

Lewis Wind Power

Stornoway Wind Farm

Additional Information (AI#2)

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Report for

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C/O EDF Renewables

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Document revisions

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1	Draft for client	05/08/2020
2	Amended Draft for Client	28/10/2020
3	Final	02/11/2020

Executive summary

Purpose of this report

This report has been produced for the purpose of addressing the comments raised by consultees as a result of the submission of the additional information in March 2020. The report sets out the comments received from consultees, and how the Applicant has addressed the comments.

The report is accompanied by a number of appendices which set out further environmental information (Additional Information) to support the application.

The report addresses the key concerns raised by SEPA in terms of minimising adverse effects on peat, by siting turbines and associated infrastructure away from the areas of deepest peat where possible. Discussions have taken place with SEPA and SNH to identify locations where improvements can be made to the 'as submitted turbine and infrastructure locations' to minimise effects on the deepest peat.

The report addresses the key concerns raised by NatureScot in terms of ornithology, and in particular further clarification on red throated diver, nest sites for hen harrier, the requirement for further information on a breeding bird protection plan, further data analysis on the potential effects on the eagles to the north of the Stornoway Wind Farm Site (the Site), the need for clarification on the hen harrier model, and further environmental information on herring gulls. The report also responds to concerns raised by RSPB Scotland in relation to hen harrier, red-throated diver and white-tailed eagle.

Consultation comments raised by BT and Ironside Farrar and the request from CnES to provide further justification for the use of onsite borrow pits are also addressed.

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1. Introduction

This report has been produced to provide further Additional Information (AI#2) relating to the Environmental Impact Assessment Report (the 'EIA Report 2019') submitted in May 2019 for the proposed Stornoway Wind Farm (the "Proposed Development").

The Proposed Development is located to the west of Stornoway on the Isle of Lewis. It comprised 35 turbines with a nominal generating capacity of 196MW, of which ten turbines have a proposed maximum blade tip height of 156m and 25 turbines have a proposed maximum blade tip height of up to 180m.

A section 36 application was submitted to Scottish Ministers in May 2019 by Stornoway Wind Farm Ltd (SWL (the Applicant)). The application was supported by an EIA. Consultation responses were received in mid-2019 in response to the application. An Interim Response Report was submitted to Scottish Ministers in December 2019, which summarised the consultation comments received in relation to the EIA Report 2019; detailed the Applicant's response and indicated where Additional Information (AI) would be provided.

AI was subsequently provided to Scottish Ministers in March 2020 (the "AI March 2020") and consultation responses were received between early and mid-2020. The purpose of this document is therefore to respond to matters raised by consultees in relation to the AI March 2020 particularly with regards ornithology and peat matters.

The rest of this report is set out as follows:

- **Section 2** sets out a summary of the consultee response received on the AI March 2020 submission and the Applicant's response.
- **Section 3** sets out a summary of the amendments that are proposed by this AI#2 Report.
- **Section 4** sets out information with regards obtaining copies of the EIA Report 2019, AI March 2020 and this AI#2 Report.
- **Figures:**
 - ▶ **AI#2 Figure 4.1a Site Layout Plan** sets out the removal of turbine 24 and turbine 34 together with other small changes made to the turbine locations, hard standings and access tracks. Changes made to the turbine locations are largely within the application micrositing allowances (50m), and as a result further assessment work is not required as all turbines have already been assessed in terms of the micrositing allowances. Notwithstanding this, **AI#2 Appendix G** sets out landscape and visual wirelines and photography to support the amendments to the EIA Report 2019 and takes into account the removal of the turbines, and the small changes to siting of turbines.
- **Appendices:**
 - ▶ **AI#2 Appendix A** sets out the correspondence received from consultees in terms of BT.
 - ▶ **AI#2 Appendix B** sets out the letter providing clarification to address the comments raised by Ironside Farrar on 3 April 2020.
 - ▶ **AI#2 Appendix C** sets out a technical note to address the comments raised by SEPA in their objection dated 17 April 2020.

- ▶ **AI#2 Appendix D1** sets out further information to address concerns raised by SNH in their comment dated 13 May 2020 in terms of red throated diver, nest sites for hen harrier, the requirement for further information on a protection plan, effects on the eagles to the north of the Site, the need for clarification on the hen harrier model, and further information on herring gulls.
- ▶ **AI#2 Appendix D2 (Confidential)** sets out the Outline Bird Protection Plan.
- ▶ **AI#2 Appendix D3** sets out further information in terms of the PAT modelling regarding the SPA pair of golden eagles.
- ▶ **AI#2 Appendix E** sets out a revised Borrow Pit Assessment to provide additional justification regarding the need for the borrow pits within the Development Site. This document supersedes the Borrow Pit Assessment provided in Appendix 3 of the Planning Statement that was submitted as part of the Section 36 Application.
- ▶ **AI#2 Appendix F** sets out the planning conditions suggested by the Met Office, including the Energy Consent Unit's (ECU) suggested amendments.
- ▶ **AI#2 Appendix G** sets out a Technical Note comprising visuals and wirelines to illustrate the removal of Turbines 24 and 34 to address concerns regarding the effects on qualifying species of the Special Protection Area (SPA).

2. Summary of Consultation Responses

Table 2.1 summarises the consultation comments received to date on the AI March 2020; details the Applicant's response; and indicates where further Additional Information is provided in this document (AI#2) to address comments raised.

Table 2.1 Summary of Comments Received on the AI March 2020 and SWL Responses

Consultee	Summary of Comments	SWL Response
<p>Airwaves</p> <p>03 January 2020</p>	<p>The Airwaves objections raised against the proposed locations for the Turbines 7, 10 and 19 stated in Airwave interference analysis report which was sent on 13th September 2018, which stated:</p> <p><i>"The proposed wind turbine farm at Stornoway Redesign will present a problem to Airwave Microwave Radio Links in the region using the coordinates given. There is no problem to the tetra network.</i></p> <p><i>T7, T10 & T19 are planned to be in line with 2 of Airwaves microwave links & would need to be removed or moved approx. 100m from the centre line indicated."</i></p> <p>Airwave objection currently stands since Turbines 7, 10 and 19 cause obstruction and will need to be relocated at least 100m clear of the Airwave MW radio link operating zones.</p> <p>100m is the minimum buffer clearance required from the blade tip of the turbines to the link path operating zones with no further micro siting of the turbines closer to Airwave radio links.</p>	<p>The comments from Airwaves received in September 2018 were based on the layout presented in the Scoping Report. Airwaves comments were taken on board and the links and buffers were included in the constraints plan, with the result that in the site layout presented in the EIA Report 2019, all turbines are in excess of 160m from the nearest link.</p> <p>Following the comments received on 03 January, Wood contacted Airwaves to request that they rerun the interference calculations with the coordinates presented in the EIA Report 2019 and a response is awaited.</p>
<p>BT</p> <p>10 March 2020</p>	<p>Please see previous email from Paul Atkinson on 25/05/2019 with regards to restrictions on micro-siting of Turbine 7.</p> <p>The conclusion is that, the Project indicated should not cause interference to BT's current presently planned radio network.</p>	<p>SWL acknowledge that no objections have been raised and notes that these comments mirror those submitted in relation to the EIA Report 2019.</p> <p>Correspondence with BT dated 25/05/2019, which is included in AI#2 Appendix A, has confirmed that BT would be prepared to accept the current location of T7 subject to a micro-siting restriction so there is no movement towards the affected link. SWL can confirm they would be happy to accept this as mitigation and for this to be conditioned.</p>
<p>NATS</p> <p>10 March 2020</p>	<p>NATS objects to the proposal. Three different technical impacts are predicted:</p> <ol style="list-style-type: none"> 1. Degradation of the radar-FFM link (Sandwick Head 2 Radar). 2. Reduction in Carrier to interference levels on the air-ground-air communications. 3. Degradation of the Sandwick to Eitshal Microwave link. 	<p>NATS provided details of a microwave link(s) running across the Development Site as part of its original response to the aviation consultation. The link runs within 20m of the proposed location of Turbine 8. Turbine 8 is in the same location as the consented Turbine 34. Further discussions have been with NATS to establish the most appropriate mitigation</p>

Consultee	Summary of Comments	SWL Response
	The reduction in Carrier to interference levels have been deemed to be acceptable however the risk to operation of the 2 links between Sandwick and Eitshal are sufficient for NATS to object to the proposed development.	solution. It is likely that mitigation set out for the Consented Development (requiring re-alignment of the link and/or relocation of the turbine) would be proposed and considered acceptable. SWL would be happy to accept such a requirement and for this to be conditioned.
OFCOM 05 March 2020	A generic response was provided which did not set out any comments on the Proposed Development.	SWL acknowledge that no objections have been raised. No further action is required.
Scottish Water 09 March 2020	Scottish Water has no objection to this application; however, notes that according to their records, the development proposals impact on existing Scottish Water assets. The applicant must identify potential conflicts with Scottish Water assets and contact our Asset Impact Team.	SWL acknowledge that no objections have been raised and notes that these comments mirror those submitted in relation to the EIA Report 2019. Scottish Water mapping was purchased during the EIA process, which identified Scottish Water infrastructure at the site entrances. SWL would be happy to agree a condition requiring that an appropriate means of crossing the infrastructure is agreed with Scottish Water.
Historic Environment Scotland 19 March 2020	HES note that the proposals do not raise historic environment issues of national significance and therefore do not object to the proposed development.	SWL acknowledges that no objection has been raised. No further action is required.
Marine Scotland 30 March 2020	The developer provides a summary (Table 9.16) whereby the proposed mitigation measures and the proposed monitoring of fish, freshwater invertebrates and water quality will be secured by planning condition. MSS recommends that these monitoring programmes follow their guidance ("Generic Monitoring Programme for Monitoring Watercourses in Relation to Onshore Wind Farm Developments" (Nov.2018)) and advice previously provided to ECU in June 2019 (including the selection of additional sampling site on the River Creed, clarification regarding the selected control sites, and consideration of the potential cumulative impact on the water quality and fish populations as a result of developments with hydrological connectivity to the present proposal).	SWL acknowledge that no objections have been raised and would be happy for the requirement for an integrated water quality, freshwater invertebrate and fish monitoring programme to be conditioned and details to be confirmed pre-construction.
Ironside Farrar 03 April 2020	With the exception of one comment, the Developer's response addresses the queries raised in the Stage 1 Checking Report. Further justification / clarification is required as to why there are no scores of 8 for the receptor type, since there appears to be a number of probe locations in relatively close proximity to lochs and more significant water courses. Table 6 suggests lochs and watercourses would have a score of 8.	A letter providing clarification in relation to the issues raised was submitted to ECU on 12 May 2020 and is included in AI#2 Appendix B .

Consultee	Summary of Comments	SWL Response
	<p>While lochs and water courses are included in Table 6 of Section 4.11, review of the individual scoring of the peat probes (Appendix B: Hazard Rank Assessment Records) doesn't show any receptors co-efficient scoring over that of 6. This is surprising since there appears to be a number of probe locations in relatively close proximity to a number of lochs and more significant water courses. Further justification / clarification is required why this is the case, and the risk assessment updated accordingly.</p>	
<p>Scotways 07 April 2020</p>	<p>Scotways concerns regarding the proximity of a turbine to the Hebridean Way remain.</p>	<p>It is noted in the Planning Statement that the location of this turbine is within topple distance of the public road / Hebridean Way, and is contrary to the CnES Supplementary Guidance for Wind Development. The Proposed Development would not obstruct the use of any Core Paths or the Hebridean Way during construction, operation or decommissioning.</p> <p>The relocation of the wind turbine further away from the public road has been considered, however this would impact on other environmental and technical considerations. As a result, it is not possible to move the turbine further from the footpath.</p> <p>The Proposed Development would result in the creation of approximately 28.7km of new tracks and 14 watercourse crossings, expanding the countryside path network and therefore public access on the Isle of Lewis. Whilst it is recognised that the Hebridean Way is in close proximity to the Proposed Development there would be wider benefits of additional public access across the Development Site which would mitigate the adverse visual effects of the Proposed Development associated with the proximity issue.</p> <p>In addition to this an Access Management Plan is proposed for the Development Site, and would be subject to condition to further mitigate this effect.</p>
<p>Transport Scotland 14 April 2020</p>	<p>Transport Scotland was consulted on the EIA Report supporting the application and provided comment in our letter dated 17 June 2019.</p> <p>In this, we concluded that the location of the proposed development and its remoteness from the trunk road network meant that there would be no significant traffic or related Environmental Impacts on the Trunk Road Network. As a consequence, no further information or assessment of environmental impacts on the trunk road network was requested.</p> <p>With regard to the Additional Information, Transport Scotland has no further comment to</p>	<p>SWL acknowledges that no objection has been raised. No further action is required.</p>



Consultee	Summary of Comments	SWL Response
	<p>make and we can confirm that we have no objection to the proposed wind farm in terms of environmental impacts associated with increased traffic on the trunk road network.</p>	
<p>British Horse Society 14 April 2020</p>	<p>Please can you make the provision of multi-use shared paths a condition of this project. A good network of paths and tracks around this project would be life changing bringing huge safety and wellbeing improvements to our sector and others.</p>	<p>SWL acknowledges that no objections have been raised. The Proposed Development would result in the creation of approximately 28.7km of new tracks and 14 watercourse crossings, expanding the countryside path network and therefore public access on the Isle of Lewis. An Access Management Plan is proposed as part of the mitigation measures associated with the Proposed Development. There is an opportunity to include some sections of the 28.7km of track to be signposted to assist horse riding in some areas of the Development Site, and these areas would link up with existing paths/roads around the local area. The Proposed Development would therefore bring the wider benefit of additional public access for horse riders across the Development site.</p>
<p>SEPA 17 April 2020</p>	<p>Maintain their objection on the grounds of impacts of peat.</p> <ol style="list-style-type: none"> 1. Minimising impacts on peat 1.1 We welcome the removal of laydown areas and substations which reduces the volume of peat that will be disturbed. However...no amendments seem to have been made to the location of turbines and crane pads which are located on deep peat (some greater than 3m) when suitable alternatives exist. As a result, we maintain our objection and we have suggested modifications to turbines 4, 5, 11, 13, 14, 15, 18, 19, 26, 27 and 32 and we are happy to discuss this directly with the applicant. 1.2 We previously noted concerns that requirements for dewatering of turbine bases during construction would require settlement lagoons which could impact sensitive wetland habitats and areas of deep peat. Provided the amendments we suggested above are adopted, then we withdraw our objection to this aspect of the proposal as it will have been demonstrated that the infrastructure is located in areas of shallower peat. 1.3 While we understand the rationale for having borrow pits throughout the site to meet demands and to address construction at the further reaches of the site, it does appear that the reliance on borrow pits could be further reduced due to having such large quarries in such close proximity to the site entrance and while on balance in this case we withdraw our objection we recommend the determining 	<p>Concerns raised by SEPA have been carefully considered, and further design iterations have been investigated to understand if further savings can be identified in terms of disturbance to the peat habitat at the Development Site.</p> <p>The majority of the concerns raised by SEPA in their objection have been addressed by moving turbines, or infrastructure out of the deeper areas of peat. However, it has not been possible to entirely remove turbines or infrastructure from the deepest areas of peat identified by SEPA. Further information on this is set out in AI#2 Appendix C Peat Technical Note.</p> <p>SWL acknowledge that the objection regarding settlement lagoons and borrow pits has been withdrawn and that no further action is required. Notwithstanding this, further information on the need for the borrow pits is set out in AI#2 Appendix E Borrow Pits.</p> <p>SWL acknowledge that the objection regarding the use of cut and floating track over short distances has been withdrawn. An updated AI#2 Figure 4.1, taking account of the track realignments identified in the Peat Technical Note, is included in the Figures section of this report.</p>

Consultee	Summary of Comments	SWL Response
	<p>authority give this further consideration taking on board the fact that the habitats and peatland in this location are of such high quality.</p> <p>1.4 We previously had concerns that alternating cut and floating track side by side over short distances would not be achievable due to site conditions. We therefore asked for clarification as to whether such a design will be practicable. Table 3.2 of the AI states that the SWL Construction Team has designed the tracks, which they believe to be achievable, and this it is possible to transition from one track to another over short sections whilst still adhering to best practice construction. We withdraw our objection to this aspect of the proposal as AI Figure 3.1 becomes an <u>approved plan</u>.</p> <p>2. Amendments to the Peat Management Plan</p> <p>2.1 We request that the amendments below are adopted within the finalised Peat Management Plan which we ask be secured by condition:</p> <p>a) Re-use of peat: we previously noted concerns that proposals for peat re-use on site are limited and plans for peatland restoration remained vague. Should peatland restoration of accessible peat cuttings be proposed, we would require detailed plans to be submitted as part of the finalised Peat Management Plan.</p> <p>b) Quality of excavated peat: we previously had concerns that excavated peat might not be suitable for restoration purposes. Section 3.2 of the Peat Management Plan states that "in the unlikely event that a significant volume of peat proves to be unsuitable, every effort would be made to find an alternative use in discussion with SEPA". We would therefore expect details of what options would be appropriate to be outlined within the finalised Peat Management Plan to ensure contingencies are in place. The finalised Plan should also include recalculations of peat disturbance.</p> <p>c) Preservation and re-use of turves: we welcome that the amendments we previously requested be conditioned have, for the majority, been incorporated into Section 3.2 of the AI Appendix 9H Peat Management Plan. While we welcome that Section 4.3 of the Peat Management Plan highlights the importance of peat turves, we would ask that reference is</p>	<p>SWL would be happy for the requirements listed to be conditioned for inclusion in finalised Peat Management Plan.</p>

Consultee	Summary of Comments	SWL Response
	<p>specifically made to placing turves in a checkerboard pattern to maximise coverage of the bare peat surface area should insufficient turves be available. We ask that this is amended within the finalised Peat Management Plan which will be secured by condition.</p> <p>2.2 Borrow pit restoration: we note that a borrow pit restoration plan is proposed to be submitted to SEPA for approval prior to restoration and we would ask that this is secured by condition.</p> <p>2.3 Commitment to consult: we welcome that the applicant would liaise with SEPA to establish appropriate solutions should there be any excess of excavated peat following reinstatement and restoration.</p>	
	<p>3. Wetlands</p> <p>3.1 We withdraw our objection in relation to impacts on highest sensitivity habitats but we recommend that they are avoided as much as possible when determining the final location of infrastructure.</p>	<p>SWL welcomes the withdrawal of the objection in relation to wetlands and will ensure that high sensitivity habitats are avoided as much as possible in determining the final location of infrastructure.</p>
	<p>4. Battery Storage</p> <p>4.1 we welcome the additional information which confirms that the battery storage facilities will be within the main substation compound. It is not clear whether the proposed batteries will contain any potential pollutants which would need to be taken into consideration in the design of the drainage from the site. we therefore ask that details and site plans of specific pollution prevention measures – such as bunding – for battery storage areas be submitted by condition.</p>	<p>SWL acknowledges that no objections have been raised in relation to this matter and would be happy for the requirement for details and site plans of specific pollution prevention measures for battery storage to be conditioned.</p>
<p>MOD</p> <p>20 April 2020</p>	<p>Having reviewed the additional information, they regarding birds and peat, they are not relevant to the MOD therefore we have no objection.</p>	<p>SWL acknowledges that no objections have been raised. No further action is required.</p>
<p>RSPB Scotland</p> <p>30 April 2020</p>	<p>RSPB Scotland objects to this proposal on the grounds that it is likely to cause unacceptable impacts to several bird species of conservation concern, at the scale of the Isle of Lewis; Lewis Peatlands SPA and the Western Isles Natural Heritage Zone. These likely impacts would be as a result of:</p> <ul style="list-style-type: none"> a) disturbance and displacement to red-throated diver (breeding within and outside the Lewis Peatlands SPA) b) disturbance and displacement to breeding and roosting hen harrier c) Collision risk to: <ul style="list-style-type: none"> - Hen harrier - Red-throated diver and - White-tailed eagle 	<p>SWL prepared a Bird Protection Plan (BPP) for discussion with RSPB Scotland and NatureScot. The BPP forms a confidential appendix to this AI#2 Report. Following the discussions, SWL acknowledge that the RSPB Scotland welcomes the commitments made in the Bird Protection Plan that reduces disturbance impacts during the construction and operational phase.</p> <p>Furthermore, SWL will commit to carrying out monitoring of red-throated diver and hen harrier across the site annually for the duration of the construction and operational phase (as set out in the Outline Habitat Management Plan (AI Appendix 9I)) in order to inform the proposed mitigation measures.</p>

Consultee	Summary of Comments	SWL Response
	<p>We disagree with the conclusion of the AI and EIA Report (EIAR) that the proposal would not have significant effect on birds. The data presented in the EIAR and AI predicts significant negative impacts from the Stornoway Wind Farm, alone or in combination with other wind farm proposals, for three bird species of conservation concern for which the Western Isles host nationally and/or internationally important populations; namely red-throated diver, hen harrier, and white-tailed eagle. These likely effects would extend over a much greater area than the proposed development site boundary and over the life of the project.</p> <p>Furthermore, the overall impacts to these species through a combination of disturbance, displacement and collision risk are greater than those predicted for the proposed development on the same site which was consented in 2012 and varied in 2016.</p> <p>Turbines need to be removed to reduce impacts on the species noted above from disturbance, displacement and collision mortalities. Measures proposed in the Outline Habitat Management Plan (OHMP) are insufficient to mitigate the impacts of the current proposal on birds of conservation concern. We advise that seven turbines (specifically turbines: 7, 10, 15, 17, 18, 23 and 24) should be removed initially, then collision risk modelling re-run. We would welcome further discussion with the Energy Consents Unit and the applicant regarding turbine removal.</p> <p>Our comments are focused on hen harrier, red-throated diver, white-tailed eagle that would be most impacted by the proposal. However, it should be noted that we also have concerns over negative impacts on the local or regional populations of several other species including golden eagle, common tern, black-throated diver and herring gull.</p> <p>The current proposal would contribute to mitigating climate change through the provision of renewable energy but at the unnecessary and avoidable expense of species of high conservation concern.</p>	<p>SWL have addressed the concerns raised by the RSPB Scotland regarding the proximity of Turbine 24 to a red-throated diver nest located within the Lewis Peatlands SPA by proposing the removal of this turbine from the scheme, thereby removing concerns regarding the impacts to this SPA red-throated diver breeding pair.</p> <p>In relation to the RSPB Scotland's concerns regarding the loss of range to the Beinn Barvas golden eagle territory that falls within the Lewis Peatlands SPA, LWP have re-run PAT models to investigate various layout scenarios in order to meet the minimum threshold of range use loss that NatureScot identified (the current cumulative predicted range use loss from current consented sites: Pentland Road, Beinn Thulabaigh, Beinn Grideag and the consented Stornoway wind farm). This has led to SWL proposing the removal of Turbine 24 and Turbine 34 from the Proposed Development. This results in a cumulative range use loss less than that of all current consented schemes. Further details associated with ornithology regarding the removal of turbines 24 and 34 are set out in AI#2 Appendix D3.</p> <p>Furthermore, by proposing the removal of turbines 24 and 34, the predicted collision risk to all species would be reduced. This would address in some way, some of the concerns raised by the RSPB Scotland in terms of the onsite collision risks raised by them.</p> <p>However SWL acknowledge that all concerns raised by the RSPB Scotland cannot be addressed without the removal of additional turbines throughout the wind farm and this must be carefully weighed in the planning balance together with the benefits of the Proposed Development in terms of renewable energy production, and other associated benefits of the Proposed Development.</p>
<p>Highlands and Islands Airports Limited (HIAL)</p> <p>27 April 2020</p>	<p>Our calculations show that, at the given position and height, this development would impact the safeguarding criteria for Stornoway Airport.</p> <p>Due to the height and position of the development, a steady red omnidirectional aviation warning light with minimum 200 candela would be required on the hub height of the turbines. Infra-red lights are specifications</p>	<p>SWL accept the need for aviation lighting. A planning condition should be attached to any consent requiring the installation of lighting in accordance with HIAL's requirements.</p>

Consultee	Summary of Comments	SWL Response
	<p>for military aircraft only and cannot be seen or detected by civil aircraft, hence this specification.</p>	
<p>SNH (LVIA advice)</p> <p>14 May 2020</p>	<p>We consider the proposed windfarm would not affect landscape interests of national importance. There will be a number of significant adverse effects arising from the height of the turbines and the requirement for them to be lit.</p> <p>The proposal would have some significant adverse landscape and visual impacts on the setting of Stornoway and over the island of Lewis, as well as in views from the sea to the south-east of Stornoway.</p> <p>The proposed development would have significant adverse cumulative impacts in combination with the existing Arnish Moor, Beinn Grideag and Pentland Road wind farms due to its contrast of wind turbine height and layout.</p> <p>The proposed turbine lights will appear as a prominent feature, intensifying the visibility of lighting from the surrounding road network and some of the elevated locations within the Harris – Uig Hills Wild Land Area (WLA 30). We consider the visual effects of the proposed lighting to be significant; however the effects of the proposed lighting on the wild land qualities as they are described for WLA 30, are not considered to be of a magnitude that is significant.</p> <p>The impacts described above could be substantially mitigated if the proposed wind turbines were reduced in height to be similar to existing and consented wind turbines, and were fewer in number. We agree with the proposed mitigation the local authority sets out to reduce the likely significant effects of the proposed turbine lighting: <i>“it is recommended that Radar Proximity Activated lighting should be installed as a condition of any consent of this proposal to minimise the duration of night time lighting effects.”</i> We consider that this could go further and seek options for infra-red lighting that would not be visible to the human eye. We note that the option for no lighting or reduced intensity has not been consulted on with CAA by the applicant yet.</p> <p>We would encourage exploration of alternatives to the worst case scenario presented, seeking to reduce the likelihood of additional, and possibly unnecessary, significant landscape and visual effects on landscapes which are highly sensitive to this form of development.</p>	<p>SWL acknowledges that no objections have been raised. No further action is required.</p> <p>For information purposes, and based on discussions with CnES, further information has been included in AI#2 Appendix G which shows wire frames and photography of the Proposed development with the removal of Turbine 24 and 34.</p>

Consultee	Summary of Comments	SWL Response
<p>Scottish Forestry</p> <p>16 July 2020</p>	<p>Scottish Forestry notes that the areas of woodland loss required to accommodate the proposed development's infrastructure with any buffers required, amounted to 40.61ha. Scottish Forestry welcomes that the compensatory planting will be undertaken both on and off the development's sit. The Applicant needs to be aware that, depending on exact location, compensatory planting proposals might be subject to the Forestry (EIA) (Scotland) Regulations 2017.</p> <p>Approval of the 4.51ha of felling required to accommodate the proposed development's infrastructure (as per Table 1 Woodland Loss of AI Appendix 9J) will be covered, if granted, by the planning consent. However, it is not clear how the remaining 36.1ha of felling, for the infrastructure buffers, are to be approved. Scottish Forestry therefore asks for reassurance that no development shall commence until the matter of approval for removal of 36.1ha is clarified. If planning consent will cover only the proposed infrastructure footprint (4.51ha), the additional removal of 36.1ha will be subject to Forestry (EIA) (Scotland) Regulations 2017, Forestry and Land Management (Scotland) Act 2018 and The Felling (Scotland) Regulations 2019, and will require a Felling Permission, which will be conditioned on replanting the corresponding area of forest.</p> <p>In the scenario where the entire area of woodland removal is approved under the planning consent, compensatory planting of 40.6ha will be required to meet the requirements of the Scottish Government's Policy on Control of Woodland Removal (CoWRP).</p> <p>Scottish Forestry recommends that the planning consent, if granted, should be conditioned on the following measures, designed to prevent woodland loss:</p> <ol style="list-style-type: none"> 1. To seek clarification on the matter of approval for removal of 36.1ha of forestry; and 2. To require submission of a Compensatory Planting Plan (CPP). 	<p>SWL acknowledges that no objections have been raised.</p> <p>It has always been SWL's intention that the forestry felling and planting would be included in any deemed consent for the Stornoway Wind Farm (including the 4.51ha on site and the 36.1ha off site). It is recognised that the Outline Habitat Management Plan (AI Appendix 9I) identifies land within the Site boundary suitable for amenity tree planting, a Grampian condition would ensure that the planting requirements both at the Site and off the site would be secured through a compensatory planting plan. This plan would identify the felling and planting areas and would be agreed in writing prior to construction works commencing. The replanting would then take place at relevant stages identified in the plan and in line with the requirements for habitat creation for hen harrier.</p> <p>It is considered that condition 2 suggested by Scottish Forestry alludes to this way forward.</p>
<p>Met Office</p> <p>07/08/2020</p>	<p>The Met Office has undertaken further work on potential mitigation solutions and have engaged in constructive discussions with Stornoway Wind Farm Limited. This has led to the possibility that there may be a suitable technical solution short of relocating the existing Druim-a-Starraig weather radar and establishing a radar installation at a suitable alternative location for meteorological radar on the Western Isles from which the Development</p>	<p>SWL acknowledges that the Met Office has now withdrawn their objection to the Proposed Development and would be happy to accept the Met Office's proposed conditions, including amendments suggested by the ECU, which are included in AI#2 Appendix F.</p>

Consultee	Summary of Comments	SWL Response
	<p>will not affect the Met Office's radar equipment or associated operational requirements.</p> <p>Technical work and discussions between the parties remain ongoing and require to be completed before it can be confirmed whether there is an alternative to the relocation of the existing Druim-a-Starraig weather station which could achieve the Met Office's minimum operational requirements. The radar mitigation scheme may still contain provisions regarding relocation of the existing weather station as an appropriate back stop, should another technical solution not meet the Met Office's requirements. However, the Met Office is content that it is appropriate to propose a slightly modified section 36 condition to provide for greater flexibility in finding a solution which achieves the agreed outcome.</p> <p>We therefore append a modified section 36 condition which we would ask be attached to any consent (together with a prohibition on assignment of the consent, following consultation with the Met Office, in order to safeguard the obligations of the consent) thereby allowing the Met Office's objection to be withdrawn.</p>	

*Confidential Appendices will be issued separately to Comhairle nan Eilean Siar, SNH, Energy Consents Unit, NatureScot and RSPB Scotland but not to other consultees.

3. Design Amendments for the AI#2 Layout

3.1 Introduction

- 3.1.1 A design review has been undertaken in response to consultation comments received on the EIA Report 2019 and AI March 2020 relating to peat and ornithology aspects of the proposed Stornoway Wind Farm. The steps taken in developing a revised layout are summarised in the following sections.

3.2 Peat

- 3.2.1 Consent was granted for the Stornoway Wind Farm in 2012. This consent was varied in 2016. The consented development would result in a total disturbance of 306,321m³ of peat. Since consent was granted, policy to protect areas of peat habitat has been amended.
- 3.2.2 Since that time, turbine technology has greatly improved together with construction methods. An application for an optimised wind farm on the Development Site of the consented scheme was submitted in May 2019. The 'as submitted' scheme set out in the EIA Report 2019 would result in a total disturbance of 193,878m³ of peat.
- 3.2.3 Concerns were raised by SEPA at the scoping stage and a request was made to ensure that disturbance of peat was minimised. It was considered at the time of submission of the section 36 application that a reduction in peat from 306,321m³ (the consented scheme) to 193,878m³ (the as submitted scheme) would comply with the concerns raised by SEPA during the scoping consultation, and would comply with the requirements of paragraph 3, schedule 9 of the Electricity Act 1989 regarding the 'preservation of amenity and fisheries', which states:
- "In formulating any relevant proposals, a licence holder or a person authorised by an exemption to generate, distribute, supply or participate in the transmission of electricity –*
- (a) *Shall have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiological features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and*
- (b) *Shall do what he reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any flora, fauna, features, sites, buildings or objects."*
- 3.2.4 In their consultation response dated 17 April 2020, SEPA provided feedback to help assist the Applicant in avoiding areas of the deepest peat over the Site. In response, the Applicant undertook a design review to mitigate the effects on peat and further discussions have taken place between SEPA, SNH and the Applicant in terms of identifying the most appropriate locations for turbines where there is a conflict in terms of environmental constraints. The outcome is that, with small changes in the turbine location or area of hardstanding location, there is the opportunity to make some further savings in terms of reducing the quantity of peat disturbance or loss within the Proposed Development.
- 3.2.5 Further information on the iterative design process is set out in **AI Chapter 3: Scheme Need, Alternatives and Iterative Design Process**, at **AI Table 3.2** submitted in March 2020. Detailed information on the design review undertaken is presented in **AI#2 Appendix C Peat Technical Note**, which includes the figure comparing the site layout submitted as part of the EIA Report 2019 with the small changes arising as a result of the peat design review.

- 3.2.6 Should the changes identified in **AI#2 Appendix C** be implemented, it would result in a total disturbance of peat of 180,127m³ at the Development Site. This could potentially reduce the peat impact from the 'as submitted' infrastructure by a further 13,750.54m³ of peat, which could result in a saving of 41% when compared to the consented development. **Table 3.1** sets out these figures for ease of reference.

Table 3.1 Comparison of Peat Disturbance

	Consented Development 2016	As Submitted Application 2019	Proposed Changes 2020
Quantity of peat to be disturbed	306,321m ³	193,878m ³	180,127m ³
% saving when compared with the consented development 2016	-	37%	41%

- 3.2.7 As a result of these design changes, further reductions on peat disturbance can be achieved and it is considered that the Applicant has done what he reasonably can to mitigate the effects on peat as required by the Electricity Act 1989 when balanced against the benefits of providing renewable energy. Notwithstanding the changes identified to minimise the disturbance to peat, the further amendments made to the scheme as a result of ornithological aspects as discussed in **Section 3.3** (namely the removal of T24 and T34) would also deliver additional reductions in peat disturbance which have not been identified in the peat calculations in **Table 3.1**.

3.3 Ornithology

- 3.3.1 Consultation comments relating to ornithology were received from NatureScot (formerly SNH) and RSPB Scotland in response to the EIA Report 2019 and identified the need to provide a second year of ornithological survey work, which was subsequently provided by the Applicant in the AI March 2020.
- 3.3.2 Following this, further comments were received from RSPB Scotland, as summarised in **Table 2.1**, and informal discussions have taken place with both RSPB Scotland and NatureScot to address their objection points. NatureScot identified the need to provide further clarification on a number of points set out below, which were also relevant to the issues raised in the RSPB Scotland response:
- ▶ Clarification of modelling of impact on red-throated diver in the Lewis Peatlands SPA and in the wider countryside;
 - ▶ Proximity of particular turbines within recommended disturbance distances of nest sites (and roost) of Schedule 1/1A species divers and hen harrier;
 - ▶ The need for detail of Breeding Bird Protection Plans to mitigate these impacts and avoid committing a WACA offence during construction and operation (maintenance);
 - ▶ Reinstatement of 6 turbine positions which were removed from consented Stornoway Wind Farm on account of eagle usage and the potential displacement of Lewis Peatlands Special Protection Area (SPA) breeding pairs at Ben Barvas (5 turbines) and Achmore (1 turbine), with the onus on the Applicant to demonstrate that activity recorded in these areas will not impact the SPA;

- ▶ The need to have agreement of parameters used to model hen harrier and diver impacts; and
- ▶ Scoping out of impacts on herring gull.

- 3.3.3 In response, a clarifications document and an outline Bird Protection Plan (BPP) were prepared (**Appendices AI#2 D1** and **AI#2 D2** respectively) and informally issued to NatureScot and RSPB Scotland for their consideration during summer 2020.
- 3.3.4 Informal comments on the documents were received from RSPB Scotland who welcomed the BPP, however their concerns regarding collision risk to several species and displacement or territory abandonment impacts in addition to disturbance remained. They maintained their position on the need for turbine removal to protect the nationally important populations of species of conservation concern outside the Lewis Peatlands SPA, namely hen harrier, white tailed eagle, golden eagle and red-throated diver and the need for collision risk to be recalculated.
- 3.3.5 Informal comments on the documents from NatureScot identified that most of the natural heritage issues they had looked at were capable of being addressed satisfactorily, however there remained two outstanding issues for them, both relating to the Lewis Peatlands SPA:
- ▶ The possibility that a breeding pair of golden eagles near the site will be displaced, potentially leading to range abandonment; and
 - ▶ The possibility that a breeding pair of red-throated divers will be displaced, compromising the size and distribution of the diver population on the SPA. This impact is considered to arise from the proximity of turbine 24 to Loch na Beiste Bige and is noted that turbine 24 is likely to be one of the turbines impacting upon golden eagle usage within the SPA.
- 3.3.6 The Applicant welcomes the feedback received from NatureScot and RSPB Scotland and as part of the design review, has given further consideration to their informal comments in considering how effects on the Lewis Peatlands SPA could be mitigated. Detailed information on how the concerns raised in terms of ornithology have been considered is presented in **AI#2 Appendix D1 and D2 and D3**. The outcome is that, with the deletion of turbines 24 and 34 from the Proposed Development, the concerns raised by NatureScot in terms of the Lewis Peatlands SPA can be overcome. In particular, the removal of Turbine 24 would remove the impact on the breeding pair of red throated divers in the SPA, and the removal of T24 and T34 would remove any additional effects on the breeding territory of the breeding pair of golden eagles identified in the SPA.

3.4 Other Considerations

- 3.4.1 The changes made to the turbine locations as a result of the peat design review are all largely within the application micro-siting allowances (50m), and as a result further assessment work is not required as all turbines have already been assessed in terms of the micro-siting allowances. Therefore, no changes to the EIA Report or the AI March 2020 are required as a result of the changes proposed by this AI#2 Report.
- 3.4.2 Notwithstanding this, a short technical note is provided in **AI#2 Appendix G** which considers the small changes to the site layout, arising from both the deletion of turbines to reduce effects on ornithology, and the micro-siting of turbines to address peat matters, from a landscape and visual perspective.

3.5 Updated Turbine Parameters

- 3.5.1 **Table 3.2** sets out the turbine parameters of the updated layout that is the subject of this AI#2 Report. For ease of comparison, the updated turbine parameters are presented alongside the 'as submitted' EIA Report 2019 turbine parameters¹ and the proposed changes are identified by bold font. Turbine numbering has not been amended as a result of the proposed deletion of turbines 24 and 34 from the site layout in order to avoid confusion.
- 3.5.2 It should be noted that **Table 3.2** supersedes **AI Table 4.1** in **AI Chapter 4 Description of the Proposed Development**, which was included in the AI March 2020
- 3.5.3 The proposed updates to the site layout are illustrated in **AI#2 Figure 4.1 Site Layout** in the **Figures** section of this report.

¹ No changes to the turbine parameters were proposed by the AI March 2020.

Table 3.2 AI#2 Turbine Parameters

Turbine ID	Max Tip Height	Max Rotor Diameter	EIA Report 2019 'as submitted' Layout		AI#2 Report 'amended' Layout	
			Easting	Northing	Easting	Northing
1	180m	150m	134518	931471	134518	931471
2	180m	150m	135057	931501	135057	931501
3	180m	150m	135334	930964	135334	930964
4	180m	150m	135974	931083	135974	931083
5	180m	150m	136504	931093	136548	931036
6	180m	150m	137085	931096	137085	931096
7	156m	136m	137745	931334	137745	931334
8	180m	150m	137459	931647	137459	931647
9	180m	150m	137054	931906	137054	931906
10	180m	150m	136256	931758	136256	931758
11	180m	150m	135678	931644	135699	931671
12	180m	150m	135509	932128	135509	932128
13	180m	150m	136047	932198	136061	932157
14	180m	150m	136837	932330	136831	932280
15	156m	136m	137962	932171	137925	932158
16	156m	136m	138185	932705	138185	932705
17	180m	150m	137539	932809	137539	932809

Turbine ID	Max Tip Height	Max Rotor Diameter	EIA Report 2019 'as submitted' Layout		AI#2 Report 'amended' Layout	
			Easting	Northing	Easting	Northing
18	180m	150m	137197	932997	137223	933033
19	156m	136m	138130	933104	138169	933121
20	156m	136m	138511	933652	138511	933652
21	156m	136m	138265	934003	138265	934003
22	180m	150m	137306	934087	137306	934087
23	180m	150m	137124	934521	137124	934521
25	180m	150m	136497	935172	136497	935172
26	180m	150m	137065	935045	137075	935062
27	180m	150m	137656	935217	137645	935223
28	180m	150m	137716	934787	137716	934787
29	156m	136m	138091	934590	138091	934590
30	156m	136m	138558	934796	138558	934796
31	180m	150m	138323	935192	138323	935192
32	180m	150m	138066	935798	138031	935804
33	156m	136m	138600	935760	138600	935760
35	180m	150m	137800	934040	137800	934040

4. Obtaining Copies

4.1.1 The EIA Report 2019, the AI March 2020 and this AI#2 Report are available online at the dedicated project website for the Proposed Development which is:

<https://lwp.scot/>

4.1.2 Electronic copies of the EIA Report 2019, the AI March 2020 and this AI#2 Report will also be available for public viewing at:

<https://www.energyconsents.scot> using reference ECU00001850

4.1.3 Hard copies of the documentation are not available owing to the COVID-19 situation, however high-resolution DVD copies of the EIA Report 2019, AI March 2020 and this AI#2 Report are available upon request, free of charge, via email from:

- Grant Folley at: grant.folley@edf-re.uk
- Sue Birnie at: sue.birnie@woodplc.com

Figures



AI#2 Appendix A - Consultation with BT



AI#2 Appendix B - Consultation with Ironside Farrar





AI#2 Appendix C - Peat Technical Note



AI#2 Appendix D - Additional information in terms of Ornithology

AI#2 Appendix D1 - SNH Clarifications Document



AI#2 Appendix D2 - Confidential Appendix



AI#2 Appendix D3 – PAT Modelling Results



AI#2 Appendix E – Revised Borrow Pit Assessment



AI#2 Appendix F - Met Office Proposed Planning Conditions



AI#2 Appendix G- LVIA Technical Note



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