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Your ref: 43122-WOOD-XX-02-CO-T-0002_S3_R1

12 February 2021

Dear Mr Pepper

ELECTRICITY ACT 1989

THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017

SCREENING OPINION OF THE SCOTTISH MINISTERS

IN RESPECT OF A PROPOSED APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 TO CONSTRUCT AND OPERATE THE PROPOSED SOLAR PV, GREEN HYDROGEN PRODUCTION FACILITY AND BATTERY STORAGE FACILITY AT LAND ADJACENT TO WHITELEE WINDFARM EXTENSION AT EAGLESHAM MOOR, EAST AYRSHIRE.

Thank you for your letter dated 14 October 2020 requesting, on behalf of ScottishPower Renewables (UK) Limited (“the Company”), a screening opinion in respect of a proposed application under section 36 of the Electricity Act 1989 to construct the solar PV, green hydrogen production facility and battery storage facility.

The proposed development is the solar PV, green hydrogen production facility and battery storage facility (“the Proposed Development”) located at East Kingswell, immediately to the northwest of the operational Whitelee Windfarm site, to the south of the B764 Eaglesham Road and northeast of Kilmarnock on Eaglesham Moor; and on land 800m west of the Whitelee Windfarm Extension substation.

The Proposed Development will consist of a large scale “solar farm” comprised of arrays of ground-mounted solar photovoltaic panels generating electricity, a hydrogen gas production facility, and a battery facility to convert electrical energy for storage in batteries and subsequently generate electricity from the conversion of the stored energy back to electricity. The Proposed Development includes ancillary electrical infrastructure in the form of

underground connecting cables, roads, access tracks, construction compounds and laydown areas. The hydrogen gas production facility includes pressure vessels, an electrolyser, purification units, a site office, transformers, infrastructure associated with water supply, hydrogen and oxygen processing plant, cooling facilities, a gatehouse, access roads, hydrogen filling bay valves, foundations, hardstanding and perimeter security fencing.

The proposal requires to be screened by the Scottish Ministers in accordance with regulation 7 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (“the regulations”). Following a request for a screening opinion made under regulation 8(1), Scottish Ministers are required to adopt an opinion on whether the Proposed Development is or is not EIA development.

The screening application letter was accompanied by supporting documentation which included a Site Layout map, details of the Proposed Development and surroundings with a review of the environmental baseline and assessment of effects including Use of Natural Resources; Production of Waste; Pollution and Nuisances: Air Quality, Contaminated Land and Water; Risk of Accidents and to Human Health; Landscape and Visual effects; Cultural Heritage and Archaeology; Community and Recreation; Ecology and Ornithology; Hydrology and Flood Risk; Noise and Vibration; Access, Traffic and Transport; and, Land Use.

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017

The regulations set out (at 8(2)) the information that must accompany a request to the Scottish Ministers to adopt a screening opinion. Regulation 10 requires that the Scottish Ministers must seek that information if it is not included within the application documentation. Scottish Ministers consider the information included in the application letter and supporting documents is sufficient to meet the requirements set out in regulation 8(2), and that the submitted information has been compiled taking into account the selection criteria in schedule 3 of the regulations.

Statutory Consultation

Under regulation 8(5) of the regulations, Scottish Ministers are required to consult the planning authority within whose land the proposed application is situated. The planning authorities of East Ayrshire Council, East Renfrewshire Council and South Lanarkshire Council were consulted and responded on 26 November, 23 November and 2 December 2020 respectively advising that, in their view, the proposed development does not constitute EIA development. Copies of the planning authority responses are annexed to this screening opinion (**Annex A**).

Scottish Ministers’ Considerations

EIA development is defined in the regulations, in respect of an application, as a proposed development which is either Schedule 1 development, or Schedule 2 development likely to have significant effects on the environment by virtue of factors such as its nature, size or location.

The Proposed Development constitutes Schedule 2 development in terms of the regulations.

In adopting a screening opinion as to whether Schedule 2 development is EIA development, the Scottish Ministers must in all cases take into account such of the selection criteria in

Schedule 3 of the regulations as are relevant to the proposed development, and the available results of any relevant assessment.

Scottish Ministers have taken the selection criteria in Schedule 3 and all of the information submitted in respect of the screening request into account, and have taken account of the views of the planning authorities. Scottish Ministers adopt the opinion that **the proposal constitutes EIA development and that any application submitted for this development requires to be accompanied by an EIA report.**

In accordance with regulation 7(2), this opinion is accompanied by the following written statement with reference to the relevant selection criteria within Schedule 3 of the regulations. In accordance with the regulations, a copy of the screening opinion has been sent to the planning authorities.

Written Statement

Characteristics of Development

The key characteristics of the development are of buildings, plant and machinery associated with electricity generation, hydrogen gas production, and electricity grid services. The proposed development is comprised of the following main elements:

Development element	Detail
Solar PV farm within a site of 40 – 50 hectares, centred on grid reference NS 50955 47366	<ul style="list-style-type: none">• Approximately 100,000 solar panel arrays of height up to 3 metres;• Approximately 10 inverter stations;• High and low voltage cabling;• Perimeter fencing and CCTV cameras;• Access off the B764; and,• Substation building

<p>Hydrogen production facility with area approximately 0.8 hectares, located within the above Solar PV farm site</p>	<ul style="list-style-type: none"> • A hydrogen electrolyser facility based on Polymer Electrolyte Membrane Electrolysis technology; • A hydrogen purification unit; • A site office; • 4 transformers; • Infrastructure associated with water supply (up to 120,000 litres/day); • Various hydrogen and oxygen processing plant, including a separator vessel at a maximum height of 15m; • 4 hydrogen vertical standing pressure (storage) vessels, with a maximum height of 15m • 2 cooling facilities between 9 and 12m in height; • A gatehouse; • Internal access roads; • 4 filling bay valves on 1 pipework skid (for H₂ filling of tube trailers on-site for export off-site) totalling c. 25% of green hydrogen facility net site area; • Foundations and hardstanding; and • Perimeter security fencing.
<p>Battery storage on platform area of 0.78 hectares at Rough Hill and associated HV cable of length circa 7.4 km</p>	<ul style="list-style-type: none"> • Battery Energy Storage System (BESS) utilising existing Lithium-Ion battery technology; • A single building measuring approximately 70m x 62.5m; and • Cabling of circa 7.4 km connecting the Battery Energy Storage System to Whitelee Windfarm Extension substation, the solar PV farm and green hydrogen production facility.
<p>Construction compounds and laydown areas requiring circa 6,000 m² of land</p>	<ul style="list-style-type: none"> • 3 main temporary construction compounds with one construction compound corresponding to each of the 3 main elements (solar PV, hydrogen and BESS); and • Several minor laydown areas located throughout the scheme (dimensions unknown).

Cumulative impact with other developments (the existing wind farm, which this Development would be an integral part of) would be limited. There would be some significant use of natural resources in construction and during operation, and with the site being restored when the Proposed Development is decommissioned. Waste during construction and operation is expected to be minimal on the whole, although Scottish Ministers consider there is the potential that hazardous wastes may require to be removed from the site over the life of the development subject to the management of the proposed lithium ion battery units at the end of their economic life. More information on this, and on fire control plans, would be necessary if an application is to be submitted. The risks of pollution and nuisances during routine operation are low and likely to be able to controlled or mitigated. The risks of major accidents and the risks to human health are considered low provided there is a buffer between residential properties and the Proposed Development.

Location of Development

The site boundary of the Proposed Development is located immediately adjacent to Whitelee Windfarm and Extension, predominantly within the local authority area of East Ayrshire. Overall, it encompasses a total area of approximately 1,000+ hectares. Of this total site area, it is anticipated that between 40 and 50 hectares would be developed (i.e. the solar PV, green hydrogen and BESS developments). There would also be a circa 7.4 km cable route connecting between the proposed green hydrogen production facility and the BESS and the existing Whitelee Windfarm Extension substation (to allow for connection to the grid).

The site is located approximately c. 6.8km (4.25 miles) from the nearest settlements of Eaglesham (East Renfrewshire, to north east), c. 7.4km (4.6 miles) from Fenwick (East Ayrshire, to south west), c. 5.8km (3.6 miles) from Waterside (East Ayrshire, to south west) and c. 8km (5 miles) from Moscow (East Ayrshire, to south). The northern boundary of the site area is adjacent to the B764 and the M77 is within close proximity to the west.

Due to the nature of the Proposed Development and the location of the various elements within the site (i.e. the solar PV and green hydrogen energy facility to the north and the BESS to the south), there are varying characteristics between these two areas. For ease of understanding, the following paragraphs refer to 'the northern section' and the 'southern section'.

The immediate surroundings of the northern section of the site comprise commercial forestry to the immediate north of the site boundary between the site at the B764, plateau moorland to the south and west which comprises the area of land identified for the site and the Eaglesham Moor area of the existing Whitelee Windfarm and Extension immediately to the east nearby the Lochgoin circuit, Lochgoin reservoir, Lochgoin farmhouse and monument.

The immediate surroundings of the southern section of the site at the BESS comprise sections of commercial forestry to the north, west and south interspersed with areas of moorland combined with existing access tracks between the existing wind turbines of the Whitelee Windfarm Extension. To the east is situated the existing Whitelee Windfarm Extension substation (c. 800m). Distant to the northwest of the BESS site is Craigendunton Reservoir (2km).

Characteristics of the Potential Impact

Given that the Development is located adjacent to an area with existing wind farm development, with limited sensitive receptors within the immediate and surrounding vicinity (with the exception Annex 1 habitats and GWDTEs), effects arising as a result of the Development will be limited both in magnitude and in spatial extent. The nature of effects arising from the Development in most respects are not anticipated to be adverse, however it is likely that significant effects on the environment will occur, particularly on habitats and species (including Annex 1 habitats), peat and hydrology, GWDTEs, water supplies, landscape and visual directly and indirectly. The cumulative effect of all the environmental effects would also be significant.

Scottish Ministers have considered the existing and approved land use; the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground; and, the absorption capacity of the natural environment. The Site is located outwith any settlement boundary, in countryside with some forestry, a wind farm, and road infrastructure nearby. The land surrounding the Development is rural in nature, consisting largely of forestry, peatland, water reservoirs, scattered residential properties and smaller settlements.

Scottish Ministers agree with East Ayrshire Council that the development is of a relatively large size when taken as a complete project. The design of the development is such that it would result in very limited or negligible pollution and has low risks of major accidents or to human health. The use of natural resources (water) would appear to be relatively high, and waste water would be discharged; in other respects there would be very limited production of wastes other than lithium ion batteries at the end of their economic life discarded at certain intervals over the operating life of the development, until the site is decommissioned.

Potential sensitivities associated with this area include a number of rural properties, peat and blanket mire habitat, priority habitats, groundwater dependent terrestrial ecosystems (“GWDTEs”), areas with medium to high flood risk, and buried archaeological remains. There appears to be a number of properties within 1 km of the site, including one adjacent to the boundary of the indicative solar and hydrogen search area.

East Ayrshire Council advises that there are Private Water Supply sources which may be within 2km of the area considered for the cable route. If there is indeed such elements within the buffer that will then be a matter that will require proper assessment in any forthcoming application including risk assessment and mitigation measures.

The West of Scotland Archaeology Service commented there is a potential for the Proposed Development to affect recorded and unrecorded archaeological material in East Ayrshire, but that the resultant archaeological issues of direct effects on buried remains can be dealt with through conditions on any planning consent ultimately granted.

Although existing forestry provides some screening of landscape and visual effects from receptors, over the lifetime of the development, management of the commercial forestry may include felling leading to increased landscape and visual effects and it will be necessary to provide information on this topic in any forthcoming application.

With respect to glint and glare, there appears to be a contradiction between paragraph 4.1.7 of the screening report and paragraph 3.6.32 which suggests that a glint and glare study will be submitted. Given the explanation set out from paragraph 3.6.28 of the report the provision of such an assessment would be supported.

Scottish Ministers understand that the area includes very wet peatland. It is noted that the proposed new cable route runs through Howeburn Bog, Howeburn Moss and Flow Moss and there is potential for any excavation to act as a conduit with de-watering a risk. The cable run also has a couple of water crossings, (and possibly forestry drains) which would also need to be given thought to prevent watercourse diversion/ water incursion. The PV array is in the Collory Bog and along Collory Burn so access, tracks and vehicles also have potential to cause peat disturbance and peat compression. The peatland restoration would require consideration to access without compromising peat integrity or resulting in unnecessary carbon release. Scottish Ministers would expect to see detailed assessment as part of the application.

PV panels will interfere with how the habitats receive their rainwater and may also impact erosion patterns. Rain fed peat wetlands rely on the even dispersal of water to maintain the mosaic of plants, intermittent drying/ deluge shedding from panels will alter that, so impacts to those communities needs to be fully addressed in the assessment. Scottish Ministers understand that the Company invested in ditch blocking and ground wetting to restore modified bogs around Drumtee Water as part of Whitelee wind farm, so it is anticipated there will be a similar approach as part of this development. PV panels are also likely to change to wind flow patterns and this may impact bryophytes and other plants that rely on seed

dispersal by wind. Scottish Ministers note the Company has proposed habitat management units around and between the PV arrays and success of these would be dependent on water flow and water management across the site as a whole.

The screening report indicates that areas of deeper peat and good condition blanket mire will be avoided “wherever possible”, however, these may still be indirectly impacted if disturbance of peat elsewhere causes changes in hydrological conditions or if a peat landslide occurs. Therefore there may be direct and indirect impacts on deeper peat and good condition blanket mire where it is not possible to avoid them, in addition to the direct and indirect impacts on degraded ‘wet modified’ bog identified by the screening report. Scottish Ministers are unable to discount the possibility that the Proposed Development may have significant effects on habitats, ecology, groundwater flow and hydrology including habitats listed on Annex 1 of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the “Habitats Directive”). Such effects, which could occur in the areas described as ‘wet modified’ bog (degraded or otherwise) and GWDTes, may include:

- Shading of the ground with effects on light and temperature at the surface, potentially affecting vegetation or wildlife – it may be cooler under the panels in summer and warmer on cool, dull days and frosty nights under the panels;
- Effects on ecology and hydrology as a consequence of sheltering some areas under the panels from rainfall while other areas receive extra run-off, which could have a negative impact on, for example, epiphytic lichens on heather and some of the smaller bryophytes (mosses and liverworts);
- Additive effects from the above;
- Effects on drainage. Installation and maintenance will require access by vehicle and, potentially, by foot. This is likely to lead to compression of the peat substrate, possibly death of plants and the development of lines of lower resistance to water flow. Cable trenches may also act as a conduit for groundwater.
- Potential effects leaching chemicals from piling materials into the acidic peat which could be damaging to the vegetation or other interests.
- Potential effects from any product (if it is not pure water) used to clean the panels reaching the peat.
- Potential effects arising from the fencing of parts of the site.
 - Excluded herbivores are likely to run along the outside of the fence, eroding a path over time. Large herbivores may gain access as typically happens with forest fencing.
 - Solar fencing may be additional to forest fencing with potential implications for deer management which should be addressed.
 - Badger populations near or passing through the site may be affected unless badger gates are provided.
 - Fencing may post a collision risk to certain bird species.
- Grazing. If grazing by domestic livestock may occur the implications for animal welfare and/or habitats need to be considered.
- There is a potential indirect impact through change to moorland structure associated with PV panels that might reduce the number of prey species for some bird species. The application should be supported by appropriate ecological surveys (habitats and species) and ecological impact assessments.
- Wildfire Management. Climate change and human behaviours are, in general, increasing the risk of wildfire. Wildfires and solar farms are not compatible. Reduced grazing could increase the risk and/or severity of wildfire by facilitating the build-up of e.g. dead grass. To reduce the risk of, and potential environmental damage from,

wildfires, fire plans would address measures to reduce the risk, and improve the control, of wildfires.

- Peat Landslide. Just as electricity generation developments and their associated infrastructure may be affected by or cause peat landslides, other infrastructure such as road networks, flood defences, drainage, power lines, residential areas and farmland may also be affected. Terrestrial habitats in the path of a peat landslide may be damaged by ground displacement and by burial by debris, and aquatic habitats damaged by incorporation of landslide debris in watercourses.

The Scottish Government publication “Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments” (second edition) is considered to be relevant to the proposed Whitelee Wind Farm Extension development as it comprises large scale development within an upland peatland environment. There is a potential for peat slides in areas of peat that are greater than 0.5m in depth on slopes of greater than 2 degrees. These parameters have been clearly identified on the site and assessment is therefore considered to be required. A peat landslide hazard risk assessment (PLHRA) would help establish the risks and the design of appropriate mitigation measures to reduce the risk. A technical report containing advice adopted by the Scottish Government in respect of PLHRA which the Company should have regard to is enclosed in **Annex B**.

There would be landscape and visual impacts. The proposed development is in a location with limited sensitive receptors and is set within the existing wind farm context. The main adverse effect would be on the property at Cauldstanes, which is just south of the solar array, which has over the years been cumulatively affected by wind turbines. There would be additional effects on the property as a currently unaffected part of the view would be developed with solar panels in close proximity.

Landscape and Visual Impact Assessment should address:

- Residential visual amenity assessment for nearby properties (within ZTV and 1km)
- Potential for visible water vapour plume
- Requirement for lighting of any part of the proposal, but most likely the Hydrogen plant, and therefore potential night time effects
- Potential for glint and glare effects on nearby roads and properties. Again the property at Cauldstanes would seem a likely recipient, being to the south of the facing slope

In the opinion of Scottish Ministers, an application should include an EIA Report to enable all relevant matters to be properly assessed.

This screening opinion does not constitute pre-application advice, and is provided without prejudice to the assessment of any application under section 36 of the Electricity Act 1989.

Yours sincerely



James McKenzie

A member of the staff of the Scottish Government

cc East Ayrshire Council; East Renfrewshire Council; South Lanarkshire Council

ANNEX A – PLANNING AUTHORITY RESPONSES



General Letter

Economy and Skills

Depute Chief Executive and Chief Financial Officer

Alexander McPhee ACMA



Interim Head of Planning and Economic Development: David McDowall

Direct Dial: (01563) 576767

Email: submittoplanning@east-ayrshire.gov.uk

Our Ref: 20/0001/S36SCR

Date: 26th November 2020

Contact: David Wilson
07919293482

By email only to: James.McKenzie@gov.scot

James McKenzie
Energy Consents Unit
Scottish Government

Dear Mr McKenzie,

Proposal: EIA screening opinion regarding solar PV, green hydrogen production facility and battery storage facilities
Site Address: Whitelee Wind Farm, Eaglesham Moor, East Ayrshire

I write in connection with the recent consultation sent by the ECU to East Ayrshire Council, as Planning Authority, in respect of above which seeks the Council's views on whether the proposed development is EIA development, as required by Regulation 8 of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

Firstly, thank you for agreeing to the short extension to enable the Planning Authority to provide this response. This has enabled consideration of the applicants supporting information and other relevant matters.

Having done so, and having due regard to the selection criteria of Schedule 3 for screening Schedule 2 development set out within the above Regulations, the Planning Authority is of the view that this development is not an EIA development. A brief overview of the reasons for this is set out below and some additional commentary on process and application information requirements follows those reasons.

For the avoidance of doubt, no further consultation has been undertaken by the Planning Authority in coming to this position and as such the Planning Authority recommends that the applicant liaises with relevant consultees when progressing

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with their proposals to ensure that all relevant topics are supported by sufficient information to enable detailed assessment to take place.

In general terms the Council is broadly in agreement with the findings and conclusions made by the applicant. It is noted that in relation to the characteristics of the development, the development is of a relatively large size when taken as a complete project but that the design of the development is such that it would appear to have relatively limited effect, particularly during operation, and would result in very limited or negligible production of wastes and pollution and has low risks of major accidents or to human health. Further, although located near to the operational windfarm and other infrastructure the cumulative landscape and visual effect is limited. Although the use of water appears to be high in connection with the hydrogen production element, impacts on soils and biodiversity would appear to be minimal largely due to the likely design although there is some uncertainty on this given the level of information currently provided.

Having regard to the location of the development, the site and much of the surrounds appears to be of lesser environmental sensitivity with much of the land that accommodates the physical footprint of the development being unchanged beneath the solar panels (which is understood to be the general design based on clarification on the phone call with the applicant on 18 November) or having previously been subject to development in respect of the BESS. Despite this it is noted that there are some potential sensitivities associated with this area including a number of rural properties, peat and blanket mire habitat and, somewhat contrary to the supporting information, it is understood that Private Water Supply sources may be located near to the cable route corridor.

It would appear, and it is claimed by the applicant, that potentially significant effects would be limited and could be addressed through appropriate mitigation. Notwithstanding that, there is a degree of uncertainty associated with that claim. In particular, the following observations are made by the Planning Authority:

- The precise details of the design have not been set out and therefore a degree of assumption requires to be made. The weight placed on claims by the applicant that impact on areas of less degraded habitat *will be minimised* by design and that deeper peat and good condition blanket mire will be avoided *wherever possible* has to be made within the context that the actual impact on such matters, even with that approach, are unknown. As such the extent to which siting and design can achieve these objectives cannot be completely ascertained at this time although as an approach in principle this is welcome;
- The approach to landscape and visual matters is generally acceptable although the removal of the BESS element from the scope appears to be partly based on its location within surrounding forestry. The forestry in this location is commercial in nature and therefore felling would be expected to take place in time. As such, long term screening cannot be relied upon and I would caution the removal of the BESS from the scope

- based on this criteria;
- As noted above, it is understood that Private Water Supply (PWS) source locations are in proximity to the cable route. There is no indication whether the 2km distance has been set from infrastructure, the cable route buffer or the application boundary but if it is possible elements of PWS are within 2km. If there is indeed such elements within the buffer that will then be a matter that will require proper assessment in any forthcoming application including risk assessment and mitigation measures. Early contact with the Council's Environmental Health service is recommended;
 - With respect to traffic and transport two access options appear to be considered although limited detail is provided on each. No detail is set out within the screening as to the expected construction and operational traffic, the latter being mostly associated with the hydrogen element. It is understood from the 18 November call that such traffic is not of a level that would have any significant impact on the local road network and as noted by the applicants supporting information, supporting information including mitigation would accompany any future application. It is suggested that early contact be made with the Ayrshire Roads Alliance as the roads authority for this area to ascertain any requirements for a Transport Assessment and/or the scope of any such assessment.

Despite noting the above points, having regard to the likely significant effects on the environment in relation to the paragraph 1 and 2 criteria of the Schedule and having regard to the impact on the factors in Regulation 4(3) and accounting for the matters of paragraph 3 of the Schedule, it is considered that the development would not be EIA development.

In addition to the above however, paragraph 4.1.7 suggests that certain topics be scoped out from further assessment. With respect to glint and glare, there appears to be a contradiction between that paragraph and paragraph 3.6.32 which suggests that a glint and glare study will be submitted. Given the explanation set out from paragraph 3.6.28 of the report the provision of such an assessment would be supported. The remaining topics requested for scoping out from further assessment appear to be reasonable on the basis of the potential impact, or lack thereof, in respect of these topics.

Despite this and considering the relatively new nature of the hydrogen element in particular, it is considered that any future submissions should be supported by an overview of such topics, similar to the explanations set out in the supporting information for this screening. That will enable all interested parties, including members of the public, to understand that these matters have been considered but for the reasons set out, do not require further detailed assessment.

Notwithstanding the above, the procedure with respect to the processing of this proposal has not, to the Council's knowledge, been formally set out. The screening is submitted under the Regulations above. However, the nature of the proposals appear to straddle the Planning and Electricity Act's. That uncertainty

is reflected in the applicants supporting document paragraph 1.1.1: *an anticipated application to be made under Section 36 of the Electricity Act 1989 and/or Section 32 of the Town and Country Planning (Scotland) Act 1997 (as amended)* (emphasis added).

A discussion has taken place involving the Council, the ECU and the applicant in which the appropriate consenting route for this project was considered although no settled position was achieved. That discussion had a degree of focus on the hydrogen production facility in particular and I verbally set out a preliminary view that such an element appeared to fall to be considered under Section 32 of the Planning Act.

To avoid any future uncertainty, the appropriate consenting route should be set out clearly to ensure that there is no doubt as to this process. That process should include guidance as to the applicability of any screening decision issued under the Electricity EIA regime to the Planning regime, if elements of the project are indeed to fall to the Planning Authority to consider under the Planning Act. That approach would also be of benefit to any interested third party.

I trust that the above is helpful. If you would like to discuss anything or require any further information please do not hesitate to contact me.

Yours sincerely,

David Wilson

David Wilson
Team Leader (Acting)

From: Wilson, David <David.Wilson@east-ayrshire.gov.uk>
Sent: 07 December 2020 09:58
To: McKenzie JR (James)
Subject: RE: 20/0001/S36SCR Solar, hydrogen and BESS, Whitelee [PUBLIC]
Attachments: WoSAS EAC response.pdf

CLASSIFICATION: PUBLIC

Hi James,

I had also heard from WoSAS, who had informally picked up the application as they were not actually consulted by the Council. They provided a slightly different response to me as per the attached. That response somewhat confirmed our general position on the historic environment as we were satisfied that that topic would not likely generate significant effects. Although I note the comments WoSAS have provided to SLC, I do not consider that they change this Council's screening response and therefore I'm happy to rely upon what we have already said. It is however welcome that you are going to provide these comments to the applicant as they can then ensure that their submission contains sufficient information to address any potential impact.

Thanks for the clarification regarding the uncertainty element. The level of information available at screening always makes this a difficult judgement but it is useful to be able to consider matters again when more information is available, if that was required.

I hope that this is useful and lets you finalise the screening however if you need anything else please just get in touch.

Regards,
David

David Wilson
Team Leader (Acting)

East Ayrshire Council, The Opera House, 8 John Finnie Street, Kilmarnock, KA1 1DD

M: 07919 293 482 DD: 01563 576 779

Stewart, John

From: Robins, Paul (DRS) <Paul.Robins@glasgow.gov.uk>
Sent: 25 November 2020 13:02
To: submittoPlanning; Wilson, David
Subject: 20/0001/S36SCR | Proposed solar pv, green hydrogen production facility and battery storage facility | Whitelees Wind Farm Eaglesham Moor East Ayrshire- [OFFICIAL]

[OFFICIAL]

Dear David,

I refer to the above planning application downloaded recently by the West of Scotland Archaeology Service to assess any archaeological issues raised by the proposals. I write to advise that given the past planning history for the site I agree with the conclusions of the scoping report and advise that the resultant archaeological issues of direct effects on buried remains can be dealt with through conditions on any planning consent ultimately granted.

Regards

Paul

West of Scotland Archaeology Service

231 George Street

Glasgow

G1 1RX

Please note: During the current Covid-19 "lockdown", I am working from home, and do not have access to all work files and systems or phones. I apologise for any concomitant delay in replying, or uncertainty in response.

[OFFICIAL]

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From: Love, David <David.Love@eastrenfrewshire.gov.uk>
Sent: 23 November 2020 10:47
To: Tosun L (Lesley)
Subject: FW: Request for Screening Opinion: Solar PV, Green Hydrogen Production and Battery Storage at Whitelee Wind Farm Extension, East Ayrshire

Hi Lesley,

Thanks for your email in relation to the above screening opinion.

The proposed development is located outwith East Renfrewshire however it is located immediately adjacent to the local authority boundary with East Ayrshire.

Given the presence of wind turbines within the area, we have no comment to make in relation to the landscape and visual impact of the proposed development.

From a Roads perspective, we note that a Transport Statement will be included with any submitted application and in this regard we would request that East Renfrewshire are consulted when the formal application is submitted in order to allow the impacts on the local road network, as it impacts on East Renfrewshire, to be fully understood, assessed and mitigated.

From an Environmental Health perspective, the proposed development is within the upper reaches of the Kilmarnock Water and as such it is not expected that there would be any impact on residents within East Renfrewshire with a private water supply. In addition, there is unlikely to be any noise impact and any glare/glint is expected to only impact on residents of East Ayrshire.

I trust the above comments are of assistance at this stage however should you require any further information please do not hesitate to contact me.

Regards,

David

David Love
Principal Planner

Development Management
Planning and Building Standards
East Renfrewshire Council

Tel: 07920 781665

Email: david.love@eastrenfrewshire.gov.uk

From: Lesley.Tosun@gov.scot [<mailto:Lesley.Tosun@gov.scot>]

Sent: 06 November 2020 15:45

To: james.wright@southlanarkshire.gov.uk; EN Planning <Planning@eastrenfrewshire.gov.uk>

Subject: FW: Request for Screening Opinion: Solar PV, Green Hydrogen Production and Battery Storage at Whitelee Wind Farm Extension, East Ayrshire

Dear Sirs

Please see below the consultation email to East Ayrshire Council with regard to the request for a screening opinion for the proposed solar PV, green hydrogen production facility and battery storage at land adjacent to Whitelee Wind Farm Extension.

The proposed development will be located within the planning authority area of East Ayrshire Council, however, given that the wind farm itself spans the planning authority areas of East Ayrshire, East Renfrewshire and South Lanarkshire Councils, we are required to copy the consultation email to yourselves and request any comments you may have.

I would be grateful for any comments by **27 November 2020**. If we do not receive any response by this date, we will assume that you have no comments to make.

Regards

Lesley.

Lesley Tosun
Senior Case Officer | Energy Consents Unit
Scottish Government
4th Floor | 5 Atlantic Quay | 150 Broomielaw
Glasgow | G2 8LU

Email: lesley.tosun@gov.scot

To view our current casework please visit www.energyconsents.scot

From: Tosun L (Lesley)
Sent: 02 November 2020 14:03
To: David.Wilson@east-ayrshire.gov.uk
Subject: Request for Screening Opinion: Solar PV, Green Hydrogen Production and Battery Storage at Whitelee Wind Farm Extension, East Ayrshire

Dear Mr Wilson,

Wood Group UK Limited, on behalf of ScottishPower Renewables, has formally requested a screening opinion for the proposed solar PV, green hydrogen production facility and battery storage facility at land adjacent to Whitelee Wind Farm Extension, (to be located within the planning authority area of East Ayrshire Council), in accordance with regulation 8 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the Regulations").

In accordance with the Regulations, the Scottish Ministers must consult the planning authority within whose land the proposed application is situated, as to their views on whether the proposed development is EIA development.

I have attached the screening request and relevant documentation for this proposal.

I would be grateful if you could provide an opinion on behalf of East Ayrshire Council whether the proposed development is an EIA development and should be accompanied by a full EIA Report, or that it does not constitute an EIA development and would therefore not require an EIA Report.

As the Regulations allow three weeks for the consultation, I would appreciate your views by **23 November 2020** (if you require an extension of time to provide your response, please let me know before this date if possible).

Please email your response to Econsents_Admin@gov.scot.

Regards

Lesley Tosun
Senior Case Officer | Energy Consents Unit
Scottish Government
4th Floor | 5 Atlantic Quay | 150 Broomielaw
Glasgow | G2 8LU

Email: lesley.tosun@gov.scot

To view our current casework please visit www.energyconsents.scot

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The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017

Regulation 8(5) – Requests for screening opinion from Planning Authority

South Lanarkshire Council – Screening Opinion for Proposed Battery Storage Facility

Development description: Proposed solar photovoltaic (PV), green hydrogen production facility and battery storage facility (EIA Screening Request)

Site location: Whitelee Wind Farm, Approximately OS: 253000, 64500 (wholly outwith the Administrative Boundary of SLC)

Date request received: 11.11.2020

Background

Under The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, certain development projects require Scottish Ministers to consider whether a proposed project is likely to have a significant effect on the environment. Under Regulation 8(5) of the above regulations, Scottish Ministers must consult the planning authority within whose area the proposed development is situated as to their views on whether the proposed development constitutes EIA development. In this instance the proposals lie mainly within the Administrative Boundary of East Ayrshire Council with a smaller portion located within the East Renfrewshire Boundary. No part of the proposals fall within the Administrative Boundary of South Lanarkshire Council but as a neighbouring Authority Ministers have also requested a screening opinion the Council. It should be noted that this response solely relates to the potential environmental impacts the development may have on any SLC asset. Any response made is in the context of a neighbouring Authority only and the Council would always defer to the opinion of the Authorities in whose boundary the proposals are located.

Screening Opinion

Proposed development

A development comprising solar photovoltaic (PV), and green hydrogen production facility and battery storage facility within the existing Whitelee Wind Farm and extension.

Site description

The site is located within the existing wind farm outwith the SLC boundary.

Schedule 2 development

Development of a type listed in Schedule 2 requires EIA if it is likely to have significant effects on the environment by virtue of factors such as its size, nature

or location. The development falls within the description of 1 'a generating station', as defined in Schedule 2 of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. Development that falls within a relevant description and exceeds any specified threshold requires to be screened to see if it will be likely to have significant effects on the environment, taking account of the selection criteria in Schedule 3 of the Regulations.

Screening opinion

Having regard to the characteristics of the development, its location and potential impact, and having assessed it against a screening opinion checklist, South Lanarkshire Council considers that, in the context of being a neighbouring Authority, the proposal does not require Environmental Impact Assessment (EIA).

The reasons for adopting this opinion are as follows:

- 1.0 The development is not of a scale to significantly impact any environmental or other asset within the South Lanarkshire Council Administrative Boundary.

Conclusion

It is considered that the impact of the proposal is not of a scale that would have a significant impact within South Lanarkshire Council's Administrative Boundary. It is therefore considered that the development does not constitute an EIA development. Again it is noted that South Lanarkshire Council is solely a neighbouring Authority and would defer to any screening opinion made by the Consenting Authority and any Local Authority in whose boundary the proposals are located within.

SCREENING CHECKLIST

	Yes/ No	Briefly describe	Is effect likely to be significant? Significance should be considered in terms of the extent, transboundary nature, magnitude and complexity, probability, duration, frequency and reversibility of any impact(s).
1. Characteristics of the Development			
(a) Scale of the development			
Will the development be out of scale with the existing environment?	No		
Will it lead to further consequential development or works (e.g. new roads, extraction of aggregate, generation or transmission of power)?	Yes	Power transmission but utilising existing grid network	Not significant as neighbouring Authority
(b) Cumulation with other development			
Are there potential cumulative impacts with other existing development or for proposed development in the planning system?	No	Not of a scale to have cumulative impact with the wind farm	Not significant as neighbouring Authority
Should the application for this development be regarded as an integral part of a more substantial project? If so, can related developments which are subject to separate applications proceed independently?	Yes	Linked to existing wind farm	Not significant as neighbouring Authority
(c) Use of natural resources			
Will construction or operation of the development use natural resources i.e. land (especially undeveloped or agricultural land)? <ul style="list-style-type: none"> • water or fisheries? • minerals or aggregates? • agriculture, forests and timber? • energy including electricity and fuels? • any other resources? 	Yes	Standard construction materials	Not significant as neighbouring Authority
(d) Production of waste			

	Yes/ No	Briefly describe	Is effect likely to be significant? Significance should be considered in terms of the extent, transboundary nature, magnitude and complexity, probability, duration, frequency and reversibility of any impact(s).
<p>Will the development produce wastes during construction or operation or decommissioning?</p> <ul style="list-style-type: none"> • Spoil, overburden or mine wastes? • Household or commercial waste? • Hazardous or toxic substances? • Other industrial processes wastes? • Surplus product? • Sewage or sludge or other sludges from effluent treatment? • Construction of demolition wastes? • Redundant machinery or equipment? • Contaminated soils or other material? • Agricultural wastes? • Any other solid wastes? • Liquid or solid wastes in suspension? • 	Yes	Minimal construction waste	Not significant as neighbouring Authority
(e) Pollution and nuisances			
<p>Will the development cause noise and vibration or release of leachates, light, heat energy or electromagnetic radiation during construction or operation or decommissioning?</p> <ul style="list-style-type: none"> • Combustion of fossil fuels from stationary or mobile sources? • Production processes? • Materials handling including storage or transport? • Construction activities including plant & equipment? • Dust or odours from handling of materials including construction materials, sewage and waste? • Any other sources? 	Yes	During construction period	Not significant as neighbouring Authority

	Yes/ No	Briefly describe	Is effect likely to be significant? Significance should be considered in terms of the extent, transboundary nature, magnitude and complexity, probability, duration, frequency and reversibility of any impact(s).
(f) Risk of accidents, having regard in particular to substances technologies used			
Will there be a risk of accidents during construction or operation of the development which could have effects on people or the environment?	Yes	Normal construction activities	Not significant as neighbouring Authority
(g) Other characteristics: potential physical changes (topography, land use, changes in waterbodies etc) from construction, operation or decommissioning of the development			
<ul style="list-style-type: none"> • permanent or temporary change in land use, landcover or topography including increases in intensity of land use? 	Yes	Assumed to be permanent but reversible.	Not significant as neighbouring Authority
<ul style="list-style-type: none"> • peat land disturbance and/ or degradation leading to: carbon release, damage to habitats, affecting land stability or hydrology? 	Yes	Works/ improvements relating to peat	Not significant as neighbouring Authority
<ul style="list-style-type: none"> • pre-construction investigations e.g. boreholes, soil testing? 	Yes	Unknown but considered likely.	Not significant as neighbouring Authority
<ul style="list-style-type: none"> • construction, demolition, reclamation or excavation works? 	Yes	Limited construction works	Not significant as neighbouring Authority
<ul style="list-style-type: none"> • underground works ? 	Yes	Unknown but considered unlikely	Not significant as neighbouring Authority
<ul style="list-style-type: none"> • facilities for storage of goods or materials? 	No		
<ul style="list-style-type: none"> • new road, rail, air or sea traffic or infrastructure during construction or operation or decommissioning? 	Yes	Access and parking provision	Not significant as neighbouring Authority
<ul style="list-style-type: none"> • new or diverted transmission lines or pipelines? 	No	Transmission of power to grid via existing network	Not significant as neighbouring Authority
<ul style="list-style-type: none"> • any works requiring an authorisation under the Water Environment (Controlled Activities)(Scotland) Regulations 2011 	No		

	Yes/ No	Briefly describe	Is effect likely to be significant? Significance should be considered in terms of the extent, transboundary nature, magnitude and complexity, probability, duration, frequency and reversibility of any impact(s).
<ul style="list-style-type: none"> long-term/ongoing activity during restoration or decommissioning which could have an impact on the environment? 	No		
<ul style="list-style-type: none"> influx of people to an area either temporarily or permanently? 	No		
<ul style="list-style-type: none"> any other changes? 	No		
2. Location of the Development			
(a) Existing land use			
Are there existing land uses on or around the location which could be affected by the development, e.g. undeveloped land, Greenfield land, homes, other private property, industry, commerce, tourism and recreation, public open space, community facilities, agriculture, forestry, tourism, water catchments, functional floodplains, mining or quarrying?	No	Within boundary of existing wind Farm in rural area	Not significant as neighbouring Authority
(b) Relative abundance, quality and regenerative capacity of natural resources in the area			
Are there any areas on or around the location which contain important, high quality or scarce resources which could be affected by the development?	No		
(c) Absorption capacity of the natural environment			
Are there any areas on or around the location which are protected under international or national or local legislation for their ecological, landscape and visual, cultural or other value, which could be affected by the development? Particular attention should be paid to wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, nature reserves and parks.	No		

	Yes/ No	Briefly describe	Is effect likely to be significant? Significance should be considered in terms of the extent, transboundary nature, magnitude and complexity, probability, duration, frequency and reversibility of any impact(s).
Are there any groundwater source protection zones or areas that contribute to the recharge of groundwater resources?	No		
Are their protected species in or around the location, for example European Protected Species, which could be affected?	No		
Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected?	No		
Are there any areas or features of historic or cultural importance on or around the location which could be affected?	No		
Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected?	No		
Is the development in a location where it is likely to be highly visible to many people?	No		
Is the location of the development susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions which could cause the development to present environmental problems?	No		

From: O'Hare, Martin (DRS) <Martin.OHare@glasgow.gov.uk>
Sent: 26 November 2020 12:11
To: Planning
Subject: Planning Reference P/20/1584

OFFICIAL

Dear Sir or Madam,

I refer to the above EIA Screening request, for a solar photovoltaic green hydrogen production facility, with associated battery storage facility on land adjacent to the Whitelee Wind Farm extension. This was identified as requiring more detailed assessment when it appeared on the weekly list because there were no documents relating to it available on the online planning system. A large number of features are identified in the Historic Environment Record database from the area surrounding the grid reference provided for the proposed development in the weekly list, suggesting that it could raise issues in terms of its potential impact on the historic environment.

Although there are no documents relating to the proposal available on the Council's online planning system, I was able to find details of the Screening Request on the website of the Scottish Government Energy Consents Unit. Plans supplied as part of this document appear to indicate that all of the elements of the proposed development would be located in East Ayrshire, to the west of the Lochgoin and Craigendunton reservoirs. This would suggest that it is unlikely to have a direct impact on historic environment features within South Lanarkshire. However, it would have the potential to affect recorded and unrecorded material in East Ayrshire, and as a result, I would advise that this aspect would need to be considered during the course of any impact assessment carried out in relation to proposed development.

Regards,

Martin O'Hare

Martin O'Hare
Historic Environment Record Officer
West of Scotland Archaeology Service
231 George Street
Glasgow
G1 1RX

Please note: During the current Covid-19 "lockdown", I am working from home, and do not have full access to all work files and systems. I apologise for any concomitant delay in replying, or uncertainty in response.

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ANNEX B – PEAT LANDSLIDE ADVICE

PEAT LANDSLIDE HAZARD RISK ASSESSMENT

Whitelee Wind Farm Extension,
Solar PV, Green Hydrogen Production
Facility and Battery Storage

PLHRA ISSUES



Scottish Government
Riaghaltas na h-Alba
gov.scot

ENERGY CONSENTS UNIT

IronsideFarrar
Environmental Consultants

50762 | 12.02.21

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FIGURES

1.0 INTRODUCTION

1.1 Context to Report

The Energy Consents Unit has commissioned Ironside Farrar Ltd to provide advice relative to potential Peat Landslide Hazard and Risk Assessment (PLHRA) for green energy developments at Whitelee Wind Farm Extension.

This short review will consider context and whether the conditions on the site and the construction of a solar farm / hydrogen plant warrant the provision of a PLHRA. It will provide a summary of the proposed development, baseline conditions relating to peat and peat land slide risk (as outlined in the Peat Landslide Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments, Energy Consents Unit Scottish Government, Second Edition, April 2017) and recommendations relative to this guidance.

1.2 Background to The Development

Scottish Power Renewables (SPR) is currently in the process of developing a combined Solar PV farm and Hydrogen Production Facility upon land located adjacent to the operational Whitelee Windfarm at East Kingswell. The section of land proposed for the development was previously earmarked for an extension to the existing windfarm, but the application did not make it past the planning stage.

SPR anticipate making an application under Section 36 of the Electricity Act and/or Section 32 of the Town and Country Planning (Scotland) Act 1997.

The Proposed Development comprises 3 main components: a c. 35MW solar PV farm, a green hydrogen production facility and a c. 50MW BESS with an associated HV cable linking the BESS with the other elements of the scheme, as well as the Whitelee Extension Substation to the south of the proposed development.

The site boundary of the Proposed Development is located immediately adjacent to Whitelee Windfarm and Extension, predominantly within the local authority area of East Ayrshire. Overall, it encompasses a total area of approximately 1,000+ hectares. Notably however, of this total site area, it is anticipated that only between 40 and 50 hectares would be considered net developable area (i.e., the areas for the solar PV, green hydrogen and BESS developments) as well as a c. 7 km cable route connection between the proposed green hydrogen production facility and the BESS and the existing Whitelee Windfarm Extension substation (to allow for connection to the grid).

1.3 Solar PV Farm

It is anticipated that the solar PV farm will comprise c. 100,000 solar panel arrays each with heights of less than 3m at the frame's highest point. The scheme will include several centre inverter stations (approximately 10 of), site tracks, HV and LV cabling, perimeter fencing, CCTV cameras, new access off the B764 (currently considering two points of access) and a substation building (located on the same platform as the proposed hydrogen production facility). It is proposed to locate the solar PV farm within a section of the site located to north west of the site boundary.

1.4 Green Hydrogen Production Facility

The green hydrogen production facility is proposed within the site, embedded within the solar PV scheme and shares a platform (of stone construction) with the substation building for the solar PV scheme. This area of the site extends to approximately 0.8 hectares, based on a present site platform of c. 70m x 120m. At present, the layout of the green hydrogen production facility has yet to be finalised, however based on its initial layout the facility could consist of multiple buildings with an anticipated 4 No. vertical standing pressure vessels up to 15m in height.

The green hydrogen production facility will include the following infrastructure within its footprint:

- A hydrogen electrolyser facility;
- A hydrogen purification unit;
- A site office;
- 4 No. transformers;
- Various H₂ and O₂ processing plant, including a separator vessel at a maximum height of 15m;
- 4 No. H₂ vertical standing pressure (storage) vessels, with a maximum height of 15m
- 2 No. cooling facilities between 9 and 12m in height;
- 4 No. filling bay valves on 1 pipework skid (for H₂ filling of tube trailers on-site for export off-site) totalling c. 25% of green hydrogen facility net site area;

1.5 Underground Cabling

It is anticipated that subject to refinement/micrositing, the underground cable route will run to/from the Whitelee Windfarm Extension substation and the solar PV and green hydrogen production facility over a span of c. 7.4km.

1.6 Battery Storages Facility

The BESS (Battery Energy Storage System) comprises a single building measuring approximately 70m x 62.5m. The BESS compound is proposed to be situated at the location of the former construction compound for the Whitelee Windfarm Extension on a platform which extends to c. 0.78 hectares (100m x 77.5m footprint).

1.7 Compounds and Laydown Areas

It is anticipated that the project will require 3 main temporary construction compounds with one construction compound corresponding to each of the 3 main elements (solar PV, the hydrogen production facility and BESS). In addition to these 3 main temporary construction compounds, there will be several minor laydown areas located throughout the scheme. The location of these areas is yet to be confirmed. Between the 3 main temporary construction compounds and laydown areas, it is anticipated that c. 6,000 sq. m of land will be required in total.

2.0 BASELINE CONDITIONS

2.1 Peat Conditions

Soil mapping (Carbon and Peatland map for Scotland 2016) indicates that the Solar Farm and hydrogen production facility are sited on an area of class 1 peatland. This peatland is described as, nationally important carbon-rich soil, deep peat and priority peatland habitat. Areas likely to be of high conservation value. The area defined as a cable route buffer in figure 1.1 of the SSR screening report is shown on mapping to be class 5 soils, while these are not nationally important, they do have the potential to contain deep peat. Carbon peatland mapping (2016) is included as Figure 3.

BGS Geological mapping for the site shows surface soils to be primarily peatland, with secondary glacial tills (likely to be underlying the peat). Small bands of Alluvium (Clay, Silt, Sand and Gravel.) are present in river valleys. BGS Geological mapping is included as Figure 2.

2.2 Topography

Topography for the site slopes from east to west from 255m to 215m in the area of the Solar PV and Hydrogen Production facility. Slopes across the width of the site are in the range around 3 degrees, varying generally between 1 degree or less up to 10 degrees, with localised steeper slopes present throughout the site particularly within river valleys. OS mapping is included as Figure 1 in the reporting.

2.3 Receptors

Receptors on the site are primarily watercourses; The Drumtee Water, Howe Burn, Dunton Water drain west across the site, with both the Collory Burn and the Drumtee Water flowing through the centre of the Solar PV and hydrogen production area of search. Several smaller burns are present in the south of the site under the footprint of the proposed HV cable route.

Several properties / buildings, paths tracks etc are identified in the vicinity / under the footprint of the proposed Solar PV / Hydrogen production facility as well as the HV cable routing corridor.

The proposed Solar PV and Hydrogen production facility should be classified as a receptor itself, as well as the surrounding forestry land.

Other sensitive ecological receptors include GWDTEs plus wildlife sites, otters and bird species of high conservation importance.

3.0 REQUIREMENTS FOR PLHRA

3.1 Guidance Documents

The Energy Consents Unit Best Practice Guide (ECUBPG) states that it is focused on S36 applications for electricity generation projects with the principles applying equally to S37 applications for above-ground overhead lines which pass through peatland environments.

On the basis that the current scheme is likely to be the subject of a Section 36 application, the ECUBPG is applicable.

Even were the scheme not to be subject to a Section 36 or 37 application, it is considered that the guidance is relevant as it is large scale development within an upland peatland environment.

3.2 Requirements for PLHRA

The ECUBPG states that there is a potential for peat slides in areas of peat that are greater than 0.5m in depth on slopes of greater than 2 degrees. These parameters have been clearly identified on this site and a PLHRA is therefore considered to be required.

3.3 Scope of PLHRA

Whilst the proposed development is the first large scale application for solar/PV/green hydrogen production and the exact development design and layout is not yet confirmed, large scale infrastructure, excavations and loading, tracks as well as vehicle traffic are anticipated for this site. All of these activities are potential trigger factors for a peat slide.

The scope of the PLHRA requires to be commensurate with the activities undertaken on the site and the likelihood of peat slide caused by existing factors such as peat depth, slope angle, substrate, drainage etc. The scope of any PLHRA would be fully defined by the developer once proposals, layouts and construction methods are further defined.

Many of the construction activities will be similar to those already assessed on multiple previous Section 36/37 applications such as access tracks, compounds, borrow pits, structures and foundations. Solar arrays, if simply pinned through the peat, would be less likely to trigger Peat Slide than wind turbine bases. However, due to their scale and impact they require consideration as they will cover a far larger surface area than discretely situated wind turbines. The impact of significant traffic movements across the peat over a larger surface area as part of the construction process requires to be reviewed. Impacts could include compressing the peat, potentially destabilising areas that already have a significant likelihood of peat slide and changing existing drainage pathways by compression/rutting/local destabilisation and movement.

Given this is one of the first large scale development of its kind in Scotland proposed over peatland, a cautious and thorough approach is recommended to ensure that the risks are well quantified and understood in advance. A comprehensive PLHRA is therefore recommended, as the ECUBPG recommends generally in any event.

As noted above, the full scope of the PLHRA would be developed by the developer in due course. We would recommend as a minimum that the following is undertaken:

- Comprehensive desk study and literature review
- Field surveys and peat probing in accordance with ECUBPG. It is suggested that the scope/spacing of the solar array probing should be agreed with the ECU in

advance as existing guidance may not be directly applicable to the development. Somewhere between the probing required for a turbine and the initial probing survey on a 100m grid.

- Development design progressed to avoid areas of initial PLHRA risk including deeper peat, slopes and sensitive receptors.
- Review development and construction activities and their potential to cause/be impacted by peat slide.
- Likelihood assessment incorporating relevant factors including mapping of the full area under consideration (including runoff zones)
- Assessment of receptors including new development infrastructure, existing infrastructure, environmental, property and any other relevant receptors.
- Development of a risk assessment by recognised methods and presented via mapping, tables and calculations.
- Presentation of detailed and credible mitigation where potential medium/high risks are identified as per ECUBPG.

4.0 SUMMARY

The ECUBPG is considered to be relevant to the proposed Whitelee Wind Farm Extension development as it comprises large scale development within an upland peatland environment.

The ECU guidance states that there is a potential for peat slides in areas of peat that are greater than 0.5m in depth on slopes of greater than 2 degrees. These parameters have been clearly identified on the site and a PLHRA is therefore considered to be required.

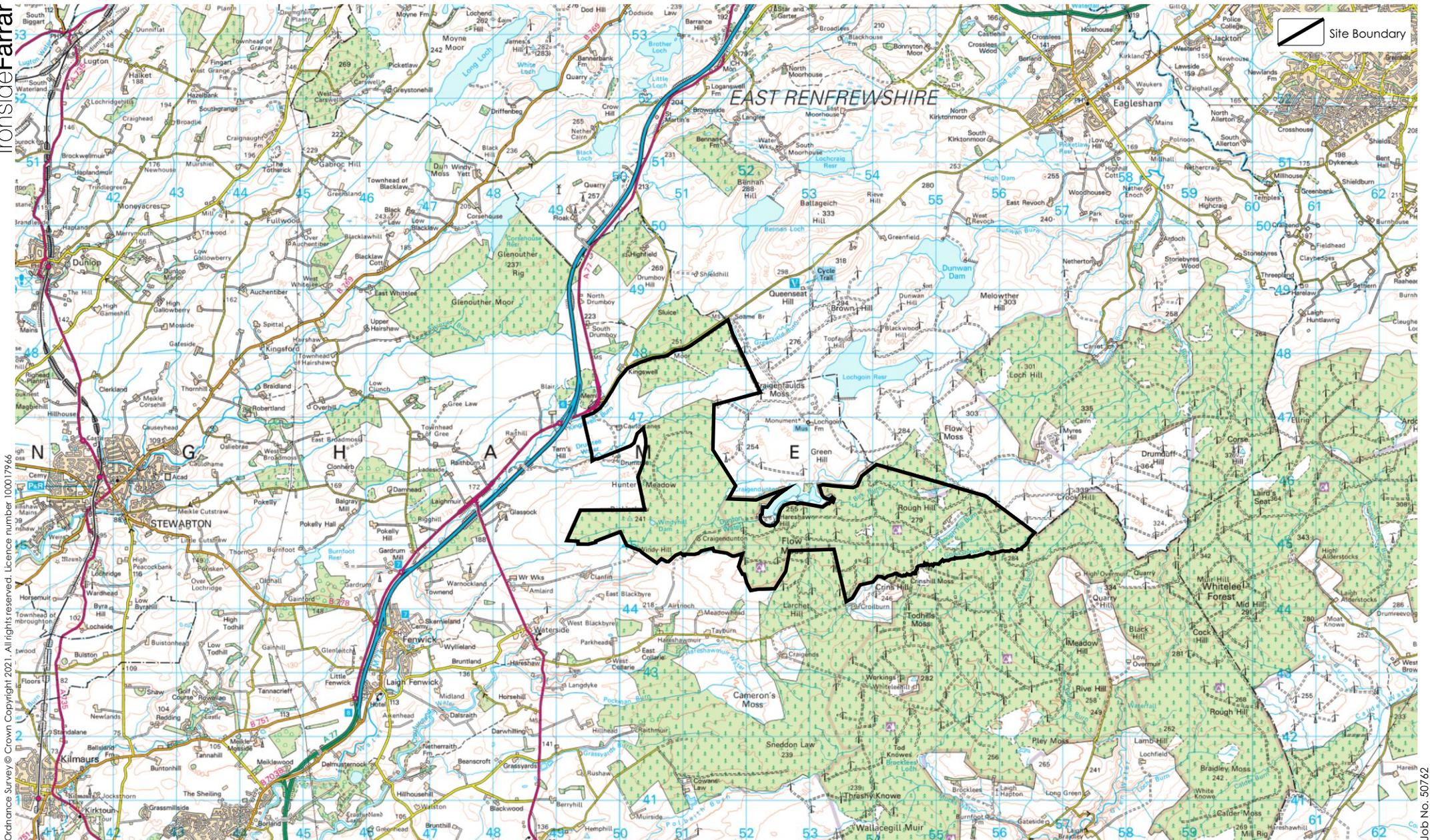
Given this is one of the first large scale development of its kind in Scotland proposed over peatland, a comprehensive and thorough approach is recommended to ensure that the risks are well quantified and understood in advance.

The full scope of any PLHRA would be developed by the developer in due course once proposals are further defined but outline recommendations are made for the assessment. It is suggested that the scope/spacing of the solar array probing should be agreed with the ECU in advance.

FIGURES

FIGURE 1 LOCATION PLAN

Ironside Farrar



Site Boundary

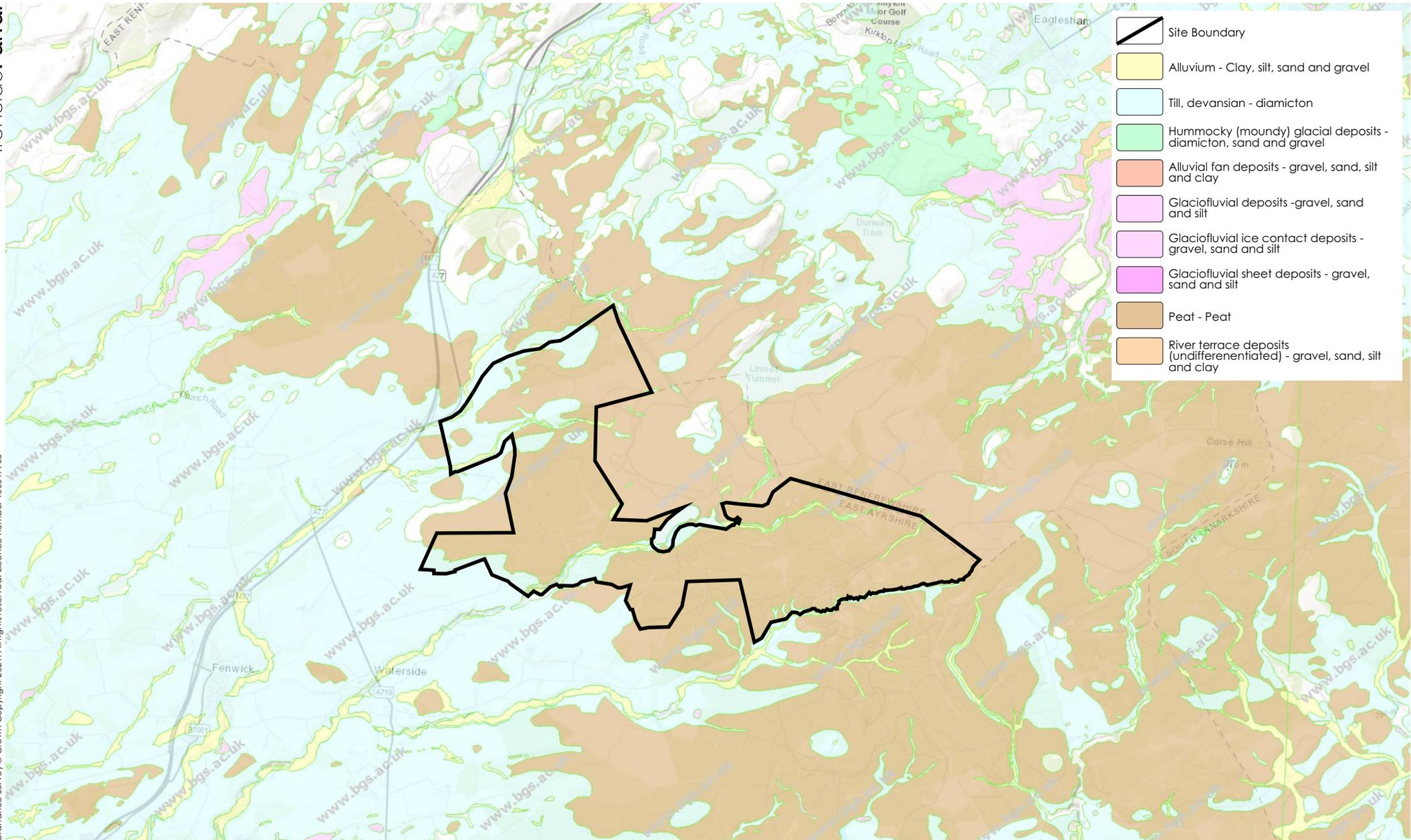
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0 2.0km

Job No. 50762

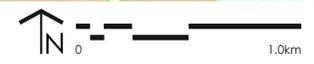
FIGURE 2 BSG SUPERFICIAL GEOLOGICAL PLAN

Ironsides Farrar



-  Site Boundary
-  Alluvium - Clay, silt, sand and gravel
-  Till, devansian - diamicton
-  Hummocky (moundy) glacial deposits - diamicton, sand and gravel
-  Alluvial fan deposits - gravel, sand, silt and clay
-  Glaciofluvial deposits - gravel, sand and silt
-  Glaciofluvial ice contact deposits - gravel, sand and silt
-  Glaciofluvial sheet deposits - gravel, sand and silt
-  Peat - Peat
-  River terrace deposits (undifferentiated) - gravel, sand, silt and clay

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FIGURE 3 CARBON AND PEATLAND PLAN

