

Date: 23 January 2024

Ref: LF000009-CST-OF-LIC-LET-0028

Seagreen Wind Energy Limited
c/o SSE plc
1 Waterloo Street
Glasgow
G2 6AY

Kate Taylor
Marine Licensing Casework Officer
Marine Directorate
Marine Laboratory
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Dear Kate,

**Seagreen Alpha and Bravo Offshore Wind Farms - Offshore Transmission Assets
Application to vary Marine Licence MS-00010467**

This letter constitutes an application by Seagreen Wind Energy Ltd ('Seagreen' hereafter) to vary the Offshore Transmission Assets (OTA) Marine Licence (ref. MS-00010467) ('the ML' hereafter) associated with the Seagreen Alpha and Bravo Offshore Wind Farms.

Variation Sought

Amendment of the fourth paragraph of section 2.2 ('Description of the Development') of the ML to read as follows:

*There will be up to 3 export cable trenches between the development area and the landfall point laid out within the export cable corridor, with a maximum total length of 190 kilometres ("km"). An ~~estimated~~ maximum of **24%** (**45** km) will require rock armoured or concrete mattress protection.*

This variation will ensure the licence reflects the total as-laid length of rock protection and will be consistent with the approved OTA Cable Plan for the development (as required by condition 3.2.2.10 of the ML).

Consenting History

A Marine Licence was granted to Seagreen Alpha Wind Energy Ltd and Seagreen Bravo Wind Energy Ltd on 10 October 2014 under the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009 for the deposition of substances or objects in the sea or on or under the seabed and the construction of works within the Scottish marine area and United Kingdom marine licencing area required in the execution (including construction, operation and maintenance) of the OTA.

Since the Marine Licence was granted, it has on application by SWEL, been varied on a number of occasions. Most recently, on 29 November 2023, the Marine Licence was varied to reduce the number of OSPs authorised under the licence from five to two. This application was determined in conjunction with an application submitted by Seagreen 1A Ltd to vary its offshore export cable Marine Licence, inserting provision for two OSPs, thereby allowing the Seagreen 1A Project OTA to be developed and

constructed independently of the now-completed Stage 1 OTA. Furthermore, these variations facilitate the transfer of the Stage 1 OTA to an Offshore Transmission Owner (OFTO) in accordance with the requirements of the Energy Act 2004.

Background to Variation

Condition 3.2.2.10 of the ML states that:

“The Licensee must, no later than 6 months prior to the Commencement of the Works, submit a CaP [Cable Plan], in writing, to the Licensing Authority for their written approval...”

The CaP (LF000009-CST-OF-PLN-0009, Rev03) was initially approved and the condition discharged on 18 November 2020. This revision of the CaP stated that, *“It is estimated that for approximately 10% [19km] of the subsea export cables the target burial depth may not be achievable”* and that, *“In locations where target burial depth is not achieved cable protection (e.g. rock protection) will be required...”*

During export cable installation, it was discovered that seabed soils were, in some places, harder than expected based on pre-construction survey data. Significant challenges were encountered when attempting to bury the export cables to the target burial depth (1m) described in the CaP using the burial methodologies set out in the Construction Method Statement (CMS, as required under ML condition 3.2.2.4). It became evident during export cable installation that the extent of rock armour that would be required to ensure adequate protection of the cables would exceed 19km as described in the CaP.

In parallel, the Cable Burial Risk Assessment (CBRA) for the export cables was re-evaluated based on site-specific data obtained since the CBRA was first prepared. The revised CBRA concluded that a lower minimum burial depth of 0.5m would be acceptable (although a 1m burial would continue to be targeted during burial operations).

To ensure the CaP reflected the emerging construction challenges - and the requirement to lay a greater extent of rock protection than originally envisaged – as well as the updated CBRA, SWEL prepared an updated CaP (Rev06¹) and submitted to MD-LOT for approval on 17 November 2022. CaP Rev06 (at Appendix C) proposed a maximum length of rock protection of ‘approximately 41.5km’. Following consultation with relevant stakeholders, approval of the updated CaP was granted on 6 February 2023.

The Stage 1 OTA construction works are now fully complete, with the exception of some minor remedial burial works to the cable ducts at landfall. The Stage 1 WTGs are fully commissioned and exporting power via the OTA to the National Grid. SWEL can confirm that the final length of rock protection installed on the export cables was 44.3km which aligns with the ‘approximate’ maximum figure set out in CaP Rev06.

On 20 December 2023, MD-LOT notified SWEL that since the parameters set out in the CaP cannot exceed what is stated on the ML, SWEL should submit a marine licence variation application to ensure the rock protection extent specified in the ML reflects the CaP and the as-built situation. This letter therefore constitutes the requested application.

¹ Note that the CaP was revised on other occasions for purposes not related to the rock protection extent

Rationale for Variation Sought

The requested changes to the ML are set out in 'Variation Sought' section above. The maximum total length of export cables should read 190km to reflect the as-built length. Note that SWEL does not consider a change to the authorised deposits section 2.4 to be necessary since the maximum permitted quantity of cable also allows for an interconnector cable, should that option be exercised in future.

44.3km of rock protection was laid on the export cables. SWEL suggests amending section 2.2 to allow 45km of rock protected cable, to cover minor remedial rock placement that may be necessary in case of cable exposures identified during operations phase monitoring and post-completion surveys. The percentage figure suggested is calculated accordingly.

Environmental Assessment

The original project Environmental Statement assumed that 5% of the export cables would require rock protection. At the time of writing, up to six export cables were proposed (total length 530km). The project design envelope upon which the project consents and licences were granted therefore included a maximum of 26.5km of rock protection.

This application is for a retrospective change to the ML to ensure alignment with the approved CaP. It is therefore considered that an assessment of compliance with the ES has been undertaken and that all relevant consultees (as determined by MD-LOT) had the opportunity to comment on any impacts associated with the increased extent of rock protection. SWEL provided full responses to the consultation comments received prior to approval. However, for the avoidance of doubt, SWEL do not consider increasing the licensed extent of rock protection from 26.5km to 45km changes the ES conclusions of 'negligible' impact. In particular, it should be noted that:

- Rock protection provides similar levels of shielding from cable-induced electro-magnetic fields (EMF) as direct burial. Increasing the extent of rock protection does not affect the overall EMF emissions from the export cables
- Rock protection is laid in areas where burial is not possible due to hard/rocky seabed substrates and therefore does not represent a significant change in the substrate or habitat type in these areas
- SWEL sought to minimise the extent of rock protection required by revisiting the CBRA and rebalancing the requirement to provide adequate protection of the cables against the potential environmental impacts (including on other users of the sea). Rock protection was only laid where necessary to achieve adequate protection
- An overtrawl survey has been conducted, in co-operation with the Scottish Fishermen's Federation. No snagging or other negative impacts were encountered and the results have been shared with fisheries representatives
- Areas of Annex I habitat identified through pre-construction surveys were avoided during cable installation

- The magnitudes of all impacts associated with cable installation have been reduced significantly compared to the envelope assessed in the original ES through the installation of three, rather than six, offshore export cables

Other matters

As confirmed via the Transportation Audit Reports (TARs) submitted in accordance with condition 3.2.3.4 (most recent TAR ref LF000009-CST-OF-MAN-LET-0017), a total of 35,659m³ of stone, rock or gravel has been deposited under the ML – mostly to provide protection to the offshore export cables – against a licensed limit of 435,000m³. SWEL therefore remains in compliance with the deposits limits despite the increase in rock protection extent.

The construction works are complete except for minor duct burial remedial works at landfall which is to be undertaken in spring 2024 under the 'Alternative Landfall Methodology Marine Licence' (MS-00010567) which authorises open-cut trenching at landfall, as an alternative to horizontal direct drilling specified in the ML.

I trust this letter provides all the information necessary for MD-LOT to determine a variation to the ML and we look forward to your positive response.

Yours sincerely,



Ellie Noble
Consents Team Manager
For and on behalf of
Seagreen Wind Energy Limited