.

7.4.4. The document outlines a vision to drive Scottish energy production for 2050 and stressed the importance of renewable energy to achieving a low carbon economy in Scotland. The importance of renewable energy to Scotland's economy is also recognised.

7.4.5. Amid the growing concern globally of climate change and the risks it poses to habitats and civilisations, the Paris Agreement1 symbolises the latest international effort to limit its effects. The Paris Agreement was agreed upon in Paris, December 2015, between 195 countries. Nations including the UK signed the Agreement in April 2016 to make the global plan to limit global warming below 2°C legally binding.

7.4.6. The Paris Agreement will take effect from 2020. In addition to the target of keeping global warming below 2°C of pre-industrial levels, it recognises the role of non-party stakeholders including local authorities to address climate change by scaling up efforts and support actions to reduce emissions and build resilience and decrease vulnerability to the adverse effects of climate change. It is envisaged for Scotland to be a leading force in renewables and that such policies will create investment and job opportunities in the 'green' business sector and as a nation become self-sufficient in energy use.

7.4.7. At time of writing, the UK is still subject to the requirement of the European Union's (EU) Directive 2009/28/EC. 2003. This Directive establishes a framework for the promotion of energy from renewable sources setting mandatory national targets for member states. These national targets are such that the European Community as a whole will meet its overall target of at least 20 % of energy consumption from renewable sources by 2020. Against this EU target, the Directive establishes a requirement for the UK to achieve an equivalent target of 15 % by 2020.

1 Paris Agreement: http://ec.europa.eu/clima/policies/international/negotiations/paris/index_en.htm (last accessed 06/12/2016)

The Climate Change (Scotland) Act 2009

7.4.8. The Climate Change (Scotland) Act 2009 is seen as a key commitment of the Scottish Government which aims to establish a framework and creates mandatory climate change targets to drive greater efforts at reducing greenhouse gas emissions in Scotland.

7.4.9. Section 44 of the Climate Change (Scotland) Act 2009 placed a duty on every public body to act:

- In the best way calculated to contribute to the delivery of the emissions targets in the Act.
- In the best way calculated to help deliver the Scottish Government's climate change adaptation programme.
- In a way that it considers is most sustainable.

7.4.10. Owing to its renewable electricity production, economic and social effect, as noted in the relevant chapters of the EIAR and the insignificant effect on stored carbon; the Proposed Development will make a notable contribution to achieving the targets set by the Act and should be given due cognisance by the relevant public authorities when exercising their duties under this legislation.

Scottish Energy Strategy 2017

7.4.11. The Scottish Energy Strategy was published in December 2017 and outlines a vision for the future of energy production in Scotland for 2050. The vision is centred on achieving a strong, low carbon economy in which renewable energy is recognised to play an important part.

7.4.12. The Scottish Energy Strategy states targets to produce 50 % of Scotland's energy demand for heat, transport and electricity as well as to increase the productivity of energy use across the Scottish economy by 30 %.

7.4.13. An important driver of this strategy is the recognition of the requirements of the renewable energy industry to improve efficiency by utilising taller turbines with larger rotor diameters to operate in the market following the removal of government subsidy through Renewable Obligation Certificates and subsequently Contracts for Difference. Enabling these requirements is essential in order to meet the ambitious, but achievable, targets set out in the Scottish Energy Strategy.

7.4.14. The strategy recognises that Scotland's energy system is changing and there has been a sharp rise in harnessing the country's renewable resources as a means of energy production. It is also recognised that renewables are a key driver in Scotland's economy.

7.4.15. The Proposed Development has been designed to operate in the current and emerging market conditions and as such will contribute positively towards reaching the targets set out in the Scottish Energy Strategy and towards the estimated 17 GW of installed renewable capacity required by 2030 in order to reach these targets. The Proposed Development will further support and sustain the jobs and infrastructure that have arisen from the Applicant's investment at the Crystal Rig Wind Farms.

Scottish Onshore Wind Energy Policy Statement 2017

7.4.16. The Scottish Onshore Wind Energy Policy Statement recognises the wind energy sector is a big contributor to the Scottish economy. Scotland has 46 % of all UK employment in the sector and 57 % of all UK turnover in the sector. The Policy Statement furthermore

recognises that the future of the market for onshore wind is uncertain following the removal of subsidies in 2015. However, it is believed this can be facilitated with the right regulatory framework and Government support.

7.4.17. The Scottish Government states it will support new and repowered wind farms and recognises that if wind farms are to continue to contribute to Government targets without subsidy this inevitably means the use of larger turbines, where appropriately located. Such wind turbines can capture more of the available wind resource and improve the efficiency of wind turbine developments. With the necessary support for such large turbine projects by Scottish Ministers, statutory and non-statutory consultees the ambitious 2030 energy targets can be met.

7.4.18. The Proposed Development provides an example of how the requirement for investment in newer and more efficient wind energy projects can be achieved in an environmentally acceptable manner and should be supported for implementing this Scottish Government Policy Statement.

7.5. Scottish Planning Policy and Advice

7.5.1. National planning policy and advice in Scotland is practised through the following hierarchy:

- National Planning Framework 3 (NPF3) provides a spatial vision for the future growth of Scotland. It provides the strategic policy context for decisions and actions by the Scottish Government and its agencies.
- Scottish Planning Policy (SPP) provides a succinct statement of national planning policy.
- Circulars contain guidance on policy implementation through legislative or procedural change.
- Planning Advice Notes (PAN) provide information and advice relevant to particular policies.

National Planning Framework 3 (NPF3)

7.5.2. Scotland's third National Planning Framework was laid in the Scottish Parliament on 23 June 2014.

7.5.3. NPF3 is the spatial expression of the Scottish Government's Economic Strategy - with a focus on supporting sustainable economic growth and the transition to a low carbon economy. NPF3 sets out the ambition for Scotland as a whole, and highlights the distinctive opportunities for sustainable growth in our cities and towns, our rural areas and our coast and islands.

7.5.4. NPF3 builds on the key themes of NPF2 particularly in terms of promoting greater use of renewable energy, supporting further deployment of onshore wind farms and moving Scotland further towards becoming a "Low Carbon Place".

7.5.5. Although not a national development itself, the Proposed Development adheres to the vision set by NPF3. The Proposed Development will contribute to the reduction of greenhouse gases by producing electricity from a renewable source and reducing the need for fuel from finite resources. It will increase the percentage of electricity supplied by renewable sources and move Scotland closer towards having a low carbon economy and reaching energy supply targets. The Proposed Development is therefore supported by NPF3.

Scottish Planning Policy (SPP)

7.5.6. Published in June 2014 the current SPP provides a statement of Scottish Government Policy on nationally important land use. As well as providing a context for different types of development in Scotland it also sets out policy on how the planning system should operate and how planning authorities should prepare development plans and supplementary guidance and determine planning applications.

7.5.7. In terms of its Core Principles for the planning system, the SPP makes it clear that the system should be plan led, to the point where decision making is transparent and predictable, that constraints on development are necessary and proportionate, that all interests are engaged as early as possible all seeking to ensure that there is a clear focus on quality outcomes.

7.5.8. The Proposed Development has considered the relevant constraints and opportunities presented by the site, had due regard to the development plan for the area, included consultation with all stakeholders including the planning authority, consultees and local communities from an early stage throughout the design and assessment process and has therefore been developed in accordance with the Core Principles of the SPP.

A Low Carbon Plan

7.5.9. SPP states in Section 152 that:

"NPF3 is clear that planning must facilitate the transition to a low carbon economy, and help to deliver the aims of the Scottish Government's Report on Proposals and Policies2. Our spatial strategy facilitates the development of generation technologies that will help to reduce greenhouse gas emissions from the energy sector. Scotland has significant renewable energy resources, both onshore and offshore. Spatial priorities range from extending heat networks in our cities and towns to realising the potential for renewable energy generation in our coastal and island areas".

7.5.10. SPP states in Section 154 that:

"The planning system should:

- *support the transformational change to a low carbon economy, consistent with national objectives and targets, including deriving:*

– *30% of overall energy demand from renewable sources by 2020;*

– *11% of heat demand from renewable sources by 2020; and*

– *the equivalent of 100% of electricity demand from renewable sources by 2020;*

- *support the development of a diverse range of electricity generation from renewable energy technologies - including the expansion of renewable energy generation capacity - and the development of heat networks;*
- *guide development to appropriate locations and advise on the issues that will be taken into account when specific proposals are being assessed;*
- *help to reduce emissions and energy use in new buildings and from new infrastructure by enabling development at appropriate locations that contributes to:*

[2]Available online from: http://www.scotland.gov.uk/Topics/Environment/climatechange/scotlands-action/lowcarbon/meetingthetargets - (last accessed 03/10/2016)

- *Energy efficiency;*
- *Heat recovery;*
- *Efficient energy supply and storage;*
- *Electricity and heat from renewable sources; and*
- *Electricity and heat from non-renewable sources where greenhouse gas emissions can be significantly reduced".*

7.5.11. The Proposed Development will increase the amount of renewable energy generation in Scotland, thus helping to support the transformational change to a low carbon economy consistent with national objectives and targets. The Proposed Development is located in an area where the depth of peat, associated with carbon rich soils is very low. As such, potential carbon dioxide emissions will be limited. In combination with the large renewable electricity generating capacity, the Proposed Development is consistent with the aims of SPP for transitioning to a low carbon economy thus helping to tackle climate change and increase renewable energy supply.

Onshore Wind

7.5.12. SPP has a section dedicated to onshore wind. Paragraph 161 states that:

"Planning authorities should set out in the development plan a spatial framework identifying those areas that are likely to be most appropriate for onshore wind farms as a guide for developers and communities… Development plans should indicate the minimum scale of onshore wind development that their spatial framework is intended to apply to. Development plans should also set out the criteria that will be considered in deciding all applications for wind farms of different scales - including extensions and re-powering - taking account of the considerations set out at paragraph 169"

7.5.13. Section 169 states "Proposals for energy infrastructure developments should always take account of spatial frameworks for wind farms and heat maps where these are relevant. Considerations will vary relative to the scale of the proposal and area characteristics but are likely to include:

- *Impacts on communities and individual dwellings, including visual impact, residential amenity, noise and shadow flicker*
- *landscape and visual impacts, including effects on wild land;*
- *effects on the natural heritage, including birds;*
- *impacts on carbon rich soils, using the carbon calculator;*
- *public access, including impact on long distance walking and cycling routes and scenic routes identified in the NPF;*
- *impacts on the historic environment, including scheduled monuments, listed buildings and their settings;*
- *impacts on tourism and recreation;*
- *impacts on aviation and defence interests and seismological recording;*
- *impacts on telecommunications and broadcasting installations, particularly ensuring that transmission links are not compromised;*
- *impacts on road traffic;*
- *impacts on adjacent trunk roads;*

- *effects on hydrology, the water environment and flood risk;*
- *the need for conditions relating to the decommissioning of developments, including ancillary infrastructure, and site restoration".*

7.5.14. All such constraints have been taken in to account with regards to the Proposed Development and have been assessed during the EIA process. The results of the EIA are presented in further detail in the relevant chapters of the EIAR and the factors above are assessed in section 7 of this PDAS. The Proposed Development, as an extension to Crystal Rig Wind Farms is considered an appropriate development in the proposed location in the context of SBC's spatial strategy.

7.5.15. In addition, with regards to the last bullet the Proposed Development has a high level strategy for decommissioning which is presented in Chapter 5 of the EIAR and is considered in the different assessments undertaken and presented in the EIAR. A detailed decommissioning strategy would be developed in agreement with SBC towards the end of the operational period of the Proposed Development.

7.5.16. The Proposed Development is therefore considered to be in accordance with the most directly relevant parts of the SPP.

Promoting Rural Development

7.5.17. The Proposed Development will be situated in a relatively remote upland rural area adjacent to an existing wind farm in Scottish Borders.

7.5.18. The overall approach advocated in the new SPP is that of a proactive stance to development in rural areas. Paragraph 75 of the SPP states that "*the planning system should*:

- *In all rural and island areas promote a pattern of development that is appropriate to the character of the particular rural area and the challenges it faces"; and*
- *"Encourage rural development that supports prosperous and sustainable communities and businesses whilst protecting and enhancing environmental quality".*

7.5.19. Chapter 15 of the EIAR reports that the Proposed Development is expected to have **beneficial effects** at the local level during the construction and operation phases respectively as well as beneficial effects at national level to a lesser degree.

7.5.20. Job creation is expected to trickle down to provide additional spending within this relatively remote rural area thus helping to sustain the local economy over the construction period and operational lifetime of the Proposed Development. The Proposed Development is therefore considered to be in line with the SPP's vision for rural development.

Valuing the Historic Environment

7.5.21. The SPP supports the recognition of the contribution made by cultural heritage to our economy, cultural identity and quality of life and describes the historic environment in paragraph 136 as a "key cultural and economic asset and a source of inspiration that should be seen as integral to creating successful places". As per paragraph 137, the planning system should:

- *promote the care and protection of the designated and non-designated historic environment (including individual assets, related settings and the wider cultural*

landscape) and its contribution to sense of place, cultural identity, social well-being, economic growth, civic participation and lifelong learning; and

- *enable positive change in the historic environment which is informed by a clear understanding of the importance of the heritage assets affected and ensure their future use. Change should be sensitively managed to avoid or minimise adverse impacts on the fabric and setting of the asset, and ensure that its special characteristics are protected, conserved or enhanced.*

7.5.22. Chapter 10 of the EIAR confirms that there are no direct or indirect significant effects associated with the construction, operation and decommissioning of the Proposed Development predicted in relation to any nationally important assets.

A Successful, Sustainable Place

7.5.23. The SPP recognises the importance of supporting sustainable economic growth and regeneration, setting out the role that the Scottish Government expects the planning system to play in the sustainable economic growth of Scotland.

7.5.24. In addition to the creation of jobs and other contracting and investment opportunities, since the existing Crystal Rig Wind Farms became operational in 2006, the developer, FORL, has undertaken ongoing site surveys to monitor the ecological conditions, to manage and mitigate when required and to improve the wider understanding of the potential environmental effects on wind farms such as Crystal Rig. Environmental monitoring will continue should the Proposed Development receive consent.

Planning Advice Notes (PAN)

Specific Advice Sheet: Onshore Wind Turbines

7.5.25. Specific Advice Sheet: Onshore Wind Turbines has replaced Planning Advice Note (PAN) 45 - Renewable Energy and is a source of specific advice for the development of onshore wind farms. The document provides specific advice to inform both development plans and developers involved in onshore wind projects. It is updated online and identifies key issues to be considered within the design and development process.

Other PAN

7.5.26. In addition to the Specific Advice Sheet: Onshore Wind Turbines is a range of topic and procedural Planning Advice Notes which have been considered in the design and assessment of the Proposed Development, including:

- PAN 1/2013 - Environmental Impact Assessment and Annex A.
- PAN 51 – Planning, Environmental Protection and Regulation.
- PAN 60 – Planning for Natural Heritage.
- PAN 68 – Design Statements.
- PAN 73 – Rural Diversification.
- PAN 75 – Planning for Transport.
- PAN 3/2010 – Community Engagement.
- PAN 1/2011 – Planning and Noise.
- PAN 2/2011 – Planning and Archaeology.

7.5.27. The Proposed Development has progressed with careful consideration of the advice contained within the Specific Advice Sheet: Onshore Wind Turbines and other PAN. The design and assessment of the Proposed Development has evolved to comply with the advice supplied and has been clearly addressed throughout the EIAR. The Proposed Development is therefore considered to be in accordance with the general direction of these Planning Advice Notes.

7.6. Summary

7.6.1. The Scottish Energy Strategy and associated Scottish Onshore Wind Energy Policy Statement provide key support for the Proposed Development. An important driver of the Energy Strategy is the recognition of the requirements of the renewable energy industry to improve efficiency by utilising taller turbines with larger rotor diameters to operate in the post subsidy world, and that such wind turbines can capture more of the available wind resource and improve the efficiency of wind turbine developments. Enabling these requirements is essential in order to meet the ambitious, but achievable, targets set out in the Scottish Energy Strategy.

7.6.2. The Proposed Development will also make a valuable contribution to the ongoing efforts encapsulated in national policy, SPP (2014), to reduce the release of greenhouse gases, to stability of supply and to sustainable economic growth. In the case of climate change policy and the ambition to reduce greenhouse gases there is a recognition that this accords with a much wider framework of international protocols, directives and legislation.

8. Development Plan

8.1.1. As an application submitted under the Electricity Act 1989, the Development Plan is a material consideration in the determination of the application.

8.1.2. The Proposed Development is situated over two council areas; primarily in the Scottish Borders and to a lesser extent in East Lothian. **The proposed wind turbines are located in Scottish Borders** with only a section of underground cabling located in East Lothian. The existing access tracks, anemometry masts, temporary enabling works and the operational substation in East Lothian will have their operational periods extended through this application for consent. Therefore, the relevant Development Plan for this area comprises of:

- SESplan
- Scottish Borders Local Development Plan (LDP) (2016)
- East Lothian Local Plan (2008)

8.2. SESplan

8.2.1. SESplan recognises the necessity to react to climate change, with two of its aims stating in paragraph 17 the need to:

"Integrate land use and sustainable modes of transport, reduce the need to travel and cut carbon emissions by steering new development to the most sustainable locations; and

Contribute to the response to climate change through mitigation and adaptation and promote high quality design / development."

8.2.2. SESplan identifies the importance of wind energy, noting in paragraph 124 that:

"There is a need to derive a higher proportion of heating and energy requirements from renewable sources and to reduce overall energy consumption. LDPs should promote the use of renewable energy and should encourage development that will contribute towards the following national renewable energy targets: 100% electricity demand equivalent from renewables by 2020."

8.2.3. The Proposed Development forms an extension to the existing Crystal Rig Wind Farms and in utilising existing infrastructure is therefore a sustainable location. Its renewable electricity generating capacity of up to 48 MW is a notable contribution to reaching national renewable energy targets and in shifting towards a low carbon economy. The Proposed Development is therefore considered to be supported by the SESplan.

8.3. Scottish Borders Local Development Plan (2016)

8.3.1. This plan provides the policies currently in force in the Scottish Borders. Amongst its main aims is to integrate climate change adaptation requirements such as sustainable renewable energy production.

8.3.2. The LDP lists Key Outcomes that SBC expects to see delivered. Of particular relevance include Key Outcomes 9 & 10 which seek "*The focus of development on sustainable locations*" and "*The development of the area's full potential for electricity and heat from renewable sources, in line with national climate change targets, giving due regard to relevant environmental, community and cumulative impact considerations*" respectively.

8.3.3. As noted above in this document, the Proposed Development is an extension to an existing wind farm and in being able to utilise the existing infrastructure, is a sustainable location. As a generator of renewably sourced electricity, the Proposed Development will assist the Scottish Borders in maximising its potential for electricity from renewable sources. Assessments of the potential environmental, community and cumulative effects are presented in the EIAR which accompanies the application. As such, the Proposed Development is a project which can help the Scottish Borders Council meet these Key Outcomes and is considered to be in line with the strategic direction of the plan.

8.3.4. The primary policy by which the proposed development will be assessed is Policy ED9: Renewable Energy Development. This policy indicates support for development where it can be accommodated without unacceptable significant adverse effects and cross references other relevant polices. The Proposed Development is assessed in greater detail against this policy in the following section.

Policy ED9: Renewable Energy Development

8.3.5. This policy states that:

The Council will support proposals for both large scale and community scale renewable energy development including commercial wind farms, single or limited scale wind turbines, biomass, hydropower, biofuel technology, and solar power, where they can be accommodated without unacceptable significant adverse impact considerations…If there are judged to be relevant significant adverse or effects that cannot be satisfactorily mitigated, the development will only be approved if the Council is satisfied that the wider economic, environmental and other benefits of the proposal outweigh the potential damage arising from it.'

8.3.6. The SBC responded in its scoping opinion, clarifying that:

'*Renewable energy developments, including wind energy proposals, will be approved provided that there are no relevant unacceptable significant adverse impacts or effects that cannot be satisfactorily mitigated.*

Policy ED9 also lists a range of Development Management considerations which are taken from para 169 of Scottish Planning Policy. Consequently it is important that the Environmental Assessment refers to the various issues identified within the Scoping response in order that they are fully addressed as part of the subsequent planning application submission.'

8.3.7. The following section of this planning statement provides an assessment of the Proposed Development against the considerations of Policy ED9.

Onshore Spatial Framework

8.3.8. At the time of writing this PDAS, a spatial framework compliant with SPP (2014) has not been finalised and adopted by SBC. A proposed spatial framework contained within the SBC's Draft Renewable Energy Supplementary Guidance (2016)[3] which has been produced in accordance with SPP (2014) indicates that the Proposed Development is located in an '*Area with potential for wind farm development'*.

8.3.9. This area is the least constrained of the categories used and is therefore a preferable location generally for situating the Proposed Development and should be looked upon favourably in this regard.

Landscape and Visual Impacts

8.3.10. Chapter 8 of the EIAR provides a full Landscape and Visual Impact Assessment (LVIA) of the Proposed Development including consideration of effects on wild land which this policy requires. The LVIA takes account of the Draft Renewable Energy Supplementary Guidance (2016) which serves to update the previous Ironside Farrar Study of Landscape Capacity and Cumulative Impact (2013) which this Policy requires cognisance during assessment. This accords with the advice given by SBC in its scoping opinion:

'It should be noted that an update to the IF 2013 study has been undertaken and has informed the production of the Council's Draft Supplementary Guidance (SG) on Renewable Energy, which is currently being finalised. By the time the Crystal Rig (Phase IV) planning application is submitted it is likely the new SG will be adopted and reference to it and the updated IF study will be required.'

8.3.11. The full LVIA considers the residual effects of the operational phase resulting from the introduction of the Proposed Development following the mitigation measures which have been embedded into the design of the proposed layout. These are summarised in Table 8.1 below.

Table 8.1: Potentially Significant Landscape and Visual Effects

Impact upon:	Potential Significant Effect	Summary of Effect
Landscape Character	Localised significant effects on 3 of the 14 landscape character types.	These are considered to experience highly localised and therefore Acceptable Moderate and Borderline

[3] Available online: https://www.scotborders.gov.uk/downloads/file/2757/draft_renewable_energy_supplementary_guidance (last accessed 23/04/2018)

Impact upon:	Potential Significant Effect	Summary of Effect
		Significant effects.
Landscape Designations	Lammermuir Hills SLA – landscape resource and 2 special qualities. Lammermuir Hills AGLV – 1 special quality Lammermuir Moorland Draft SLA – 1 special quality Whiteadder Draft SLA – 1 special quality	Potentially significant effect upon the identified landscape designations are localised, borderline significant and considered acceptable.
Selected Viewpoints (VP)	From 20 VP with 5 scenarios assessed for each VP, there has been one potentially significant effect identified across each set of assessments for 12 VP. These VP are within 12 km of the Proposed Development and the mitigating factors indicate the effects are acceptable.	From 20 VP with 5 scenarios assessed for each VP, there has been one potentially significant effect identified for 12 VP. These are within 12 km of the Proposed Development and the mitigating factors indicate the effects are acceptable.
Residential Receptors	Potentially significant visual effects predicted upon 2 properties which are within 1 km of the Proposed Development (these properties are financially involved with the Proposed Development).	Potentially significant visual effects predicted upon 2 properties which are within 1 km of the Proposed Development. These properties are financially involved with the Proposed Development.
Sequential Routes	Potentially significant effects predicted for the PRoW BB96 at day and night and upon the PRoW BB97 & BB98 at night.	Potentially significant effects predicted for the PRoW BB96 at day and night and upon the PRoW BB97 & BB98 at night.

8.3.12. The location of the Proposed Development, immediately to the south of the operational Crystal Rig/Aikengall operational turbine cluster provides a strong connection between the Proposed Development and the operational turbines and maintains separation from other operational clusters of development. The Proposed Development therefore complies with Scottish Borders Update of Wind Energy Landscape Capacity and Cumulative Impact Study (2016) which states that:

'*The Lammermuir Plateau has been subject to extensive windfarm development and much of its underlying capacity is occupied. There is capacity for limited additional development of larger turbines provided this is associated with existing windfarms. Extensions should maintain significant separation between the established wind energy clusters, taking advantage of areas with topographical containment and lower intervisibility to avoid increasing the overall prominence of existing windfarms beyond the LCA*.'

8.3.13. Furthermore, the LVIA concludes that the Proposed Development meets the objectives of the guidance as it:

- retains separation and prevents visual coalescence between identified clusters and other Areas of Significant Cumulative Development;
- is not widely visible from the A1 or East Coast Mainline Railway Corridor as shown in ZTV Figure 8.1;

- provides a 'rounding off' of the Crystal Rig/Aikengall operational developments without causing overdevelopment of this upland landscape;
- fits with the current turbine development pattern;
- minimises visibility to sensitive receptors in surrounding areas; including to the north the more visually prominent areas of the northern escarpment of the Lammermuirs visible from population centres of Edinburgh and the Lothians and to the south from the Southern Upland Way.

8.3.14. The Proposed Development is situated adjacent to the west of the now consented Aikengall IIa Wind Farm. This project was granted consent on appeal. It is noted that the Reporter appointed by the Scottish Government's Planning and Environmental Appeals Division (DPEA) concluded in the Report of Inquiry[4] that:

'It is considered that the existence of Crystal Rig, Aikengall I and the approved Aikengall II wind farms on the same upland mass underpins the appropriateness of this location for further, well planned wind farm development. The sensitivity and susceptibility of the landscape to change has been lowered by the existing development, thereby increasing its inherent carrying capacity. Because of the sheer scale of the upland areas, the existing wind farms do not compete with the underlying landform. In his report on the Aikengall II proposal, the reporter concluded that the overall sensitivity of the East Lammermuir Plateau had been reduced by the existing wind farm developments. He considered that the site for that development straddled an area of "medium" sensitivity (the north and west part) and one of "medium-high" sensitivity (the ridge from Wester Dod to Heart Law and its north-eastern slope). The applicant's landscape architect, Mr Welch, considers that the influence of Aikengall I and II has reduced the sensitivity of the current application site to "medium". Although it displays a high landscape value and is of medium quality, the site has a low susceptibility to change. The existing wind farms must be reflected in the assessment of the landscape's sensitivity and capacity to accommodate further such development. The site has the capacity to accommodate the proposed development into the landscape.'

8.3.15. The Reporter's conclusions add weight to supporting the conclusions reached in the LVIA for the Proposed Development as set out in 7.3.13.

8.3.16. Potential significant adverse effects are restricted to isolated landscape and visual effects upon limited receptors within close proximity of the Proposed Development as noted in Table 8.1. Furthermore, it should be noted, as stated in page 33 of the Report of Inquiry in to Aikengall IIa that '*It is important to acknowledge that significant effects are not necessarily unacceptable'*. These effects are commonly associated with wind farms and are therefore considered to be acceptable. On the basis that the potentially significant visual effects identified are not unacceptable, a determination under ED9, as quoted in paragraph 8.3.6, would weigh in favour of the Proposed Development for this element.

All Cumulative Impacts

8.3.17. Potential cumulative landscape and visual impacts have been discussed above and the LVIA indicates that there is capacity for the Proposed Development to be accommodated.

[4] Available online from: https://www.dpea.scotland.gov.uk/CaseDetails.aspx?id=115738&T=20 (last accessed 23/04/2018)

8.3.18. Other potential cumulative impacts are considered in other chapters of the EIAR including assessments upon cultural heritage, traffic, noise, ecology, ornithology, hydrology. All these result in residual effects which are not significant in EIA terms.

8.3.19. There is capacity for the Proposed Development without significant cumulative impacts and is therefore considered to accord with the aims of this policy.

Impacts on communities and individual dwellings

8.3.20. Chapters 8, 12 and 14 of the EIAR assess potential effects on residential amenity.

8.3.21. There are two residential receptors within 1 km of the Proposed Development. These are assessed to potentially experience significant visual effects. The Proposed Development would be seen in the context of existing wind farms directly adjacent.

8.3.22. These same two properties are within the range albeit on the periphery of where shadow flicker may occur. Both properties are however financially involved with the Proposed Development. Any mitigation can be secured through the agreement already established between the Applicant and these properties. The potential visual and shadow flicker effects are not therefore considered to be unacceptable.

8.3.23. A construction noise assessment has been undertaken with reference to BS5288:2009, *Noise and Vibration Control on Construction and Open Sites*, which indicates that noise from construction activities will be significantly below the adopted daytime noise limit of 65 dB L_{Aeq}, and therefore no significant construction noise effects are predicted.

8.3.24. Operational noise from the Proposed Development has been assessed by firstly comparing operational noise level from the Proposed Development in isolation with a noise limit of 25 dB LA90. At locations where predicted noise levels were above this, cumulative predicted noise levels including the existing Crystal Rig Wind Farms and the Proposed Development were compared with the financially involved noise limits or noise limits derived from the Crystal Rig Wind Farm (Phase II) planning conditions. Operational noise levels are below the relevant noise limits at all residential properties surrounding the Proposed Development and therefore operational noise effects are not significant.

8.3.25. It has been ensured that cumulative operational noise levels remain within the noise limits already consented for Crystal Rig Wind Farm (Phase IIa). A cumulative noise assessment with other wind farms is not required because it will be ensured that noise from the existing Crystal Rig Wind Farms and the Proposed Development do not exceed the noise limits already consented for Crystal Rig Wind Farm (Phase IIa).

8.3.26. The Proposed Development does not create unacceptable significant effects upon residential amenity and therefore does not conflict with the requirements of this policy.

Impacts on carbon rich soils, public access, historic environment, tourism, aviation, telecommunications and transport

8.3.27. The Proposed Development is located in an area where the depth of peat, associated with carbon rich soils is very low. Further consultation was undertaken with SEPA, SNH and RSPB in March 2018 after Scoping. This led to an agreement that given the limited peat on site and reduction in size of Borrow Pit E to avoid a small pocket of peat, a Peat Management Plan and Peat Slide Risk Assessment would not be necessary. On this basis, and bearing in mind that it was not a determining factor for any of the previous phases of Crystal Rig Wind Farm, a carbon calculator has been scoped out.

8.3.28. Public access is assessed in Chapter 14 of the EIAR. Proposed turbines are located at least topple distance away from the identified Public Right of Ways BB96 & BB97. A section of new access track which is required to reach proposed turbines no.8-11 will cross over PRoW BB97. This access track would not prevent use of the Right of Way during the operational phase. The crossing point will be signposted. There is a 15 miles per hour speed limit on the Crystal Rig Wind Farms which is in place for health and safety purposes and would also apply to the Proposed Development. The EIAR assesses there to be no significant impact on public access.

8.3.29. Chapter 10 of the EIAR provides a full assessment of the potential effects upon the historic environment. There are no listed buildings on site and one Scheduled Ancient Monument called Yadlee Stone Circle. The EIAR indicates that all assets of low sensitivity or greater have been avoided through sensitive design of the infrastructure layout and only one trackway (Asset 5), of negligible sensitivity, would be directly affected; being crossed by a new site access road. The potential effects upon the setting of historic assets have been assessed with the aid of visualisations stored in Volume 3 of the EIAR and a detailed assessment of Yadlee Stone Circle is also provided in Appendix A10. The Yadlee Stone Circle's baseline setting includes a current land-use context of moorland and rough pasture grazing within an operational wind farm. A major overhead power transmission line passes directly to the north-west of the SAM, two pylons of which are respectively 130 m to the north and 265 m to the southwest of the SAM. The closest operational Crystal Rig turbine is 300 m to the west of the stone circle and two others are 500 m from the SAM on the hillside above and to the west. The EIAR assesses there to be no significant effects upon cultural heritage either directly or upon setting.

8.3.30. Chapter 15 of the EIAR assesses the potential effects of the Proposed Development upon economic activity at both a local and national level including potential effects on the tourism sector. There is likely to be moderate/minor effects on those tourist and recreational destinations identified within the local area, however these are not significant in EIA terms and there is the potential to bring beneficial economic effects to the Economic Study Area (see paragraphs 15.5.13 and 15.6.21 of Chapter 15 of the EIAR) and contribute to addressing the measured levels of deprivation that has been experienced within the Economic Study Area. This overall positive position is in line with national, regional and local policies and strategies in the sense that the Proposed Development is expected to bring a small but overall beneficial level of sustainable economic growth to the Economic Study Area.

8.3.31. The potential effects upon aviation are assessed in Chapter 14 of the EIAR. The CAA requires any structure equal to and taller than 150 m in height to be fitted with visible aviation warning lighting. This will result in seven of the eleven proposed turbines having such lighting and the current CAA requirement is as follows:

- One medium Intensity (2000 candela) omni-directional visible red light on the nacelle of the turbine; a second 2000 candela red light serving as an alternate should be provided in case of failure of the operating light. The lights should be installed to assure that the output of either light is not blocked by the other.
- At least three (to provide 360° coverage) low-intensity (32 candela) visible red lights at an intermediate level of half the rotor diameter below the nacelle.

8.3.32. EIAR Figure 8.17n (vii) Viewpoint 13, provides an illustration of how the Proposed Development may appear in low light conditions with such aviation warning lighting fitted.

8.3.33. Under the usual planning conditions expected upon consent such as those attached to the consent of Crystal Rig Wind Farm (Phase III), the Ministry of Defence (MoD) would be informed of the dates of commencement, completion, final turbine locations and heights. Consultation is ongoing with the MoD to confirm the above mitigation.

8.3.34. It is concluded in the EIAR that with this mitigation in place there are no significant residual effects from the Proposed Development upon aviation interests.

8.3.35. The potential effects upon telecommunications by the Proposed Development are assessed in Chapter 14 of the EIAR. It notes that desk based studies and consultation with owners of potential assets near the Proposed Development was undertaken. With the information available to the Applicant, the Proposed Development does not directly affect this infrastructure and therefore there are no significant effects predicted.

8.3.36. There is an existing access route available both on public and private roads that has been upgraded for the existing Crystal Rig Wind Farms and is currently used for operational access. The ability to use this existing infrastructure minimises disruption and environmental impact and is supported by this policy.

8.3.37. Access routes to site have been used for previous phases of development at Crystal Rig. Final details will be confirmed following purchase of wind turbines by the Applicant and agreed with the planning authority before construction starts through production of a Traffic Management Plan (TMP) similar to that used for other phases of the Crystal Rig Wind Farm.

8.3.38. Other details noted in Chapter 13 of the EIAR to be covered in the TMP would include process for informing the public of the large component deliveries, their escorts and any temporary modifications required on the route. A route survey report and road condition surveys would be undertaken. The assessment of potential effects upon traffic and transport is provided in Chapter 13 of the EIAR. It concludes that without mitigation, potential effects during construction and operation are Negligible/Low – Moderate (not significant) and following mitigation measures, the effects are further reduced to no more than Low/Moderate.

8.3.39. In summary, the Proposed Development does not create any significant residual effects upon carbon rich soils, public access, historic environment, tourism, aviation, telecommunications and transport. It can therefore be supported under this part of the policy.

Effects on natural heritage

8.3.40. Chapter 6 of the EIAR provides a full assessment of the potential effects upon ecology. The Proposed Development is not located in any statutorily designated sites. The EIA identified potential significant effects upon a species of butterfly (Northern brown argus), the Bilberry bumblebee and Hoverfly. However, following mitigation prescribed in the EIAR, the residual effects are reduced to 'negligible' and not significant.

8.3.41. Chapter 7 of the EIAR provides a full assessment of the potential effects upon ornithology. The EIA identified a potential significant effect upon Osprey. However, following mitigation prescribed in the EIAR, the residual effects are reduced to 'low' and not significant.

8.3.42. Chapter 9 of the EIAR provides a full assessment of the potential effects upon hydrology. It identifies the potential for significant effects from construction related activities. However, the preparation of a site specific Construction Environment Management Plan (CEMP) similar to that produced for Crystal Rig Wind Farm (Phase III) and agreed in advance of construction with the planning authority through an appropriately worded planning condition will include details of relevant mitigation. Such effects can be mitigated resulting in residual effects which are not significant.

8.3.43. The Proposed Development is located partly in commercial forestry. The EIAR therefore includes a proposed Forest Design Plan (FDP) to update the long term forest plan for the area as a result of advanced tree felling required to accommodate the Proposed Development. The proposed FDP seeks to re-balance the felling phases and agreement with the Forestry Commission Scotland (FCS) is sought. As a result of the felling, compensatory planting or equivalent as required by the relevant policy at the time will be agreed with the planning authority in consultation with FCS.

8.3.44. In light of the above, the Proposed Development does not result in any significant residual effects and accords with the aim of this policy.

Opportunities for energy storage

8.3.45. The Proposed Development does not feature energy storage but nor does it preclude potential energy storage opportunities at Crystal Rig Wind Farms in the future, an option which the Applicant is mindful of.

Socio-economics

8.3.46. As noted previously in this PDAS, chapter 15 of the EIAR reports that the Proposed Development is expected to have beneficial socio-economic effects at the local and national level during the construction and operation phases.

8.3.47. Crystal Rig Wind Farms represent one of the largest capital investments in East Lothian and Scottish Borders. It is estimated that the total construction cost for the Proposed Development will be approximately £59 million. A string of local companies have been involved with the Crystal Rig Wind Farms in the past during construction and operation and would be invited to tender for similar work on the Proposed Development.

8.3.48. The Proposed Development will be subject to business rates payable to the local authority; an income stream to the local area which has already resulted in over £6.7 million paid since 2003 by Crystal Rig Wind Farm Phases I and II alone[5] and will add to the existing renewable energy development powering the East Lothian and Scottish Borders areas, consistent with the aims of the Scottish Energy Strategy[6].

8.3.49. In addition to the direct spend by the developer and subcontractors, the tourism sector locally benefits from the spend of contractors that come into the area to work. Each year there are 300 bednights taken by workers on the Crystal Rig Wind Farms. It is estimated that these stays add £30,000 each year to the local tourist economy.

8.3.50. The Proposed Development will have a beneficial economic effect locally and nationally and provide employment and associated business and supply chain opportunities which are supported by the aim of this policy.

Renewable energy generation

8.3.51. The Proposed Development will have a renewable electricity generating capacity of up to 48 MW. This will be achieved from the operation of only 11 new wind turbines. This equates to almost one quarter of the total generating capacity provided by the 91 turbines operating within the existing Crystal Rig Wind Farms. The Proposed Development therefore provides a

[5] Figure has been calculated based on information obtained from FORL and information obtained from the local authority.

[6] Available online: http://www.gov.scot/energystrategy (last accessed 09/05/2018)

considerable increase in the generation of renewable electricity and progress towards the associated national targets which is a beneficial effect supported by the aim of this policy.

8.3.52. Since 2011 Crystal Rig Wind Farm has produced an average of over 500 GWh of electricity annually. In terms of carbon savings, the industry standard for estimating the carbon savings is based on 430 kg[7] of carbon dioxide emissions saved for each MWh of wind power produced. Therefore Crystal Rig Wind Farms have saved over 200,000 tonnes of carbon dioxide each year since 2011. Carbon dioxide is a greenhouse gas and such savings which the Proposed Development will increase is a beneficial effect supported by the aim of this policy.

Decommissioning

8.3.53. The EIAR provides a high level strategy for decommissioning which is presented in Chapter 5 of the EIAR and is considered in the different assessments undertaken and presented in the EIAR. An appropriately worded planning condition could be attached to a consent for the Proposed Development to ensure that a detailed decommissioning strategy would be developed in agreement with SBC towards the end of the operational period of the Proposed Development.

Site restoration

8.3.54. If so required, the Applicant will work with the planning authority to reach an agreeable planning obligation that is robust and sufficient to ensure the site can be restored.

SBC LDP (2016) Summary

8.3.55. It is recognised that there are policies within the LDP which have relevance to aspects of the Proposed Development. The primary policy is Policy ED9 which specifically addresses wind farm proposals and requires assessment of various topics covered elsewhere in the LDP. The assessment of the Proposed Development against Policy ED9 provided in this PDAS concludes that there are no unacceptable significant adverse effects and therefore the Proposed Development can be supported under this policy.

8.4. East Lothian Local Plan (2008)

8.4.1. As noted previously, part of the Proposed Development Area covers East Lothian although no wind turbines are proposed in this area. The infrastructure **proposed in East Lothian consists of some underground electricity cabling** to connect the Proposed Development to the operational substation. The access tracks, anemometer masts and substation are all existing and are proposed to have their operating period extended to coincide with the Proposed Development. Therefore, the East Lothian policies of relevance which the Proposed Development should be assessed against relate primarily to traffic and transport. It is also observed that this plan is due to be superseded by the Draft LDP which is likely to occur during determination of the Proposed Development.

8.4.2. The Proposed Development is expected to make use of the same transport route through East Lothian to facilitate the Heavy Goods Vehicles and Abnormal Indivisible Load deliveries to site. Policy T2 is of most relevance in this regard and requires new development proposals to have no significant adverse consequences for road safety. An assessment of the potential effects upon traffic and transport is provided in Chapter 13 of the EIAR. This PDAS has

[7] DECC, A Comparison of Emissions Factors for Electricity Generation, July 2013

discussed access already in paragraphs 8.3.36-8.3.38. The potential effects are not significant and will be managed through agreement of a TMP with East Lothian Council in advance of construction commencing.

8.4.3. It is acknowledged that there are viewpoints (VP) located in East Lothian which have landscape and/or cultural heritage relevance, including VP 8, 9, 10, 12, 13, 14, 16, 17, 18, 19 and 20. In total, 20 VP were assessed in the LVIA and for every VP, 5 scenarios were assessed. There was only one potentially significant effect identified across each set of assessments for 12 of those VP and those were within 12 km of the Proposed Development including VP 8, 10, 13, 18 in East Lothian. The mitigating factors applicable to the individual effect upon each VP indicate the effects are acceptable. Chapter 10 of the EIAR assess potential effects on the setting of cultural heritage assets including Traprain Law in East Lothian and reports there to be no significant effect.

8.4.4. If Policy NRG3 of the Local Plan is applied and bearing in mind that no wind turbines are proposed in East Lothian it is considered that the Proposed Development could be supported under part 2 as it *'would not have an unacceptable visual impact on landscape or townscape including the impact on distinctive public views, landmark buildings or natural features, or routes'.*

8.4.5. The Proposed Development is therefore considered to have no conflict with the relevant provisions of the East Lothian Local Plan.

8.5. Development Plan Conclusions

8.5.1. In total the relevant policy documents that form the Development Plan consist of the SESplan, SBC LDP and ELC Local Plan. The SESplan identifies the need for wind energy development, to develop in sustainable locations and cut carbon emissions. Amongst its main aims, the SBC LDP aims to integrate climate change adaptation requirements such as sustainable renewable energy production and policy indicates support for development where it can be accommodated without unacceptable significant adverse effects. The ELC Local Plan provides policy which of most relevance is to ensure safety on the roads.

8.5.2. The Proposed Development is within an area with potential for wind farms as identified in the SBC Draft Spatial Framework. The SESplan and SBC policies provide clear strategic level of support for the Proposed Development. The potential effects of the Proposed Development have been assessed in detail in the EIAR which accompanies the application and found on balance to be acceptable. The Proposed Development is therefore considered to be supported by the Development Plan.

9. Existing Guidance

9.1. Scottish Borders Council Supplementary Planning Guidance - Wind Energy May 2011

9.1.1. This Supplementary Planning Guidance (SPG) was produced prior to NPF3, SPP (2014) and more recent Scottish energy policies being published. The SPG is intended to help guide developers to appropriate areas for development and provide additional information for planners to assess a wind farm proposal. The SPG indicates that the Proposed Development is located in an area of "Moderate Constraint" which is simply representative of the criteria used by SBC which it would consider in applying weight to determination of a proposal in this

area, as detailed on page 25, in Figure 6 of the guidance. However, this existing guidance is not compliant with SPP (2014) and the criteria it provides for producing an appropriate spatial framework. With this in mind and the Draft SG (section 10.2) on the verge of adoption, more weight should be apportioned to consideration of the Proposed Development against the Draft SG rather than Wind Energy (2011).

9.2. Scottish Borders Council SPG - Landscape Capacity and Cumulative Impact (2013)

9.2.1. The main aims of this document are to provide guidance on the capacity of Scottish Borders landscapes to accommodate wind turbines, the public attitudes towards wind energy, socio-economics and to inform policy.

9.2.2. At the time this SPG was produced, it categorised very large turbines as being more than 100 m in height. By today's standard, these are relatively small. The SPG suggested there was capacity for further turbine development in the Lammermuir and Moorfoot Hills. It reported that following public attitude survey of 400 telephone interviews, the key findings were majority support for onshore wind power and the majority finding the look of wind turbines on the landscape as acceptable. The SPG also reported that the number of tourists to the Scottish Borders increased by 17.5% between 2006 and 2011 and that *realising the economic and employment opportunities of wind energy is not inconsistent with maintain a strong and growing tourism sector.*

9.2.3. Regardless of the landscape capacity studies that the SPG provides, it does emphasise on page 2 that *this is a strategic level study providing a context for consideration of capacity for, and the cumulative effects of, existing and potential future wind turbine developments. No site specific conclusions should be drawn from it in relation to currently proposed or potential future wind turbines and windfarms. All wind energy proposals should be considered on their own unique locational and design characteristics as well as their strategic context.*

9.2.4. This SPG was also produced prior to NPF3, SPP (2014) and more recent Scottish energy policies being published. It is expected at the time of writing that new Draft SG will be adopted by SBC during determination of the Proposed Development. This SPG is likely to hold little weight in the determination and none if superseded.

9.3. East Lothian Council Guidance for Wind Farms of 12 MW and over (Dec 2013)

9.3.1. Although no wind turbines from Crystal Rig Wind Farm (Phase IV) are proposed to be developed in East Lothian, the guidance[8] was referred to during the design process of the Proposed Development. As noted above in paragraph 8.4.3, limited potentially significant effects were identified and assessed to be acceptable. Again this was also produced prior to NPF3, SPP (2014) and more recent Scottish energy policies being published and given the Proposed Development does not offer wind turbines in East Lothian, this guidance is considered to hold very little weight in the determination process.

[8] Available online at http://www.eastlothian.gov.uk/info/206/planning-advice_and_guidance/1130/renewable_energy/2 (last accessed 02/03/2018)

10. Emerging Plans and Guidance

10.1. SESplan

10.1.1. The second proposed SDP was submitted to Scottish Ministers for examination on 26 June 2017 and therefore the new SDP might be adopted whilst the proposed development is being determined. The new SDP is anticipated to reflect national policy for promoting sustainable development that will help transition the country and SESplan area to a low carbon economy.

10.1.2. It is therefore anticipated that the Proposed Development will be supported by the policy aims of the emerging SESplan.

10.2. Scottish Borders Supplementary Guidance on Renewable Energy

10.2.1. New Supplementary Guidance (SG) for Renewable Energy (2016) was consulted on by SBC in 2017[9]. This Draft SG includes a spatial framework compliant with SPP (2014) which indicates that the Proposed Development is located in an "Area with Potential for Wind Farm Development". Once adopted, which may occur during the determination of the Proposed Development, it will supersede the existing planning guidance – Wind Energy (2011).

10.2.2. Figure 12 of the Draft SG is Figure 6.1e of the Scottish Borders Updated Wind Energy Capacity Study. It identifies the Proposed Development Area with a 'medium' capacity for accommodating turbines larger than 120 m tip height. This is the greatest capacity for such turbines identified anywhere in the Scottish Borders in this map. Guidance for siting development within the Lammermuir Hills Landscape Character Area, contained in Appendix C of the Draft SG: Wind Energy Landscape Capacity and Cumulative Impact Study (2016) states that *'The Lammermuir Plateau has been subject to extensive windfarm development and much of its underlying capacity is occupied. There is capacity for limited additional development of larger turbines provided this is associated with existing windfarms. Extensions should maintain significant separation between the established wind energy clusters, taking advantage of areas with topographical containment and lower intervisibility to avoid increasing the overall prominence of existing windfarms beyond the LCA.'*

10.2.3. Chapter 8 of the EIAR assesses that the location of the Proposed Development, immediately to the south of the operational Crystal Rig/Aikengall operational turbine cluster provides a strong connection between the Proposed Development and the operational turbines and maintains separation from other operational clusters of development, mainly the Fallago Rig cluster to the south-west, the Dun Law/Toddleburn cluster far to the south-west and the Penmanshiel/Coldingham Moor/Quixwood development cluster to the south-east. The Proposed Development therefore complies with this guidance.

10.2.4. The guidance provides a high level guide and sets out detailed policy considerations against which wind farm developments will be assessed. This is at odds with the purpose and intention of supplementary guidance as set out in 27(2) of the Town and Country Planning (Development Planning) (Scotland) Regulations 2008 which state that:

[9] Available online: https://www.scotborders.gov.uk/info/20051/plans_and_guidance/766/renewable_energy_supplementary_guidance (last accessed 02/03/2018)

10.2.5. *'Supplementary guidance adopted and issued under section 22(1) of the Act in connection with a particular strategic development plan or local development plan may only deal with the provision of further information or detail in respect of the policies or proposals set out in that plan and then only provided that those are matters which are expressly identified in a statement contained in the plan as matters which are to be dealt with in supplementary guidance.'*

10.2.6. The SG should therefore be limited to the provision of further information or detail in respect of policies set out in the LDP and assessment of the Proposed Development focussed against Policy ED9. The SG predates the Onshore Wind Policy Statement and Scottish Energy Strategy and as such doesn't fully account for the scale of turbines associated with the Proposed Development.

10.2.7. Site specific assessments for the Proposed Development are contained within the EIAR and having directly addressed specifics of the Draft SG, the Proposed Development accords with the relevant requirements of this guidance.

10.3. East Lothian Local Development Plan

10.3.1. At the time of writing this PDAS, the proposed LDP for East Lothian is under examination by Scottish Ministers. The new LDP is expected to be adopted some time in 2018. In its scoping opinion issued in 2017, ELC provided no reference to specific policies to be considered.

10.3.2. The proposed LDP recognises the A1 as its main transport corridor and has an objective to promote sustainable development. As already stated in this PDAS, the Proposed Development's re-use of existing infrastructure in a location where it can be accommodated within the landscape is an example of sustainable development.

10.3.3. The proposed LDP re-uses Policy T2 from the Local Plan and having already been assessed in this PDAS it is considered that there is no conflict with this policy.

10.3.4. Policy WD1 refers specifically to the ELC's proposed Spatial Framework and is therefore not relevant given no turbine development is proposed within the area covered by the Framework. Policy WD3 is specific to the development of wind turbines. Bearing in mind no wind turbines are proposed in East Lothian, the Proposed Development has nonetheless been assessed as having no unacceptable effects upon the considerations accounted for by this policy and detailed in other policies elsewhere in the LDP.

10.3.5. The proposed LDP contains Policy WD4: Access Tracks. This proposed policy seeks to ensure that access and other tracks serving wind turbines are appropriately designed and located to minimise potential environmental, landscape, public access and cultural heritage effects. The Proposed Development will utilise access already established in East Lothian and has no conflict with this policy.

10.3.6. It is considered that the Proposed Development can be supported under the forthcoming LDP.

11. Summary and Conclusions

11.1.1. This Planning, Design & Access Statement has been prepared by Natural Power on behalf of the applicant to allow determination of the Proposed Development under the terms of The Electricity Works (Environmental Impact Assessment) (Scotland) Amendment Regulations 2017.

11.1.2. Although not a statutory requirement under the Act, this statement identifies as a measure of good practice the principal design and access considerations that have been incorporated into the Proposed Development. The EIAR provides a detailed written statement about the design principles and concepts including consideration of alternatives that have been applied to the Proposed Development.

11.1.3. This PDAS also confirms that an EIA of the Proposed Development was undertaken in acknowledgement of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 and has included chapters which in combination assess the potential effects upon human health and population.

11.1.4. The Scottish Energy Strategy and associated Scottish Onshore Wind Energy Policy Statement provide key support for the Proposed Development. An important driver of the Energy Strategy is the recognition of the requirements of the renewable energy industry to improve efficiency by utilising taller turbines with larger rotor diameters to operate in the post subsidy world, and that such wind turbines can capture more of the available wind resource and improve the efficiency of wind turbine developments. Enabling these requirements is essential in order to meet the ambitious, but achievable, targets set out in the Scottish Energy Strategy.

11.1.5. The Proposed Development will also make a valuable contribution to the ongoing efforts encapsulated in national policy, SPP (2014), to reduce the release of greenhouse gases, to stability of supply and to sustainable economic growth. In the case of climate change policy and the ambition to reduce greenhouse gases there is a recognition that this accords with a much wider framework of international protocols, directives and legislation.

11.1.6. The Development Plan also provides a supportive framework for the Proposed Development, within the context of its overarching policies aimed to support sustainable economic growth while also helping to tackle climate change. Whilst this support is balanced against the need for appropriate environmental protection, the Proposed Development has been found through the EIA process and examination of the plan's policy requirements to be acceptable. The Proposed Development is therefore considered to have the support of the Development Plan and to be reflective of the direction which the emerging LDP and other guidance will follow.

11.1.7. As stated in the introduction, it is proposed that, as far as is practical, similar planning conditions to those attached to the Crystal Rig Wind Farm (Phase III) consent should be applied to the Proposed Development. This will ensure that there is, in general, duplicate sets of similar conditions applying to the Crystal Rig Wind Farms as a whole with the new set recognising the use of shared infrastructure for the lifetime of the new phase of development. The existing Crystal Rig Wind Farms are considered to be very successful and have been delivered and operated within the various requirements of the existing consents. It is therefore appropriate that this success continues with the Proposed Development.

11.1.8. Taking all these factors in to account, the Proposed Development is considered to be in accordance with SPP, the Scottish Energy Strategy, the Scottish Onshore Wind Energy Policy Statement, the Development Plan and is supported by other material considerations. Accordingly, in line with the terms of the Electricity Act 1989, the application should be approved and that deemed consent under the Town and Country Planning (Scotland) Act 1997 as amended also be granted.

Fred. Olsen Renewables

Fred. Olsen Renewables Ltd
2nd Floor 64-65 Vincent Square
London
SW1P 2NU
United Kingdom

Natural Power
The Greenhouse, Forrest Estate
Dalry, Castle Douglas
DG7 3XS
United Kingdom

sayhello@naturalpower.com

natural power

Natural Power acting as lead consultants on behalf of Fred. Olsen Renewables.