
COMMITTEE: Planning Committee
MEETING DATE: 13 January 2026
BY: Depute Chief Executive – Resources and Economy
REPORT TITLE: ECU Consultation Response

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ECU Application No. ECU00005089

ELC Reference No. 25/00005/SGC

Proposal Electricity Act 1989 – Application for construction and operation of a repower of Crystal Rig 1 wind farm. Consisting of up to 10 wind turbines including six turbines with a maximum overall height (to blade tip) of up to 230 m and the remaining four turbines with a maximum overall height (to blade tip) of up to 200 m

Location Crystal Rig 1 Wind Farm, approximately 10km South of Dunbar and approximately 40km East of Edinburgh, within the Lammermuir Hills

Applicant Fred Olsen Renewables
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Ward 06 Dunbar and East Linton

Date 18 December 2025

REPORT

In Scotland, any proposal to construct, extend, or operate an onshore electricity generating station with a capacity of 50 megawatts (MW) or over requires the consent of Scottish Ministers under Section 36 of the Electricity Act 1989. Such applications are processed on behalf of the Scottish Ministers by the Energy Consents Unit ("ECU"). Onshore generating stations which will have a capacity of less than 50MW when constructed are not within the scope of the Electricity Act, and such proposals require an application for planning permission to be submitted to the relevant local planning authority.

The ECU consults East Lothian Council on all Section 36 applications within East Lothian. At

the Council meeting of 27 February 2024 a new procedure for processing Section 36 consultation requests was approved. It was agreed that once the consultation response has been completed by the Planning Service it will be placed on the Committee Expedited List. Members then have seven days in which to request referral to Planning Committee. Otherwise, the consultation response is deemed to be accepted and the Service Manager for Planning shall be authorised to proceed on that basis.

The ECU have consulted the Council in respect of a repower of Crystal Rig I wind farm on land located approximately 10km South of Dunbar and approximately 40km East of Edinburgh, within the Lammermuir Hills. The consultation response completed by the Planning Service is attached as Appendix 1.

RECOMMENDATION

It is recommended that the content of Appendix 1 is approved as the Council's consultation response to the ECU.

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ENERGY CONSENTS UNIT (“ECU”) CONSULTATION: PROPOSED CRYSTAL RIG 1 WIND FARM REPOWER ON LAND LOCATED APPROXIMATELY 10KM SOUTH OF DUNBAR AND APPROXIMATELY 40KM EAST OF EDINBURGH, WITHIN THE LAMMERMUIR HILLS (REFERRED THROUGHOUT THIS REPORT AS “CRYSTAL RIG 1 REPOWER”), EAST LOTHIAN COUNCIL’S RESPONSE

BACKGROUND

This application has been made to the Scottish Ministers under Section 36 of the Electricity Act 1989 for the construction and operation of a wind farm. In the case of S36 applications planning authorities are a consultee to the application process and are not the Consenting Authority.

With regard to paragraph 2(2) of Schedule 8 to the Electricity Act and regulation 8 of the Consents Regulations, if a planning authority makes an objection within the timescale given by regulation 8 (1) and that objection is not withdrawn, the Scottish Ministers must cause a Public Inquiry to be held unless the Scottish Ministers propose to accede to the application subject to such modifications or conditions as will give effect to the objection of the planning authority.

SITE

The application site covers approximately 893 hectares and is located approximately 10km south of Dunbar, and approximately 40km east of Edinburgh, within the Lammermuir Hills. The site is located across two council areas, with the proposed access area located within East Lothian Council (“ELC”) and the proposed turbine area located within the Scottish Borders Council (“SBC”).

The proposed turbine area is situated within the Lammermuir Hills Local Landscape Area and is predominantly on open heather moorland. The proposed access area, whilst is predominantly on existing roads, also includes agricultural fields.

The nearest settlement to the site is Cranshaws, located approximately 4.8km to the south of the proposed turbine area, with the nearest residential property (Crichness Farm) located 570m to the southeast of the site boundary.

The River Tweed flows along the southwest boundary of the site and joins the River Tweed Special Area of Conservation (“SAC”) designation.

The proposed access area lies within an area of countryside as defined by Policy DC1 of the adopted East Lothian Local Development 2018 (“ELLDP”). Several designated sites are located within the site boundary:

- Dryburn Valley & Dunglass Burn Local Biodiversity Sites;
- Woodhall Dean Site of Special Scientific Interest (“SSSI”);
- Thurston Home Farm (Category A), North Lodge And Gate Piers, Thurston House (Category B) and East Lodge, Thurston House (Category C) Listed Buildings;
- Thurston Local Garden & Designed Landscape (GDL)
- Scheduled Monument - Thurston, enclosures and ring-ditch 600m NE of (SM5870);
- Halls to Bransley Hill Special Landscape Area (“SLA”);
- Doonhill to Chesters SLA;
- Tree Preservation order Number 150 – Land to the south side of East Lodge, Innerwick; and
- Several areas of Ancient Woodland including Whittly Strip, Birky Bog Plantation, Aikendean Wood and High Wood (NT67 and NT77).

The Applicant has undertaken an Environmental Impact Assessment (“EIA”) and produced its findings in the EIA Report (“EIAR”). The EIAR informs readers of the nature of the Proposed Development, likely significant environmental effects and measures of mitigation proposed to protect the environment during site preparation, construction, operation and decommissioning.

PROPOSAL

The proposed development is located within the existing Crystal Rig 1 site, which was established in 2003 as one of Scotland’s first onshore commercial-scale wind farms. Crystal Rig 1 was consented for a 25-year operational life, which ends in 2027. The site currently comprises 21 turbines and benefits from an existing grid connection with an export capacity of up to 62.5 MW. All 21 turbines will be decommissioned to enable the construction of the proposed development.

The proposed development would have an estimated generating capacity of up to 72 MW for an operational period of 35 years. The proposed development would consist of the following aspects:

- 10 wind turbines and associated foundations (each measuring an approximate 25m in diameter and 4m in depth);

- Crane hardstandings;
- Transformers;
- Switch room;
- Onsite control building, maintenance building and parking area;
- Underground cabling network;
- New and upgraded internal site access tracks;
- Fencing and gates;
- Two temporary construction compounds and concrete batching plant;
- One area of potential exaction/borrow pit workings;
- 43.01 ha of peatland and bog restoration; and
- 4.18 ha of woodland creation.

The proposed access area is predominantly along existing road networks, starting at the Innerwick Junction off the A1 southbound carriageway where it joins the minor road C122. The proposed access area follows a series of roads including the C123, U196 and U201. A buffer along these sections of road would be required to accommodate the abnormal indivisible load vehicles. This buffer varies in width along the proposed access route and the full extent is shown on Figure 1.1 of the EAIR. The proposed access area is the same route as was used for the construction of previous phases of the Crystal Rig complex. It is also proposed to contain one of the two construction compounds within the proposed access area. This would be used as the main construction compound for storage of material and infrastructure for construction personnel. It is proposed that this construction compound is maintained for further use among the wider Crystal Rig complex.

The proposed turbine area is within the existing Crystal Rig 1 area and anticipates utilising existing access tracks where possible. It is proposed that 4.75km of new access tracks are to be formed and 10.2km of existing tracks to be upgraded. Of the 10 turbines proposed, six would measure a maximum overall height of up to 230m and the remaining four with a maximum overall height of up to 200m.

The construction of the proposed development would take approximately 18 to 24 months, from mobilisation through to site reinstatement. Normal construction hours are anticipated however it is noted that out of necessity due to weather conditions and health and safety requirements, some activities, such as abnormal load deliveries and the lifting of turbine components may occur outside the normal construction hours.

Chapter 4 (Project Description) of the EIAR notes that advance warning of any works outside normal working hours will be provided to the SBC Environmental Health Officer. However, as the proposed access area lies wholly within ELC, we request that a condition be attached to ensure ELC is also informed in advance of these works.

Similarly, Section 4.6 of Chapter 4 states that a Construction Environmental Management Plan ("CEMP") will be drafted and agreed with SBC prior to commencement of construction. Given that the proposed access area is wholly within ELC, any CEMP should also be agreed with ELC.

Once the proposal has reached the end of its operational life, approximately 35 years, the EIAR states that it is expected that decommissioning will take approximately 12 months. The environmental effects are anticipated to be similar to those during construction, excluding the loss of habitat which

will have occurred already during construction. Appendix 4.2 (Decommissioning, Restoration and Aftercare Statement) of the EIA provides an outline on how the proposed development will be decommissioned after its operation, including restoration and aftercare measures. It states that all works must be agreed with ELC and SBC

The decommission of Crystal Rig 1 wind farm would be managed by the consenting process for the original development and as such not assessed within the EIA.

THE DEVELOPMENT PLAN

This application is made under the Electricity Act 1989 and not the Planning (Scotland) Act, therefore the development plan does not have the primacy it normally would for planning decisions. It is still an important material consideration in this instance and informs the Council's consultation response.

The development plan comprises the National Planning Framework 4 ("NPF4"), which was adopted by Scottish Ministers on 13 February 2023, and the ELLDP.

Appendix B (National Development Statement of Need) of NPF4 identifies 18 national developments that are significant developments of national importance. National development 3 of NPF4 (Strategic Renewable Electricity Generation and Transmission Infrastructure) supports renewable electricity generation, repowering, and expansion of the electricity grid.

National development 3 informs that the electricity transmission grid will need substantial reinforcement including the addition of new infrastructure to connect and transmit the output from new on and offshore capacity to consumers in Scotland, the rest of the UK and beyond.

Whilst National development 3 references a Scotland wide rather than a specific location, the south of Scotland (including East Lothian) is identified for supporting on and offshore electricity generation from renewables and delivering new and/or upgraded infrastructure directly supporting on and offshore high voltage electricity lines, cables and interconnectors including converter stations, switching stations and substations.

National Planning Framework 4

NPF4 is Scotland's national spatial strategy for Scotland. It sets out spatial principles, regional priorities, national developments and national planning policy. Relevant policies are:

- 1 – Tackling the climate and nature crises
- 2 – Climate mitigation and adaptation
- 3 – Biodiversity
- 4 – Natural places
- 5 – Soils
- 6 – Forestry, woodland and trees
- 7 – Historic Assets and Places,
- 11 – Energy
- 12 – Zero Waste
- 13 – Sustainable Transport
- 14 – Design, Quality and Place
- 18 – Infrastructure First
- 20 – Blue and Green Infrastructure
- 22 – Flood risk and water management

East Lothian Local Development Plan

The following policies within the ELLDP are relevant to the proposed

development: WD1 (Wind Farms)
WD3 (All Wind farms)
WD4 (Access Tracks)
WD6 (Decommissioning and Site Restoration) W4 (Construction Waste)
DC1 (Rural Diversification)
DC9 (Special Landscape Areas)
NH1 (Internationally Designated Sites)
NH3 (Protection of Local Sites and Areas) NH3 (Protection of Local Site and Areas) NH4 (European Protected Species)
NH5 (Biodiversity and Geodiversity Interest, including Nationally Protected Species), NH7 (Protecting Soils)
NH8 (Trees and Development) NH9 (Water Environment) NH11 (Flood Risk)
NH13 (Noise)
CH1 (Listed Buildings)
CH2 (Development in Conservation Areas)
CH4 (Scheduled Monuments and Archaeological Sites) CH6 (Gardens and Designed Landscapes)
T1 Development Location and Accessibility T2 (General Transport Impact)
T4 (Active Travel Routes and Core Paths as part of the Green Network Strategy) DP1 (Landscape Character)
DP2 (Design)
SEH1 (Sustainable Heat and Energy)
SEH2 (Low and Zero Carbon Generating Technologies)

OTHER RELEVANT POLICY

Scottish Borders Local Development Plan (LDP2) 2024
East Lothian Council Tree and Woodland Strategy

REPRESENTATIONS

A total of five public representations have been received in relation to the proposed development, three of which object to the proposal. The main grounds of objection include:

- continuous construction traffic in the area since 2020 due to multiple windfarm projects, which is perceived as a permanent condition rather than temporary;
- ongoing road issues, including speeding, dangerous driving, lack of signage, road deterioration, intimidation, and increased roadkill;
- significant sacrifice by the local community, raising questions about the necessity of repowering given surrounding energy developments;

- adverse visual effects due to taller proposed turbines with aviation lighting;
- insufficient mitigation has been secured and as such the requirements of the Electricity Act are not met;
- the visual effects are not localised and the range of other effects are contrary to NPF4 Policies 3, 4 and 11;
- decommissioning not adequately addressed within the EIA and should be considered;
- the project should be designed so that power output remains within the capacity of the existing cable and substation connection; and
- swept path analysis should be provided to ensure no further road widening or loss of trees/hedgerows.

The other two representations neither support nor object to the proposal but raise concerns regarding road safety and the poor condition of local roads proposed for site access. They highlight ongoing issues with responsibility for repairs and suggest that roads should be upgraded (free of potholes and cracks) prior to construction or decommissioning. Other notes of concern include (i) cumulative visual impact, (ii) net biodiversity gain should be clearly demonstrated, (iii) disposal of existing turbines and foundations, (iv) potential bird strikes, and (v) ensure aviation safety.

COMMUNITY COUNCIL COMMENTS

Dunbar Community Council

A neighbouring Community Council, Dunbar Community Council (DCC), has provided comments regarding the proposed development and whilst they do not object have raised a number of concerns and comments regarding the proposal. These have been summarised below:

- clarification should be provided regarding the removal of the original turbine bases and how this land will be restored;
- details on the disposal and potential recycling of the current turbines should be provided and road safety during removal should be addressed;
- there are road safety concerns during construction, especially along the A1 and Innerwick junction. It is suggested developer contribution for safety improvements (e.g., lighting);
- net biodiversity gain should be demonstrated with clear proposals and species protection;
- cumulative visual impact; consider paint colours to reduce dominance of taller turbines (230m and 200m);
- query over how bird strike risks will be mitigated due to taller turbines;
- the proposal should ensure RAF low-flying safety with appropriate measures (e.g., warning lights); and
- the applicant should continue community engagement and provide further Community Benefits funding to East Lammermuir CC and East Lothian Community Benefits SCIO.

East Lammermuir Community Council

East Lammermuir Community Council (ELCC) have provided comments noting that the entire access route for the proposed development passes through East Lammermuir. While they tentatively support the proposal, they have raised concerns about the introduction of a permanent works access route and the resulting disruption and delays for local residents. ELCC has therefore emphasised the need for a number of planning conditions to reflect and mitigate the significant and permanent changes this proposal would bring.

These conditions cover the matters of generating capacity and grid connection, drainage, micro-siting, construction traffic management, biodiversity enhancement, vegetation maintenance/removal and decommissioning.

East Lothian Council recommends that the ECU should carefully take into account the recommended conditions and views of ELCC and DCC in their assessment of this proposal.

PRINCIPLE OF DEVELOPMENT

The proposed development would enable the storage of electricity and would contribute to the delivery of infrastructure of national importance. As transmission infrastructure to support renewable energy, it is also part of National Development 3 and is thus supported by NPF4.

As the proposal supports renewable energy, the principle of the proposal is also consistent with Policy 11 of NPF4, which states that development proposals for all forms of renewable, low-carbon and zero emissions technologies will be supported, including enabling works, such as grid transmission and distribution infrastructure.

Repowering is also supported under Policy 11 of NPF4 which gives significant weight to proposals that contribute to renewable energy targets, including upgrading or replacing turbines at existing wind farm sites to improve capacity and efficiency. Repowering is encouraged as part of Scotland's strategy to achieve net zero and increase renewable generation, and large-scale wind farms (over 50MW) are designated as national developments, strengthening their planning status.

The ELLDP helps facilitate the transition to a low carbon economy by supporting means of energy generation that help to reduce greenhouse gas emissions. It seeks to support a diverse range of renewable and low carbon energy generation in appropriate locations, taking environmental, community and cumulative issues into account.

The proposed access area, to facilitate the wind farm, is allocated within the ELLDP as countryside and therefore Policy DC1 (Rural Diversification) is relevant to the determination of this application. This policy states that development in the countryside, including changes of use or conversions of existing buildings, will be supported in principle where it is for:

- a) agriculture, horticulture, forestry, infrastructure or countryside recreation; or
- b) other businesses that have an operational requirement for a countryside location, including tourism and leisure areas

This policy recognises that countryside sites may be needed to provide infrastructure for operational reasons and states that proposals for renewable energy will be considered against other plan policies.

Whilst the principle of this development is acceptable, there are other issues that require to be considered. This is in line with Policy 11 of NPF4 which lists 13 criteria relating to the design and mitigation of energy related developments that require to be addressed to determine their compliance with the Development Plan.

CLIMATE

Policy 1 of NPF4 states that when considering all development proposals significant weight will be given to the global climate and nature crises.

The Scottish Government's Climate Change Plan sets out the national Scottish Government's pathway to achieve the ambitious targets set by the Climate Change (Scotland) Act 2009, as amended by the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019, and the commitment to end Scotland's contribution to climate change by 2045.

Scotland's renewable electricity generation has grown rapidly over the last twenty years, and a large contribution to achieving the commitment set out in the plan will be made by the increased decarbonisation of our electricity system.

The Climate Change Plan notes operating a zero-carbon electricity system will mean finding new ways to provide a range of technical services and qualities currently provided by fossil fuel and nuclear generation. Battery storage and solar are technologies which helps achieve these goals.

However, it is important to ensure that the lifecycle carbon impacts of the proposal itself are assessed and mitigated. At its meeting on the 27 August 2019 the Council approved a motion declaring a Climate Emergency. Thereafter, at its meeting on the 3 of September 2019 the Council's Planning Committee decided that a condition requiring a developer to submit for the approval of the Planning Authority a report on the actions to be taken to reduce the carbon emissions from the completed development should be imposed on consents for relevant development proposals.

It is recommended that such a condition should be imposed on any consent for this proposed development, consistent with the requirements of Policy 2 of NPF4 and Policy SEH2 of the ELLDP.

The Council's Sustainability and Climate Change Officer has provided comments on the proposed development, acknowledging the positive contribution it would make towards addressing the climate emergency and the reuse of existing tracks and materials wherever possible. They further note that, while they do not object to the developer's decision not to use a carbon calculator for peatland soils, they would like to see an estimate of emissions arising from the construction and maintenance of the development. Ideally, this should include details of the mitigation measures proposed to minimise carbon emissions during construction, for example, procuring European-manufactured turbines or reusing materials for turbine bases.

Additionally, the Officer states that, while supportive of the development overall, they believe the electricity generation figures may have been overestimated. Based on an installed capacity of 72 MW, multiplied by 8,760 hours in a year and applying the DESNZ estimated load factor for onshore wind (0.253), the annual output would be approximately 159,572 MWh rather than 270,579 MWh. This equates to zero-carbon electricity for around 49,250 homes, not 83,512 as stated. A further explanation of this calculation would be welcomed to ensure accuracy within the EIAR.

NOISE AND VIBRATION

The EIAR provides an assessment on Noise (Chapter 12) which assesses the potential for significant noise and effects arising from the construction and operation of the proposed development.

The **Council's Environmental Health Officer** has been consulted, and they state they are *'satisfied that noise during the operational phase of development, for both the independent operation of Crysyal Rig 1 Repowering and also cumulatively with other windfarms, will not have any significant impact upon amenity of existing sensitive receptors within East Lothian. It would be beneficial if Noise Sensitive Receptors are identified by the Local Authority in which they are located within the Tables provided within the EIA in addition to the names of the properties and their co-ordinates. However, this has not been done.'*

They further note that a CEMP should identify any mitigation measures considered necessary to minimise impacts during construction due to noise, vibration and dust upon amenity of noise sensitive receptors.

CONTAMINATED LAND

The **Council's Senior Environmental Compliance Officer** has no comment to make on the proposed development with particular regard to Chapter 9 (Geology, Hydrology & Geohydrology) of the EIAR.

LAND USE, ACCESS & RECREATION

The EIAR provides an assessment of the potential impacts of the proposed development on the hydrological, geological, and hydrogeological environment (Chapter 9), including peat. However, this assessment primarily focuses on the potential impacts arising from construction and operational works within the proposed turbine area.

The proposed turbine area lies within SBC and is predominantly open heather moorland. The proposed access area, located within ELC, comprises existing access tracks and surrounding agricultural land. The red line boundary along the proposed access area indicates a buffer of varying distances around the existing access track, a temporary construction compound, and the proposed turbine area. This land-take equates to approximately 81ha of prime agricultural land (2ha of class 1 and 79 ha of class 3.1), 44ha of class 3.2 and the remaining 766ha classes 4 to 6. While the Council acknowledges that it is unlikely all land within the red line boundary will be required to facilitate the proposed access route, no details have been provided to confirm whether there would be any loss of agricultural land, road verge, or vegetation to facilitate delivery and construction of the proposed development. Due to the lack of information regarding potential land-use impacts associated with the proposed access area, the Council is unable to determine whether these impacts would be significant.

With regard to public access, this is not assessed within the EIAR. The Design and Access Statement ("DAS") notes that existing tracks within the area are used for recreation and commits to providing alternative access during construction and maintaining access post-construction. The **Council's Access Officer** advises that further information should be obtained on which paths and tracks may be affected and how public safety will be managed. There has already been significant disruption to public access along the route from Innerwick, including new fences and gates that have made access to tracks and fields more difficult. The Access Officer therefore recommends that this information be secured by condition, requiring a Public Access Management Plan ("PAMP"). The PAMP should identify all paths and tracks that may be used or crossed during construction and operation and set out how public access will be managed in these areas, including any proposed diversions. It should also include a programme of works indicating the duration of any closures or diversions and recognise Scotland's statutory right of responsible access, acknowledging that people may walk across open moorland beyond defined paths.

FLOOD RISK AND THE WATER ENVIRONMENT

Consultation was undertaken with the **Council's Flood Protection Technician**, who advised that, as the site lies within the Scottish Borders Council boundary, comments on flood risk should be provided by Scottish Borders Council's Flood and Coastal Management Team. Accordingly, they have no further comments on the EIAR in relation to flood risk.

This application affects East Lothian Council only in terms of the access road to and from the site. Following their review of the EIAR, they note that Volume 2 includes a Hydrology Overview (Figure 9.1) and an appendix on watercourse crossings (Appendix 9.1). While they do not object to the information provided, they consider that further details are required on hydrology, including:

- the formation of any newly formed hard surfaces such as access roads should be attenuated to at least existing Greenfield runoff rates so that there is no increased effect on downstream receptors. Likewise, any discharges from SUDS and other drainage should be kept to existing Greenfield runoff rates;
- if there are to be any culverts, watercourse crossings or alterations to crossings, these must not reduce the flow conveyance of the watercourse; and
- details of the silt traps and any other functions that the applicant proposes to minimise the amount of sediment entering the water course should be submitted.

The Council's Flood Protection Technician has advised that these requirements can be addressed through conditions, which are recommended at the end of this report.

BIODIVERSITY

NPF4 policy 3 applies to all developments and requires that an overall biodiversity net gain is achieved, in order to address the nature crisis across Scotland. The policy intention is to '*...protect biodiversity, reverse biodiversity loss, deliver positive effects from development and strengthen nature networks.*'

The proposal is supported by an Outline Biodiversity and Ecological Management Plan ("oBEMP"), which compiles recommendations from the EIA Report based on pre-submission surveys for the proposed development. This aligns with scoping responses from NatureScot and ELC, both of which advised that a draft or outline Habitat Management Plan ("HMP") should be prepared in accordance with NatureScot (2016) guidance to mitigate the loss of key habitats.

However, the **Council's Biodiversity Officer** has commented that the oBEMP does not acknowledge any areas within the red line boundary that fall within East Lothian. There is no reference to habitats or enhancements along the access route or public roads from the A1 to the windfarm site. While the oBEMP is a working document and subject to refinement through consultation and conditions, it is currently inadequate in relation to East Lothian.

Consequently, the Council's Biodiversity Officer advises that, due to the lack of clarity on proposed or intended enhancements for the access route, the development is contrary to NPF4 policy 3 in respect of East Lothian. On this basis, the Council **objects** to the proposal on **biodiversity** grounds.

The Council's Biodiversity Officer further highlights several omissions from the EIAR including:

- *'Up to date ecological surveys for the entire route are required and should not be restricted to the Pinch Points identified in Fig 7.1.*
- *Up to date tree survey of entire route is missing. This has been repeatedly requested for the Crystal Rig 4 ongoing works on the route through East Lothian and has as yet not been provided by the CR4 team to ELC for appraisal. It is critical that a survey of all the trees and hedgerows, habitats and has been carried out prior to commencement. European Protected Species must be surveyed prior to determination, and I do not find the 2024 data to be sufficient to determine in this case due to the huge and ongoing impact of the Crystal Rig 4 development.*

- *Appendix 4.1 The Outline Construction Environmental Management Plan provided does not specifically mention the access route within the East Lothian Council boundary and I would recommend that specific consideration is made regarding the mitigations that are involved in the access route as they have specifically different considerations compared to the Wind Farm Area.'*

ELLDP Policy NH5 (Biodiversity and Geodiversity Interests including Nationally Protected Species) highlights that developers must demonstrate how impacts on biodiversity and geodiversity have been addressed as part of their proposal with sufficient supporting information being submitted. The EIAR presents extensive information on the application based on surveys and considerations for previous Crystal Rig developments however, very little is presented for the proposed access area which is entirely within East Lothian. A few examples are detailed below:

- Figure 7.1 details the survey areas and locations for the EIA, showing the bat roosts surveys, badger surveys and Phase 1 and otter surveys around the pinch point areas. The entire route from the A1 to the wind farm area should have been surveyed.
- Figures 7.4a and 7.4 a,b,c,d show the Phase 1 results and NVC classifications for the WFA. No results shown for the access route.
- Figure 7.6b does detail the presence of several European Protected Species on the route. This data is from 2024. This is not up to date and would require a further survey of these features prior to commencement to allow for the appropriate Species Protection Plans to be in place regarding the route.
- Figure 7.8 details outline enhancement areas within the WFA. No enhancements are presented for the access route from the A1 to the WFA.
- Figure 8.4 Curlew territory 2022, more up to date surveys should have been presented.
- Figure 8.5 Lapwing, Curlew and Greylag Goose territories shown in 2023. More up to date surveys should have been provided for consideration.

The Council's Biodiversity Officer states that there is insufficient evidence supplied to make an informed consideration against Policy NH5 and as such the Council **objects** to the proposal on **biodiversity** grounds.

LANDSCAPE AND VISUAL IMPACT

The **Council's Senior Landscape Project Officer** has provided comments on the application, and the full response is appended to this report (Annex A). They have concluded three points of objection within their response which are summarised below:

- 1) Excessive scale and height
 - The proposed turbines are overly large for the Lammermuir Hills' character, even with suggested reductions; and
 - The current design would dominate the landscape and create a significant visual contrast with existing schemes.
- 2) Aviation lighting impact
 - The proposed development would double the number of visible aviation lights in the area; and
 - Opportunities to reduce lighting impacts have not been explored.
- 3) Lack of access route assessment
 - No assessment has been carried out on the impacts to the access route through East Lothian.

For the three reasons outlined above, and detailed further within Annex A, the Council formally **objects** to the proposed development on the grounds of **Landscape and Visual Impact**.

HISTORIC ENVIRONMENT

The **Council's Archaeology/Heritage Officer** was consulted on the proposal, and they have highlighted two main areas of concern: the omission of any assessment within the EIAR of potential impacts of the access route on the historic environment and inadequate assessment on the setting impacts upon Traprain Law.

With regards to the access area, they state that 'In terms of the Historic Environment there has been no assessment of the access route from the A1 junction at Innerwick undertaken. It is simply stated in the EIA that access will be on the public roads and that any changes or alterations to the access corridor are currently unknown. This does not allow a proper assessment of any potential impacts to be undertaken.

The road network along the proposed route contains a number of 90deg corners, is very narrow in places and is largely lined with mature trees and hedges which significantly contribute to the historic character of this area. The route runs along the edge of the locally designed landscape of Thurston. Previous archaeological investigations in relation to the Neart na Gaoithe cable route uncovered significant archaeological remains in the immediate area, many of which extend towards the current public roads. The areas investigated by these investigations run parallel to the public roads which form the access route, and in places they are adjacent to it. An assessment of the potential heritage impacts along the access route from the A1 was excluded from the Heritage chapter.

The experience from previous windfarms suggests that the public road network in this area is not suitable for the transportation of large (the term used in the traffic assessment chapter is indivisible) loads without alterations to the road corridor (up to and including creating temporary routes). There appears not to be any mapping of potential alterations to the road corridor included in the submitted documents. The potential alterations will need to be mapped and an assessment of potential impacts upon the Historic Environment undertaken, this would allow a determination as to what mitigation might be necessary and what form it should take.'

The Council's Archaeology/Heritage Officer has advised that they cannot assess the potential impacts on the historic environment arising from the proposed access route until further information is provided. Accordingly, they **object** to the proposed access element of the application in relation to **Historic Environment**.

The Council's Archaeology/Heritage Officer also highlights concerns regarding the increased indirect impact on the setting of Traprain Law, a scheduled monument (SM 755), arising from the proposed larger turbines. Their comments are provided below:

'One of the key functions of Traprain Law was the 360deg visibility from the summit and although the preexisting turbines are visible, generally as blade tips or far distant hubs, they are not seen as the towards the front (from the East Lothian side) of the hills. Due to the increased height the proposed turbines and will be much more prominent and appear to be towards the front of the ridgeline. The Newlands Hill proposals will also be seen towards the front of the hills from Traprain and cumulatively these two proposals will have a significant impact upon the setting of Traprain Law, this cumulative impact was not assessed in the EIA chapter which is a significant oversight. In terms of the current proposals turbines 1 and 3, will be seen as stacked which increases the visual impact; turbines 5, 10

and 4 are tightly clustered which again increases the visual impact and turbines 7, 9 and 8 are again clustered which increases the visual impact of them; turbines 8 and 2 only the tips will be visible above the horizon. Although they will be seen amongst other turbines their increased height will mean that they are far more visible on the horizon and I would advise that these turbines are reduced in height or set further back. The EIA chapter assessed this impact as a negligible adverse impact (para 6.7.65) we would disagree with this assessment as the majority of the proposed turbines will be seen as being towards the front of the viewpoint (as shown in Fig 6.14) and along with the proposed Newlands Hill windfarm the cumulative impact will be much more prominent than the preexisting turbines which appear set back in the hills. This is considered a significant change from the baseline and I think has been considerably under assessed in the EIA, and in terms of the cumulative impact not assessed.'

Consequently, the Council's Archaeology/Heritage Officer has advised that the assessment of the setting impact upon Traprain Law is inadequate in that it under assesses the impact from the proposal itself and does not assess the cumulative impact in conjunction with other known windfarm schemes. Accordingly, they **object** to the proposed development in relation to **Historic Environment**.

TRANSPORTATION

The **Council's Road Services** were also consulted on the proposal, and the full response is appended to this report (Annex B). They have highlighted various concerns regarding the proposed access route, most notably that the Developer has not demonstrated that the public access road arrangements are either practical or achievable to accommodate the delivery of 80m blades. Accordingly, they **object** to the proposed development in relation to **Transportation**.

CUMULATIVE EFFECTS

Under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, the assessment of in-combination and intra-project cumulative effects is a key requirement of the EIA process. Intra-project cumulative effects are addressed within each technical chapter. However, in-combination cumulative effects have not been assessed as part of the EIAR.

The Council highlights concerns that neither intra-project nor in-combination cumulative effects have been adequately assessed within the proposed access area in relation to the construction of the proposed development. Given the insufficient assessment of the proposed access area, as highlighted by technical disciplines within this report, the Council has significant concerns regarding the potential cumulative impacts along this area. In light of the substantial ongoing and future energy developments, including construction, operation, and decommissioning, the Council considers the omission of a cumulative effect assessment, both intra-project and in-combination, for the proposed access route to be a notable omission and as such **objects** on this basis.

EIA ISSUES

East Lothian Council recognises the importance of aligning with national policy objectives and supporting Scotland's transition to clean energy. Accordingly, the principle of the proposal, situated within an established cluster of wind turbines, is considered logical and broadly acceptable. However, the Council remains concerned about the cumulative and ongoing impacts associated with the construction access route to the Crystal Rig complex. These impacts, which have already manifested and are likely to persist, may arise not only from the proposed development but also from potential future schemes, and therefore warrant careful consideration, assessment, and mitigation.

In accordance with Schedule 4 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, the EIAR must include a comprehensive description of factors and the likely significant effects of the development. This requirement explicitly encompasses *“any direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development.”*

Although the proposed access route is described as a temporary component, it is essential to acknowledge the ongoing impacts resulting from the construction of Crystal Rig 4 and the potential for further Crystal Rig developments. The Council’s position is that, despite its temporary status, the access route functions as a long-term feature within this part of East Lothian and must therefore be assessed thoroughly and proportionately within the EIA process.

As highlighted by several technical disciplines in this report, the proposed access area has not been subject to adequate assessment, if any, leaving the extent of potential significant impacts unknown. This omission represents a serious oversight in the current EIAR. While it may be argued that the route is already in use for construction traffic, evidence from past and ongoing experience demonstrates that it is experiencing detrimental effects. Any additional construction traffic, particularly involving larger vehicles and abnormal loads as a result of larger wind turbines, could exacerbate these impacts.

Whilst the EIAR acknowledges the requirement for a CEMP and a Construction Traffic Management Plan (“CTMP”) prior to the commencement of construction, in this particular circumstance, the Council considers this insufficient. An assessment of the proposed access area should be included at this stage to confirm the deliverability of the proposals and to evaluate the potential significant impacts of construction on environmental constraints, along with the mitigation measures proposed. As an example, the DAS within the EIAR notes that where existing tracks do not meet engineering requirements for transporting blades of up to 81m in length, widening may be necessary. These details should be provided within the EIAR to ensure that adequate assessment and mitigation are in place.

Overall, it is imperative that the EIA addresses the potential effects of the proposed access area on key environmental receptors, including transport infrastructure, biodiversity, land and soil, water resources, cultural heritage, and landscape character. This assessment is critical to ensure that significant impacts are identified, quantified, and appropriately mitigated in accordance with statutory requirements and best practice. Due to the absence of the assessment of potential impacts on the proposed access area, the Council **objects** to the proposal.

CONCLUSION

While the proposed development would contribute to Scotland’s decarbonisation objectives and align with national policy, the Council has concerns regarding potential significant construction impacts along the proposed access area. Whilst the principle of development is accepted, based on the assessment against other policy considerations, the Council **objects** to the proposal on the following matters:

- due to the lack of clarity on proposed or intended enhancements for the access route, the development is contrary to NPF4 policy 3 in respect of East Lothian;
- there is insufficient biodiversity evidence supplied to make an informed consideration against Policy NH5;
- the proposed turbines are overly large for the Lammermuir Hills’ character, even with suggested reductions, the current design would dominate the landscape and create a significant visual contrast with existing schemes.

- the proposed development would double the number of visible aviation lights in the area;
- no assessment has been carried out on the landscape impacts to the access route through East Lothian;
- inability to assess the potential impacts on the historic environment arising from the proposed access route;
- the assessment of the setting impact upon Traprain Law is inadequate in that it under assesses the impact from the proposal itself and does not assess the cumulative impact in conjunction with other known windfarm schemes;
- it has not demonstrated that the public access road arrangements are either practical or achievable to accommodate the delivery of 80m blades; and
- omission of a cumulative effect assessment, both intra-project and in-combination, for the proposed access route.

The Council recommends that the applicant is offered the opportunity to amend their proposal and to submit further information in order to seek to overcome the Council's objections above. It is further recommended that the Council should be reconsulted on any amended proposals and further information.

It should be noted that if these objections are not resolved then the application would likely have to go through an inquiry process.

Were the ECU to decide to grant consent, then the Council recommends that this should be subject to conditions, and that these conditions are agreed in advance by the Council.

RECOMMENDATIONS

1. That the Scottish Government Energy Consents Unit is informed that East Lothian Council objects to the granting of consent under Section 36 of the Electricity Act 1989 for the reasons set out in this report;
2. That East Lothians Chief Planning Officer be authorised to undertake any discussions with the Scottish Government Energy Consents Unit to seek to resolve these objections and conditions to be attached to the consent if required; and
3. That if consent is granted then it be subject to conditions to be agreed with East Lothian Council's Chief Planning Officer.

RECOMMENDED CONDITIONS

The following sets out a list of recommended conditions for the proposed development. However, it excludes conditions relating to **Landscape and Visual Impact, Transportation, Biodiversity** and **Historic Environment**. Due to the objections raised by the Council and the current lack of sufficient supporting information, we are unable to recommend appropriate conditions for these technical disciplines at this stage.

Commencement of Development

- 1 The development hereby approved shall begin before the expiration of 3 years from the date of this permission.

Reason: To ensure that the development is commenced within a reasonable period.

Carbon Emissions

- 2 Prior to the commencement of any development a report on the actions to be taken to reduce the Carbon Emissions from the completed development shall be submitted to and approved in writing by the Planning Authority. This shall include the provision of renewable technology for all new buildings including the consideration of any opportunities for heat recovery systems, where feasible and appropriate in design terms. The details shall include a timetable for implementation.

Development shall thereafter be carried out in accordance with the report so approved.

Reason: To minimise the environmental impact of the development.

Water and Flood Risk Management

- 3 No development shall commence until detailed information has been submitted to and approved in writing by the Planning Authorities demonstrating compliance with the following requirements:
- 1) The formation of any new hard surfaces, including access roads, shall be designed to attenuate runoff to at least existing greenfield rates, ensuring no increased impact on downstream receptors. Similarly, any discharges from SUDS or other drainage systems shall be limited to existing Greenfield runoff rates.
 - 2) Any culverts, watercourse crossings, or alterations to existing crossings must not reduce the flow conveyance capacity of the watercourse.
 - 3) Full details of silt traps and any other proposed measures to minimise sediment entering watercourses shall be submitted for approval.

Reason: To ensure existing greenfield run-off rates are maintained, minimise impact on the water environment and to ensure that flood risk is ameliorated.

Noise

- 4 The rating level of noise emissions from the combined effects of the wind turbines forming part of the Development (including the application of any tonal penalty) shall not exceed the values for the relevant integer wind speed set out in, or derived from, the tables attached to this condition at any dwelling which is lawfully existing or has planning permission at the date of this consent. The turbines shall be designed to permit individually controlled operation or shut down at specified wind speeds and directions in order to facilitate compliance with noise criteria and:
- 1) The Company shall continuously log power production, wind speed and wind direction. These data shall be retained for a period of not less than 24 months. The Company shall provide this information to the Planning Authority within 14 days of receipt in writing of a request to do so.
 - 2) There shall be no First Commissioning of the Development until the Company has received written approval from the Planning Authority of a list of proposed independent consultants who may undertake compliance measurements in accordance with this condition. Amendments to the list of approved consultants shall be made only with the prior written approval of the Planning Authority.

- 3) Within 21 days from receipt of a written request from the Planning Authority following a complaint to it from an occupant of a dwelling alleging noise disturbance at that dwelling, the Company shall, at its expense, employ a consultant approved by the Planning Authority to assess the level of noise emissions from the wind farm at the complainant's property. The written request from the Planning Authority shall set out at least the date, time and location to which the complaint relates and any identified atmospheric conditions, including wind direction, and include a statement as to whether, in the opinion of the 18 This section will only be relevant in circumstances where updated landslide assessment is required prior to commencement of development. Planning Authority, the noise giving rise to the complaint contains or is likely to contain a tonal component.
- 4) The assessment of the rating level of noise emissions shall be undertaken in accordance with an assessment protocol that shall previously have been submitted to and approved in writing by the Planning Authority. The protocol shall include the proposed measurement location(s) where measurements for compliance checking purposes shall be undertaken, whether noise giving rise to the complaint contains or is likely to contain a tonal component, and also the range of meteorological and operational conditions (which shall include the range of wind speeds, wind directions, power generation and times of day) to determine the assessment of rating level of noise emissions. The proposed range of conditions shall be those which prevailed during times when the complainant alleges there was disturbance due to noise, having regard to the written request of the Planning Authority under paragraph 17c, and such others as the independent consultant considers likely to result in a breach of the noise limits.
- 5) Where the property to which a complaint is related is not listed in the tables attached to this condition, the Company shall submit to the Planning Authority for written approval proposed noise limits selected from those listed in the tables to be adopted at the complainant's property for compliance checking purposes. The proposed noise limits are to be those limits selected from the tables specified for a listed location which the independent consultant considers as being likely to experience the most similar background noise environment to that experienced at the complainant's property. The rating level of noise emissions resulting from the combined effects of the wind turbines shall not exceed the noise limits approved in writing by the Planning Authority for the complainant's property.
- 6) The Company shall provide to the Planning Authority the independent consultant's assessment of the rating level of noise emissions within 2 months of the date of the written request of the Planning Authority for compliance measurements to be made under paragraph e, unless the time limit is extended in writing by the Planning Authority. Certificates of calibration of the instrumentation used to undertake the measurements shall be submitted to the Planning Authority with the independent consultant's assessment of the rating level of noise emissions.
- 7) Where a further assessment of the rating level of noise emissions from the wind farm is required, the Company shall submit a copy of the further assessment within 21 days of submission of the independent consultant's assessment pursuant to paragraph (4) above unless the time limit has been extended in writing by the Planning Authority.

Table 1 – Between 07:00 and 23:00 – Noise limits expressed in dB LA90,10 minute as a function of the standardised wind speed (m/s) at 10 metre height as determined within the site averaged over 10-minute periods.

Location	Standardised 10 m Height Wind Speed (ms ⁻¹)									
	3	4	5	6	7	8	9	10	11	12
R1	35	35	36	39	42	46	49	52	54	56
R2	35	35	35	35	36	38	40	42	44	46
R3	35	35	37	40	43	46	49	51	51	50
R4	35	35	37	40	43	46	49	51	51	50
R5	35	35	37	40	43	46	49	51	51	50
R6	35	35	36	39	42	46	49	52	54	56
R7	35	35	37	40	43	46	49	51	51	50
R8	35	35	36	39	42	46	49	52	54	56
R9	35	35	35	39	42	46	49	52	54	56
R10	35	35	35	36	38	40	43	45	46	47
R11	35	35	35	40	43	45	48	51	53	55
R12	35	35	35	36	38	40	43	45	46	47
R13	35	35	35	40	43	46	49	51	51	50
R14	35	35	35	36	38	40	43	45	46	47

Table 2 – Between 23:00 and 07:00 – Noise limits expressed in dB LA90,10-minute as a function of the standardised wind speed (m/s) at 10 metre height as determined within the site averaged over 10-minute periods.

Location	Standardised 10 m Height Wind Speed (ms ⁻¹)									
	3	4	5	6	7	8	9	10	11	12
R1	43	43	43	43	43	43	47	51	55	58
R2	43	43	43	43	43	43	43	43	43	43
R3	43	43	43	43	43	44	48	51	52	53
R4	43	43	43	43	43	44	48	51	52	53
R5	43	43	43	43	43	44	48	51	52	53
R6	43	43	43	43	43	43	47	51	55	58
R7	43	43	43	43	43	44	48	51	52	53
R8	43	43	43	43	43	43	47	51	55	58
R9	43	43	43	43	43	43	47	51	55	58
R10	43	43	43	43	43	43	43	44	45	46
R11	43	43	43	43	43	44	44	48	47	43
R12	43	43	43	43	43	43	43	44	45	46
R13	43	43	43	43	43	44	44	51	52	53
R14	43	43	43	43	43	43	43	44	45	46

Reason: to protect nearby residents from undue noise and disturbance. To ensure that noise limits are not exceeded and to enable prompt investigation of complaints.

Planning Monitoring Officer

- 5 (1) There shall be no Commencement of Development unless and until the Planning Authorities have approved in writing the terms of appointment by the Company of an independent and suitably qualified environmental consultant as a Planning Monitoring Officer (PMO) to assist the Planning Authorities' in the monitoring of compliance with conditions attached to this deemed planning permission during the period from Commencement of Development to completion of post-construction restoration works.
- (2) The terms of appointment shall:
- (a) impose a duty to monitor compliance with the terms of the deemed planning permission and the conditions attached to it;
 - (b) require the PMO to submit a monthly report to the Planning Authority summarising works undertaken on site; and
 - (c) require the PMO to report to the Planning Authority any incidences of non-compliance with the terms of the deemed planning permission and conditions attached to it at the earliest practical opportunity.

Reason: To enable the Development to be suitably monitored to ensure compliance with the consent and deemed planning permission.

Redundant turbines

- 6 (1) If one or more turbine fails to generate electricity for a continuous period of 12 months (excluding any periods of constraint imposed by the National Grid during which turbines are not operating), then unless otherwise agreed in writing by the Planning Authorities, the Company shall submit a scheme to the Planning Authority for its approval setting out how the relevant turbine(s) and associated infrastructure will be removed from the site and the ground restored thereafter.
- (2) The Company shall implement the scheme as approved in writing by the Planning Authorities within six months of the date of its approval, all to the satisfaction of the Planning Authorities.

Reason: to ensure that any redundant wind turbine is removed from the site, in the interests of safety, amenity and environmental protection.

Decommissioning, Restoration and Aftercare

- 7 There shall be no Commencement of Development until an Interim Decommissioning, Restoration and Aftercare Strategy has been submitted to, and approved in writing by, the Planning Authorities in consultation with SEPA. The Interim Decommissioning, Restoration and Aftercare Strategy shall outline measures for the decommissioning of the Development and restoration and aftercare of the site, and shall provide proposals for the removal of the Development, the treatment of ground surfaces, the management and timing of the works and environmental management provisions in any instance that the site as a whole, or in part, ceases to operate prior to the approval of the Detailed Decommissioning, Restoration and Aftercare Plan.

Reason: To ensure the decommissioning and removal of the Development in an appropriate and environmentally acceptable manner and the restoration and aftercare of the site, in the

interests of safety, amenity and environmental protection when a detailed decommissioning, restoration and aftercare Plan has not yet been approved.

- 8 (1) The Development shall cease to generate electricity to the grid network by no later than the date falling 35 years from the Date of Final Commissioning.
- (2) Unless the Development has been deemed to be redundant, no later than one year prior to the Date of Final Generation or the expiry of the section 36 consent (whichever is earlier) a Detailed Decommissioning, Restoration and Aftercare Plan shall be submitted for the written approval of the Planning Authorities.
- (3) If the Development has been deemed to be redundant, no later than twelve months from the Date of Final Generation, a detailed Decommissioning, Restoration and Aftercare Plan shall be submitted for the written approval of the Planning Authorities.
- (4) The Detailed Decommissioning, Restoration and Aftercare Plan shall provide updated and detailed proposals, in accordance with relevant guidance at that time, for the removal of the Development, the treatment of ground surfaces, the management and timing of the works and environment management provisions which shall provide:
- a) a site waste management plan (dealing with all aspects of waste produced during the decommissioning, restoration and aftercare phases and, including details of measures to be taken to minimise waste associated with the Development and promote the recycling of materials and infrastructure components);
 - b) details of the formation of the construction compound, welfare facilities, any areas of hardstanding, turning areas, internal access tracks, car parking, material stockpiles, oil storage, lighting columns, and any construction compound boundary fencing;
 - c) a dust management plan;
 - d) details of measures to be taken to prevent loose or deleterious material being deposited on the local road network, including wheel cleaning and lorry sheeting facilities, and measures to clean the site entrances and the adjacent local road network;
 - e) a pollution prevention and control method statement, including arrangements for the storage and management of oil and fuel on the site;
 - f) details of measures for soil storage and management;
 - g) a surface water and groundwater management and treatment plan, including details of the separation of clean and dirty water drains, and location of settlement lagoons for silt laden water;
 - h) details of measures for sewage disposal and treatment;
 - i) temporary site illumination;
 - j) the construction of any temporary access into the site and the creation and maintenance of associated visibility splays; and
 - k) a species protection plan based on surveys for protected species (including birds) carried out no longer than eighteen months prior to submission of the plan.
- (5) The Development shall be decommissioned, the site restored, and aftercare undertaken prior to the date falling three years after the Date of Final Generation and in accordance with the approved detailed decommissioning, restoration and aftercare plan.

Reason: To ensure the decommissioning and removal of the Development in an appropriate and environmentally acceptable manner and the restoration and aftercare of the site, in the interests of safety, amenity and environmental protection.

Financial Guarantee

9 (1) No development shall commence unless and until the Company has delivered a bond or other form of financial guarantee in terms reasonably acceptable to the Planning Authorities which secures the cost of performance of all decommissioning, restoration and aftercare obligations are submitted to the Planning Authority. The value of the financial guarantee shall be agreed between the Company and the Planning Authorities or, failing agreement, determined (on application by either party) by a suitably qualified independent professional as being sufficient to meet the costs of all decommissioning, restoration and aftercare obligations.

(2) The financial guarantee shall be maintained in favour of the Planning Authorities until the date of completion of all decommissioning, restoration and aftercare obligations.

(3) The value of the bond or financial guarantee shall be determined by a suitably qualified independent professional as being sufficient to meet the costs of all decommissioning, restoration and aftercare obligations contained in the decommissioning, restoration and aftercare method statement.

(4) The value of the financial guarantee shall be reviewed by agreement between the Company and the Planning Authorities or, failing agreement, determined (on application by either party) by a suitably qualified independent professional no less than every five years and increased or decreased to take account of any variation in costs of compliance with decommissioning, restoration and aftercare obligations and best practice prevailing at the time of each review.

Reason: To ensure that there are sufficient funds to secure performance of the decommissioning, restoration and aftercare conditions attached to this deemed planning permission in the event of default by the Company.

Public Access Management Plan

10 (1) Prior to the commencement of development a Public Access Management Plan shall be submitted to and approved in writing by the Planning Authorities. The Public Access Management Plan shall include the following details:

- (a) any temporary closures and diversions to rights of way and public access during construction, their duration and any proposed signage;
- (b) proposals to restore any existing rights of way and public access to their previous condition between construction and decommissioning and once full decommissioning has taken place; and
- (c) proposals to enhance public access within and adjacent to the site during the lifetime of the development.

(2) Thereafter, the Public Access Management Plan shall be implemented and complied with in accordance with the approved details, unless otherwise approved in writing by the Planning Authorities.

Reason: To ensure the safe continuation of public access and amenity.

ECU Application No. ECU00005089

ELC Reference No. 25/00005/SGC

Proposal Electricity Act 1989 – Application for construction and operation of a repower of Crystal Rig I wind farm. Consisting of up to 10 wind turbines including six turbines with a maximum overall height (to blade tip) of up to 230 m and the remaining four turbines with a maximum overall height (to blade tip) of up to 200 m

Location Crystal Rig 1 Wind Farm, approximately 10km South of Dunbar and approximately 40km East of Edinburgh, within the Lammermuir Hills

Applicant Fred Olsen Renewables
Ltd Per Emily Galloway
Ochil House
Springkerse Business Park
Stirling
FK7 7XE

Ward 06 Dunbar and East Linton

Date 18 December 2025

Sent via email to

econsents_Admin@gov.scot

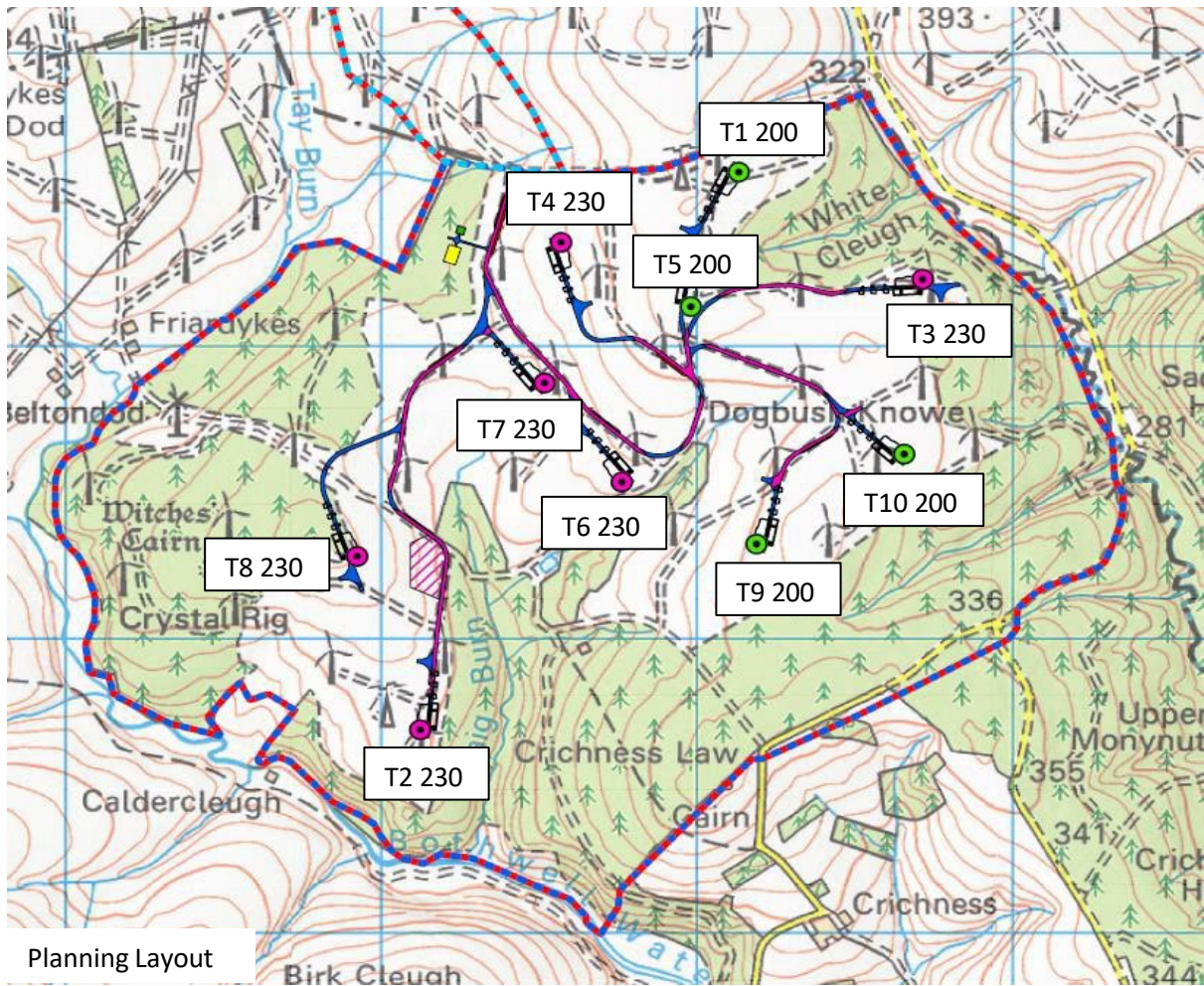
Cc Kevin Ainslie Kevin.Ainslie@gov.scot

ANNEX A – LANDSCAPE COMMENTS

DESCRIPTION OF PORPOSAL

This is an application for the repowering of the existing Crystal Rig Wind Farm (referred to in this report as CRIR). It includes for decommissioning of the existing 25no. existing 100m high wind turbines and construction of 10no. new wind turbines including six turbines with a hub height of 149m and maximum overall height (to blade tip) of up to 230 m and four turbines with a hub height of 119m and maximum overall height (to blade tip) of up to 200 m. All proposed turbines are to have a rotor diameter of 162m and blade length of 81m. Visible aviation lighting will also be required

The site lies within the Scottish Borders Council local authority area immediately to the SE boundary of East Lothian.



All site access will be by minor roads through East Lothian from the Innerwick junction from the A1 to the northeast of the site.

Table of proposed turbines sorted highest to lowest

ID	Easting	Northing	Altitude	Tip height	AOD to tip	Hub Height	AOD to hub	Visible aviation lights
3	368714	668229	347	230	577	149	496	No
4	367569	668355	338	230	568	149	487	No
1	368132	668595	365	200	565	119	484	Yes
5	367980	668136	365	200	565	119	484	No
8	366923	667283	329	230	559	149	478	No
6	367761	667537	325	230	555	149	474	No
10	368655	667632	354	200	554	119	473	Yes
9	368188	667325	351	200	551	119	470	No
7	367516	667875	320	230	550	149	469	Yes
2	367122	666691	303	230	533	149	452	Yes

LVIA

A full LVIA has been submitted for assessment of the proposed development. It only includes assessment of the turbines and does not include an assessment of impacts on access route.

The LVIA accords with the GLVIA.

DESCRIPTION OF SITE

The site lies within a landscape characterised by rolling plateau of hill tops. There are limited peaks. Spartleton being one of these at 468m to peak, is located to the southwest of the site forming the backdrop to the Whiteadder Reservoir.

The generally low-lying area of Dunbar Common, forming a slightly lower-lying bowl-like area within the Lammermuirs is an established area for wind farm. The landform offers opportunity to reduce the impact of the turbines in wider views both across the plateau of the Lammermuirs and from the East Lothian agricultural plain to the north.

Crystal Rig 1 was the first wind farm development within this area. Operational since 2004 it is now nearing the end of its operational life.

There is established landscape pattern of wind farm within this area such that the landscape area immediately adjacent to the site in East Lothian has been characterised as Upland with Wind Farm.

DEVELOPMENT DISCUSSION

The cumulative ZTVs indicate that the proposed turbines will introduce very little new visibility of turbines from this cluster area into the lowland plain to the north. In addition the location of the turbines within an established windfarm area retains the existing pattern of cluster and space along the Lammermuir skyline.

The cumulative ZTVs also indicate very limited extension of turbine visibility into the Whiteadder Reservoir valley.

LANDSCAPE CHARACTER

The LVIA notes at 5.10.2 that effects on landscape character can arise off-site, where visibility of the Proposed Development may alter the way in which this pattern of elements is perceived. However the LVIA has only assessed the effects on the following Landscape Character Areas (LCA) and Special Landscape Areas (SLA) in East Lothian, with three of these only assessed for night time effects:

- Lammermuir Plateau (ELC LCA);
- Lammermuir Plateau with Windfarm (ELC LCA);
- Halls to Bransly Hill SLA (ELC SLA no 6) (night-time only); and
- Monynut to Blackcastle SLA (ELC SLA no 4) (night-time only); and
- Whiteadder SLA (ELC SLA no 2) (night-time only).

Lammermuir Plateau LCA

The LVIA defines this LCA as having a high-medium value, due to the whole area lying with various SLAs and its strong upland sense of place, and recreational value afforded by the network of paths and tracks.

The LVIA states that this is a large-scale landscape with simple landform and landscape patterns, ensuring that the influence of the Proposed Development will not lead to scale comparisons between the landscape and the turbines.

The susceptibility is also moderated by the direct influence of wind energy within the receptor as well as close-proximity external influence. These wind farms establish this type of development as part of the baseline character, ensuring that the Proposed Development will not add a new external influence to the character of the LCA. The combination of a medium-low susceptibility and high-medium value of the landscape results in a **medium** sensitivity for the Lammermuir Plateau LCA.

The LVIA notes that the magnitude of change afforded by the development differs depending on where you are in this large area. It does note that to the west and south-west the Lammermuir Plateau LCA directly abuts the Dissected Plateau Moorland LCT within which the Proposed Development lies, and here there is a more limited context of operational and under construction development (although Crystal Rig IV does lie between the Proposed Development and the receptor on this edge). This increased influence can be seen at Viewpoints 5, 11 and 30, where the Proposed Development will have a greater influence due to its level of visibility and contrast with baseline development. The LVIA suggests that this will be a medium magnitude of change for this area, higher than for other parts of the LCA.

It notes that the factors that contribute to this magnitude of change are:

- The relatively limited context of operational and under construction development means that the Proposed Development turbines will lead to a readily apparent increase in wind farm influence at reasonably close proximity, although they are not uncharacteristic in the view;
- The Proposed Development turbines will be larger than the operational and under construction turbines and this increases their influence; and
- The Proposed Development turbines will have a higher level of visibility than the baseline Crystal Rig I turbines due to their increased dimensions, resulting in a more apparent influence on landscape character.

It suggests that factors that restrict this magnitude of change to a maximum medium level are that this LCA is strongly characterised by external wind farm influence, including Crystal Rig I on the Site itself, ensuring that the Proposed Development will not introduce a new, unfamiliar influence on landscape character, but will integrate with the baseline character. Also that the Crystal Rig I turbines that form part of the baseline setting to this receptor provide a precedent for wind farm development on the Site, and this reduces the additional influence of the Proposed Development as it will not introduce a new influence on this specific part of the setting to the receptor. We agree with this.

We however disagree with the suggestion that this part of the receptor has large-scale, generally simple landform, ensuring that scale comparisons with the Proposed Development are unlikely to arise. The peak of Spartleton sits directly adjacent to the site within this LCA. The hubs of nine of the ten proposed turbines are higher than the peak of Spartleton. This will have a direct detrimental influence on the appreciation of this prominent landscape feature which will no longer appear as the high point of this part of the LCA.

Scale comparisons are further likely to be increased with the proposed development being seen in context with the Whiteadder Upland Valley SLA across this part of the Lammermuir

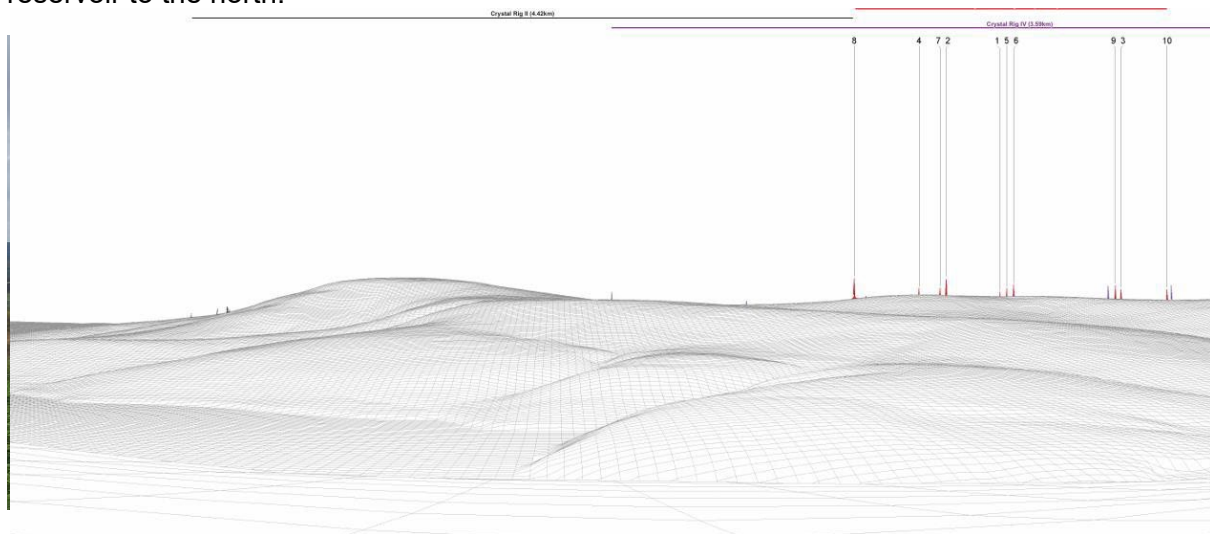
Plateau LCA. This is demonstrated most clearly in viewpoint 11.

We agree that there will be significant effects on this LCA from the proposed development but consider these to be significant over a wider area of the LCA than suggested in the LVIA.

Whiteadder SLA

We had concerns that the ZTV showed visibility of turbines within this SLA and the impact this may have on the setting of the Whiteadder Reservoir and Spartleton. The applicants submitted a wireline from the core path to the east of Priestlaw Hill.

The photograph below shows the direction of this view with Spartleton rising beyond the reservoir to the north.



The wireline clearly shows that the turbines, although visible in this view, do not intrude behind Spartleton and therefore do not impact on the setting of the reservoir. The wireline does however indicate the increased visibility of proposed turbines compared to the existing turbines in this view.

Agricultural Plain

The impact of the development from the Agricultural Plain LCAs in East Lothian has not been considered in the LVIA. There is a large area of the coastal plain LCA where the hubs as well as blades are visible well within the 20km study area to the south of North Berwick and across to Gullane beyond the 20km study boundary. The closest viewpoint to represent this is 17 (29 is within the area but is from the top of North Berwick Law and therefore not representative of views from the plain).

The Lammermuir skyline has long been identified as important to the natural beauty of East Lothian in providing a pencil sharp skyline and a simple and largely uncluttered backdrop for the agricultural plain, settlements and volcanic outcrops of East Lothian. At present the wind farms are spaced at intervals across the extensive skyline with the majority of the skyline retained as an unbroken element. It is important that any new wind farms retain this existing cluster and space layout across the skyline to retain this uncluttered backdrop to the plain. This proposal retains this with the repowering being proposed within the same geographical spread as the existing wind farm. What the proposal does do is increase the height of the turbines.

The East Lothian Local Development Plan (LDP) contains Appendix 2 – Cumulative Wind Turbine Issues. In the section on the Lammermuir Skyline it notes that windfarm development

on the skyline can be prominent and it has three design principles:

- firstly, the horizontal skyline should continue to appear as the dominant feature;
- secondly, wind development should continue to appear set back from the East Lothian edge of the Lammermuir Hills; and
- thirdly, physical and visual spacing between windfarms should be maintained.

The proposed development begins to erode the appearance of the wind turbines set back from the edge of the Lammermuir Hills and contained by the hills in views from the plains. This can be seen in viewpoint 17 where the turbines extend above the horizon so that the whole hubs, rotor diameter and some of the column are visible. This gives more of an appearance of the turbines sitting on the hills rather than being contained within them. This is particularly evident for turbines 1, 3, 4 and 8.

VIEWPOINTS

There are 17 viewpoints agreed for East Lothian. I have commented on those where there appears to be greatest impact from the proposal.

VP5 Moss Law

This viewpoint is from the B6355 as you head directly towards the Crystal Rig wind farm development on the road to the Whiteadder and Duns beyond. It is on the boundary between the Lammermuir Hills SLA and the Whiteadder SLA.

The LVIA states that it is included to represent views gained by people travelling eastwards on the B6355. It is also representative for hill walkers within this area of the plateau and other recreational users.

Although the proposed turbines are located within the existing spread of the Crystal Rig and Aikengall wind farms to the left of Spartleton in this view, their greater size will make them a dominant element within the view. The turbines greater height mean they dwarf the peak of Spartleton. This no longer appears as a feature peak in this view. Nine of the ten turbines have hubs higher than Spartleton and this is apparent in this view.

This does not accord with NatureScot's advice in Siting and Designing Wind Farms in the Landscape Version 3a where at 3.41 it states that wind farms interaction with the existing hierarchy of foci needs to be considered in their siting and design, in order to minimise visual conflicts or avoid compromising the value of existing foci. In addition at 3.32 it notes that a wind farm should be of minor size compared to other key features and foci within the landscape; or separated from these by a sufficiently large area of open space (either horizontally or vertically) so that direct scale comparison does not occur.

The proposal extends the spread of larger scale turbines across the view increasing their visibility and prominence. In addition although the number of turbines will be reduced overall the proposal introduces significant contrast in scale with the existing turbines. This could have the effect of causing visual confusion and clutter.

We agree with the LVIA that the effect of the proposed development on this view and users of the hills to the northwest of the Lammermuirs will be significant.

Night Time Effect

A night time photomontage has been produced for this viewpoint. This shows three lights visible from the under construction CRIV turbines. These are close to the horizon and relate to the landform.

All four of the lights on the proposed turbines would be visible in this view together with the

three from CRIV. The proposed lights appear as an almost horizontal line across the sky, roughly in line with the peak of Spartleton and on a level with the viewer such that lighting intensity will be up to full intensity. They greatly increase the spread of development visible at night time.

We believe that for the reasons given in the LVIA assessment that the magnitude of change will be greater than medium-low. Namely - The proposal leads to an increase in the visible number of lights in addition to those seen on Crystal Rig IV, an increase in the extent of the view that will be affected by turbine lighting, increased height above the skyline of the Proposed Development lights in relation to the Crystal Rig IV lights, and the appearance of the lights in the broad direction of travel.

VP8 Traprain

The view from Traprain as noted in the LVIA is panoramic and as such the view to the south along the Lammermuir skyline forms an important part of this view.

The existing turbines are contained by the hills with hubs, where visible, close to the horizon. The proposed turbines site much higher than the existing with hubs and rotor diameters visible for a number of turbines. The scheme also shows stacking of turbines 1 and 3, grouping of turbines 4, 5 and 10, and a separate group with 6, 7 and 9, with the wind farm appearing as three separate groups of turbines. The blades of turbine 8 and tip of turbine 2 increasing the spread across the hill slope to the west. This is an important viewpoint should be considered in design. It is not a changing or mobile view.

The proposed turbines intensify the effect of development with greater visibility and greater scale and height. It could be said that they appear as a major feature given their increased height, movement and stacking and lack of other structures of this size in this direct view. The LVIA appears to have under assessed the magnitude of change to this viewpoint by the proposals.

Night Time Effect

The proposal introduces lighting from three turbines into this view, raised above the horizon.

VP10 Minor Road to the south of Spott

This viewpoint shows the large contrast in scale between the existing turbines of Aikengall and the proposed turbines. The proposed turbines increase the intensity and emphasise the spread of windfarm across the skyline. There is no visibility of CRIV from here so this proposal also introduces night time lighting into an otherwise completely dark environment.

VP11 Killpallet

In this view, the proposed turbines form a line to the right of Spartleton. Similar to VP5, this viewpoint demonstrates how the height of the turbines—greater than Spartleton—results in the loss of Spartleton as a distinctive individual peak. This diminishes an important feature of the Whiteadder SLA and is not in accordance with NatureScot's advice in Siting and Designing Wind Farms in the Landscape Version 3a.

Key observations:

- Turbine 8 is the tallest and closest to Spartleton, overlapping with Turbine 4.
- The turbines become the sole focus of the view, creating a higher magnitude of change.
- The surrounding landscape near Whiteadder is upland farmland, which is smaller in scale compared to plateau uplands.

- The large scale of the turbines contrasts sharply with the farmed landscape, making them appear closer and more dominant.
- They are visually raised and prominent along the ridgeline south of Spartleton.

The impact of the turbines in this view is likely more significant than currently assessed.

VP13 Blackcastle Hill

Same magnitude of change as VP11. However this viewpoint views the proposed turbines through the existing turbines. This therefore does not appear to lead to as large a magnitude of change as the view from VP11 Killpallet.

VP15 St Baldred's Cradle

Large scale but clearly set within the hills. Aikengall already raised from here. It is 13.41km to the nearest turbine.

Turbine 4 appears higher than the others from this viewpoint. Turbine 8 appears as an outlier to the west.

VP16 Lammer Law

Turbines from here appear large and higher than the peak of Spartleton (468m to peak). The hub of the lowest turbine appears level with the top of Spartleton. Spartleton no longer appears as a major peak within the landscape. It loses its identity by no longer standing alone. The turbines of CRIV are visible extending up the hill slope of Spartleton. Although large they are of a smaller scale than the proposed turbines and do not reduce the impact of the feature of Spartleton to the same extent.

In addition the proposed turbines to the left in this view appear even large in scale as they read with the turbines of CRII and CRIII, at half the height and scale of the proposed turbines.

VP17 Dirleton A198

This viewpoint is located over 22 km from the nearest turbine, offering a wide panoramic view of the Lammermuir Hills, defined by the pencil-sharp profile and simple, largely uncluttered backdrop, which has long been recognised as important to the natural beauty of East Lothian.

The proposed development, while located within the same geographical spread as the existing wind farm, introduces significantly taller turbines. At this distance, the existing turbines appear low on the horizon and relatively small in scale. However, the proposed turbines increase both scale and visibility, altering the perception of the skyline. In this view, the hubs, rotor diameters, and even parts of the towers are visible above the horizon, creating the impression that the turbines are sitting on the hills rather than being contained within them. This effect is particularly noticeable for Turbines 1, 3, 4, and 8.

The proposed increase in turbine height begins to erode the principles of maintaining the horizontal skyline as the dominant feature and keeping turbines set back from the edge of the hills. The turbines extend above the skyline, reducing the dominance of the horizontal horizon and introducing a more cluttered appearance. This represents a notable change in character, even at 22 km distance, and suggests that the magnitude of change and cumulative impact may be greater than assessed in the LVIA.

While the LVIA concludes that the effect is not significant due to distance, this viewpoint demonstrates that the proposal visibly intensifies development along the skyline, diminishing its simplicity and the sense of containment that currently defines the Lammermuir Hills.

VP21 Barns Ness

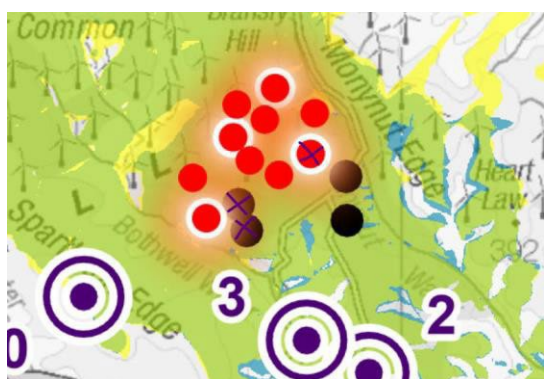
The proposed turbines sit beyond the turbines of Aikengall I and II in this view. This reduces their prominence in the daytime. Two hubs with visible aviation lighting (1 and 10) are visible from here and this will introduce lighting within the hills where there is none at the moment. This has the effect of introducing development in the hills into the night time view from the coast (and the Dunbar to Barns Ness Coast SLA). This viewpoint has not been included in the detailed assessment in the LVIA.

AVIATION LIGHTING

The applicant has agreed a reduced lighting scheme with the Civil Aviation Authority (CAA) whereby the 2000 candela visible aviation lights can be dimmed to 200 candela when visibility in **all** directions from all turbines is greater than 5km. This means that should visibility be less than 5km from any turbine all visible aviation lights will be at 2000cd. The number of turbines with visible aviation lighting has also reduced to four out of the total ten.

We asked at scoping stage that, should the CAA not agree to no visible aviation lighting, then a reduced lighting scheme in combination with the proposed lighting scheme at Crystal Rig IV to minimise night-time visual impact be considered. This has not been provided.

The proposals include the lighting scheme previously approved for CRIV together with a lighting scheme for CRIR. This appears to include lighting for turbines that do not form the cardinal points of a scheme where CRIR and CRIV read as one. This would therefore appear to be unnecessary visible aviation lights. If scheme goes ahead then we would ask that the lighting scheme ties in with CRIV and omits what will be the lights on internal turbines of the two schemes, such as sketched below.



Possibly omit three lights, two on CRIV and one from proposed development.

The lights at 200cd and at longer distances may just appear as dim points of light. However they still appear as uncharacteristic elements within the landscape, not related to landscape form or character. A single light will be less eye catching than several. This proposal increases the number of lights. Omitting some as suggested above may help to reduce impacts from lighting.

It has recently been announced that the Scottish Air Ambulance now has night vision.

<https://www.scaa.org.uk/our-mission/news-and-media/your-support-will-be-our-eyes-in-the->

[dark/](#)

At the time of the public inquiry for CRIV the argument given for visible aviation lighting was that this helicopter did not have night vision. We would question whether this changes the whole landscape around the requirement for visible aviation lighting.

This is the wording for Condition 23 Aviation warning lighting of ECU00000607 Crystal Rig Wind Farm (Phase IV):

(1) Unless otherwise agreed in writing by the Planning Authorities, in consultation with the Civil Aviation Authority, the Company shall install medium-intensity, Type C 2000 candela red aviation lights that will be within the range between the minimum required intensity and maximum recommended intensities set out in Table 6.3 of International Civil Aviation Organization Annex 14 to the Convention on International Civil Aviation, Volume 1, Aerodrome Design and Operations, Eighth Edition, July 2018 (the ICAO Regulations) as reproduced in Table 1 below, and with the capacity for dimming to not less than 10% of the minimum peak intensity specified for a light of this type in circumstances permitted by Civil Aviation Authority Policy.

(2) The lighting to be installed in terms of paragraphs (1)(b) above shall be in accordance with the Civil Aviation Authority approval of 19 February 2020. No visible spectrum lighting other than that described may be installed at the site, other than as required for health and safety purposes, unless otherwise agreed in advance and in writing by the Planning Authorities.

(3) In the event that prior to commencement of development the Planning Authorities receive:
(a) written confirmation from the Scotland's Charity Air Ambulance service that its helicopters are able to operate using night vision imaging technology; and,
(b) written approval from the Civil Aviation Authority for an infra-red only lighting scheme, the lighting scheme to be implemented in terms of this condition shall require only the provision of infra-red only lighting in accordance with the written approval of the Civil Aviation Authority referred to at (b) above.

(4) In the event that the written confirmations and approvals referred to above in paragraph (3) of this condition are received by the Planning Authorities and the Civil Aviation Authority after the development becomes operational, any visible aviation warning lighting installed on the turbines shall be operated in infra-red mode only, or replaced with infra-red lighting, if that is not possible.

The Development shall thereafter be operated fully in accordance with the requirements of this condition.

Reason: *in the interests of aviation safety.*

ACCESS ROUTE

No landscape assessment of the impact of the AIL route has been submitted. We requested at scoping stage that the LVIA should include an assessment of the impact on both landscape and visual (including physical effects on landscape character) of any works to the access route to the site. The access route lies within the Upland Fringe – Lothian LCT and Eastern Lammermuir Fringe LCA. Works have been undertaken to this route to enable access for blade delivery for the CRIV development. The blades proposed for this development are 14m longer.

Chapter 10 – Traffic and Transport chapter of the LVIA states:

“Some additional works may be required to accommodate the AILVs delivering the turbine components to the Proposed Development. The extent of any additional works would be determined once construction of the Crystal Rig IV wind farm is complete and the exact turbine model for the Proposed Development has been confirmed (should consent be granted). A condition could be attached to any consent issued for the Proposed Development requiring an assessment of AILVs delivering components to the Proposed Development to be submitted and approved by the roads authorities.”

The LVIA states that *“further work is underway to refine the details of minor works that may be required on the access area, and an assessment of this work is not included within this LVIA”*.

A full assessment of the landscape and visual effects of the proposal cannot be provided without this information. It is the same applicant taking forward this proposal as implementing CRIV and therefore they will have all the information available to them such as existing surveys of the route and the mitigation required for CRIV. We would ask that this information be submitted.

CONCLUSION

We support repowering of the wind farm in this location rather than introducing new turbines into a new area of the hills. Our concern lies with the scale and layout of the proposal. Wind turbines at Crystal Rig phases I, II, III and IV have remained contained by the landform with the hills remaining as the dominant element. Crystal Rig IV wind farm, which includes four turbines at 200m to tip, three at 174.5m to tip and four at 149.9m to tip, increases the scale and mass of the wind farm but retains Spartleton as a feature peak.

The CRIR proposals however have been identified in the LVIA as having a significant impact on the landscape and views of East Lothian. The proposal appears to overwhelm the scale of the plateau landscape leading to the loss of Spartleton as a feature peak as shown in the visuals from Viewpoints 5 and 11.

The LVIA appears to undervalue the importance of the horizontal skyline element of the Lammermuirs especially as viewed as the backdrop to East Lothian from the agricultural plain to the north and the effect of the increased visibility afforded by the proposed turbines on the skyline in views from the A198 tourist route (such as from viewpoint 17), the John Muir Way long distance walk and the East Lothian coast.

There appears to have been a lack of consideration given to the design of the wind farm on the historic, tourist and recreational viewpoint from Traprain Law (viewpoint 8).

Overall the scale and height of the proposal appears overly large for the scale and character of the Lammermuir Hills in both day and night such that this could not be supported on landscape grounds. We would support consideration of reducing all the proposed turbines to 200m to tip and 119m to hub. Reducing the hubs of the 230m to tip turbines to 119m would lead to only four of the hubs being higher than the peak of Spartleton. It would not remove the significant effect created by the proposed development. There would still be a contrast in scale where turbines of different schemes are seen together. It may however help to provide a more balanced scheme better contained by the hills in views from the north and that reads better with the existing remaining wind turbines of Crystal Rig and Aikengall.

Visible aviation lighting proposals double the number of lights on turbines within this area of the Lammermuirs. There appear to be opportunities to reduce this that we would encourage the applicant to explore.

No assessment has been undertaken for the impacts on the access route through East Lothian. I would recommend a landscape objection based on these three concerns.

ECU Application No. ECU00005089

ELC Reference No. 25/00005/SGC

Proposal Electricity Act 1989 – Application for construction and operation of a repower of Crystal Rig 1 wind farm. Consisting of up to 10 wind turbines including six turbines with a maximum overall height (to blade tip) of up to 230 m and the remaining four turbines with a maximum overall height (to blade tip) of up to 200 m

Location Crystal Rig 1 Wind Farm, approximately 10km South of Dunbar and approximately 40km East of Edinburgh, within the Lammermuir Hills

Applicant Fred Olsen Renewables
Ltd Per Emily Galloway
Ochil House
Springkerse Business Park
Stirling
FK7 7XE

Ward 06 Dunbar and East Linton

Date 18 December 2025

Sent via email to

iconsents_Admin@gov.scot

Cc Kevin Ainslie Kevin.Ainslie@gov.scot

ANNEX B – ROAD SERVICES COMMENTS

We conducted a site visit on Friday 28/11/25; we were able inspect the condition of the public local road from the A1(T) Innerwick junction to the junction at the Crystal Rig private road near Woodhall. We reviewed the access issues at each of the eleven pinch points along the 5km route, referenced pp#1 to 10 and 4A. Note, it is currently impossible to transit the public road with the 80m turbine blades without further construction works impacting on the public road, trees, hedging and vegetation removed, and existing boundary fences and wall relocated, none of these issues have been referred to or detail provided in the published ECU documentation. We have insufficient information to make a fair and reasonable assessment. I can confirm without receiving further information from the ECU and the Developer we are unable accept their proposals.

All public roads, paths, verges and parking areas shall conform to the latest version of East Lothian Council's [Transport Infrastructure in New Developments](#) document.

The principal reason is the Developer has not demonstrated that the public road access arrangements are either practical or achievable to accommodate the delivery of 80m blades without considerable construction works, and these works impacting on the local roads, trees, verges, hedges, and landscape. The absence of any documentation, this suggests either the scope of this work has not been fully assessed or the ESU documentation is incomplete, and therefore we are unable to consider the impact of the development on the county and complete our assessment.

Considering the volume of information provided, we request that a drone survey is undertaken and

provided to assist all the parties clearly appreciate the access issues at each of the eleven pinch points.

We have ongoing experience of the development works associated with Crystal Rig 4. The 67m blades have created unresolved issues at pp#5, 7, 8, 9 and pp#10 the temporary works at the embankment.

I will require further information including a draft Construction Traffic Management Plan (CTMP) complete with a detailed statement, plans and swept-path analysis demonstrating how the heavy equipment, materials, labour and 80m blades will transit through the 5 km of public road network to the Crystal Rig private access track. If the blades cannot reach the site from the A1 trunk road an alternative route should be considered from the A68 and this would require a separate application.

The CEMP and CTMP should include the plans and swept-path analysis to demonstrate the development is achievable using the public road network in East Lothian. Plans to control traffic speed, and volume, complete with mitigation measures to ensure compliance and identify offenders and resulting actions to prevent repeated offenders. Include measures to avoid any impact on the environment from construction activities.

Abnormal loads and Special loads should be considered in detail for both the Strategic Tunk Road Network and the local public road network

Financial Guarantees should include a bond of sufficient value to ensure the developer undertakes all construction works, landscaping, biodiversity and heritage protection activities in accordance with ELC requirements. This should include an planned timeline and programme of activities (milestones), these milestones to be linked to conditions described in the financial guarantees documentation.

Design and approval of the works to the public road

Add a design phase to the programme prior to mobilisation, scheme designs for each pinch point are to be approved prior to any works commencing on site.

Programme of works

A detailed programme is to be provide within two months of the ECU consent being awarded, this programme is to be then updated monthly based in actual progress, the milestone dates are to indicated and revised as necessary.

Re: CEMP page 17

The following phases would be taken into consideration for the construction works:

- Phase 1 – Site set-up:
- Phase 2 – Construction:
- Phase 3 – Commissioning:
- Phase 4 – Demobilisation:

Including:

- access road improvements and reinstatement
- site compound set-up, including installation of welfare facilities;
- construction of access tracks as required;
- construction of turbine foundations and crane hardstanding's;
- installation of wind farm cabling;
- turbine delivery and construction;
- wind farm commissioning;
- turbine and wind farm reliability run;
- take over;

- snagging; and
- decommissioning of temporary compounds / structures and restoration of the Site

Further additional phases are required to ensure effective project control, add phases for:

- Pre-commencement works, (see the list of activities below)
- Local Public Roads enabling works, at eleven pinch points, pre-construction works
- Public local road maintenance
- Public local road reinstatement
- Landscaping, biodiversity and heritage reinstatement / compensation
- Local public roads damages and compensation negotiation and payment
- Community and stakeholder engagement

Communication and distribution of information

It is critical that East Lothian Council are included in the distribution list for the regular updates of the CEMP, CTMP, consent condition requirements, the project programme, and all community liaison matters.

Table 1.2 Distribution List

Organisation	Contact Name	Email	Telephone Number
Applicant – Fred Olsen Renewables Ltd	TBC	TBC	TBC
Principal Contractor	TBC	TBC	TBC
Environmental Clerk of Works (EnvCoW)	TBC	TBC	TBC
Archaeological Clerk of Works	TBC	TBC	TBC
Scottish Borders Council (SBC)	TBC	TBC	TBC
Scottish Environment Protection Agency (SEPA)	TBC	TBC	TBC
NatureScot	TBC	TBC	TBC
Historic Environment Scotland	TBC	TBC	TBC

The transportation planning team has reviewed the ECU portal, in addition to the points noted in the emails below, we have also identified the following information:

Volume 1 Chapter 4 – Project Description

Page 7 –“Works have been undertaken on the route between the A1 and the access to the Crystal Rig complex to accommodate the abnormal indivisible load vehicles (AILVs) delivering the turbine blades to the Crystal Rig IV wind farm. Whilst dependent on the availability and selection of a final turbine model, it is anticipated that the turbine blade length for the Proposed Development (based on a maximum length of up to 81 m) will exceed that of the turbine blades used for Crystal Rig IV (67 m). As such, additional works along the access route from the A1 are likely to be required to accommodate the AILVs delivering the turbine components to the Proposed Development (e.g. some areas of road widening and vegetation trimming”

The developers should provide sufficient information to allow us to assess the additional works required to allow the development to proceed. What is the extent of the road widening, impact on the landscape, biodiversity, geology, and heritage of the area?

Volume 1 Chapter 10 – Traffic & Transport

Page 2 - *“The effects of the traffic estimated to be generated during the construction of the Proposed Development were assessed and it was concluded [by FOR] that the additional traffic would not have a significant effect on the surrounding transport network, subject to appropriate measures in a Construction Traffic Management Plan (CTMP)”*

I have not seen the Construction Traffic Management Plan (CTMP) and do not agree with the developer’s assessment. I therefore conclude their proposals would have a significant effect on the surrounding transport network. These effects are to be addressed and mitigated wherever possible. I would expect to see the CTMP and appendices before the ECU closes the consultation period.

Volume 2 Figure 10.1 Study Area and Traffic Count

The developer should provide traffic speeds and volumes (vehicle data including types HGV etc.) on a monthly basis and then compare with predicted data. This information is to be used as supporting information when the assessment is made regarding the extra ordinary damages to the public road and environment and necessary compensation is established and paid by the developer.

Volume 2 Figure 10.2 - Abnormal & Special Loads – Planned Route

The Abnormal Loads and Special Deliveries is the same as Crystal Rig 4. From the experience gained over the last year with FOR, there are several lessons to be learnt, we should reserve the opportunity to draft a set of conditions with our Structures colleagues to protect the route from damages to the road, verges, landscaping and the environment and have the ability to suspend deliveries if the conditions of the CEMP, CTMP consent conditions are not being adhered to.

Volume 4 Appendix 4.1 Outline Construction Environmental Management Plan (CEMP)

Page 2 – *“The CEMP is a fluid document that would evolve during the different phases of the Proposed Development. As such it will be subject to ongoing review in order to:*

- *address relevant conditions required in the approved consent;*
- *ensure it reflects best practice at the time of construction;*
- *ensure it incorporates the findings of pre-construction site investigations;*
- *address changes resulting from the construction methods used by the contractor(s); and*
- *address unforeseen conditions encountered during construction”*

The CEMP is a “live” document and will be subject to periodic review and update – CEMP is to be updated and distributed on a monthly basis

The objectives of the CEMP are to

- provide a framework for reporting, compliance auditing and inspection to ensure environmental aims would be met – The CEMP is to be approved prior to any pre-commencement works being undertaken.

Page 10 – *“A detailed condition survey of the public roads will be undertaken prior to construction to identify any existing defects and ensure any damage caused during the works can be rectified post-construction. Works are currently being undertaken along the route between the A1 and the Crystal Rig complex to accommodate abnormal indivisible load vehicles (AILVs) delivering turbine blades to Crystal Rig IV”*

This clause needs to be strengthened to include pre-commencement works, ongoing road maintenance during the construction period, and ensure all damages are made good, and if not a damages and compensation payment is made within an agreed time period. This should be tied into a Minute of Undertaking (MoU), Minute of Agreement (MoA), Bond for all activities within East Lothian.

Pre commencement Activities

I strongly recommend we add pre-commencement conditions, i.e. no work shall commence on main site until:

1. the road dilapidation remedial works shall be completed on the public road from Crystal Rig 4
2. Design, approval and construction works for pp#1-10 on the public road have been completed to the satisfaction of ELC
3. Specifically, pp#9 the Design, approval and construction works for the realignment of the Woodhall junction
4. Also, pp#10 the permanent design approval and construction of the embankment
5. Implementation of the CR4 landscaping and biodiversity works at pp#1-10 & 4a
6. All CR4 snagging works to be completed at pp#1-10 & 4a

Conclusion

Based on the above, there are significant areas of the developer's proposal that lack critical details, these include during the planning, pre-commencement, design, pre-construction, operational and de-mobilisation phases of the development. These require to be resolved before we can support the proposal. FOR are currently completing Crystal Rig 4, they indicate works will be complete in spring 2026, their activities have impacted on our services and resulted in considerable and unforeseen costs to the Council, these matters should be resolved before consent is considered. Paragraph 4.1.15 is unacceptable, this CTMP document and supporting appendices should be available for review before we conclude our ECU report.

Please advise the applicant that all works within or affecting the public road including works on the footway or verge must be authorised in advance by this Council as Roads Authority.

