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DIRECTION UNDER PARAGRAPH 9 OF AMENDED STANDARD CONDITION E12-J4 OF THE OFFSHORE TRANSMISSION LICENCE

Whereas:-

1. Diamond Transmission Partners Hornsea Two Limited (the **Licensee**) is the holder of an offshore transmission licence (the **Licence**) granted under section 6(1)(b) of the Electricity Act 1989 (the **Act**).
2. Unless otherwise defined, capitalised terms in this Direction and its annex shall have the same meaning given to them in the Licence.
3. In accordance with Paragraph 9 of Amended Standard Condition E12-J4 (the **Condition**):
 - (a) the Licensee considers that the events causing the Transmission Service Reductions on the Licensee's Transmission System that occurred between 23 March to 20 June 2024 was wholly or partially caused by an Exceptional Event (as defined in Amended Standard Condition E12-A1 of the Licence);
 - (b) the Licensee notified the Gas and Electricity Markets Authority (the **Authority**) of the reduction in system availability within the 14-day period required by the Licence;
 - (c) the Licensee has provided details of the reduction in system availability that the Licensee considers resulted from the Exceptional Event and further information requested by the Authority; and
 - (d) the Authority is satisfied, for the reasons specified in Annex 1 to this direction, that the event notified under sub-paragraph (b) above constitutes an Exceptional Event.
4. The Authority has considered the information provided by the Licensee and the report from an independent examiner, RINA Tech UK Limited, who undertook root cause analysis of the fault. Based on the evidence provided, our conclusion is that the root cause of the event was beyond the reasonable control of the Licensee.

5. The Licensee conducted the relevant testing prior to the fault, which did not detect any issues. As such, the Licensee could not have reasonably identified the fault in the absence of clear outward signs of distress prior to the Transmission Service Reductions occurring. We therefore consider that the claim constitutes an Exceptional Event within the terms of the Licence and our revised open letter of 4 January 2024 (the **Open Letter**) on the evaluation of Exceptional Events.¹
6. In accordance with Paragraph 10 of the Condition, the Authority is satisfied, for the reasons specified in Annex 1 to this direction, that the Licensee took steps to manage the impact of the event on the availability of services.
7. The Authority gave the required notice in accordance with Paragraph 11 of the Condition to the Licensee on 15 November 2024 (the **Notice**).
8. In its representations, submitted 6 January 2025, the Licensee reflected some minor changes; these have been reflected in Annex 1.

Now therefore:

9. The Authority directs that the Licensee's reported system incentive performance be adjusted to offset the full duration of the outage: reported system incentive performance for incentive year 2 will be increased by a combined total of 136,241 MWh to fully offset the impact of this event.

This direction constitutes notice pursuant to section 49A(1)(c) of the Act.

Yours sincerely,



Yvonne Naughton
Head of OFTO Licensing and Compliance

Duly authorised by the Authority

¹ Link to [Open letter on the Authority's approach towards Exceptional Events for offshore transmission owners \(OFTOs\) | Ofgem](#) (4 January 2024)

ANNEX 1

THE AUTHORITY'S DECISION ON AN EXCEPTIONAL EVENT CLAIM SUBMITTED BY DIAMOND TRANSMISSION PARTNERS HORNSEA TWO LIMITED UNDER AMENDED STANDARD CONDITION E12-J4

1 Notification

- 1.1 On 3 April 2024, Diamond Transmission Partners Hornsea Two Limited (the **Licensee**) notified the Authority that there had been a Transmission Service Reduction on offshore export cables. The Transmission Service Reductions ran from 23 March 2024 to 20 June 2024. Transmission services were fully restored on 20 June 2024.
- 1.2 The Licensee submitted an Exceptional Event claim to the Authority on 10 October 2024.

2 Exceptional Event requirements

- 2.1. Paragraph 9 of Amended Standard Condition E12-J4 Condition (the **Condition**) provides that the Authority shall adjust the value of the monthly capacity weighted unavailability to offset the impact of an Exceptional Event where:
 - a) the licensee considers that an event on its Transmission System that causes a Transmission Service Reduction has been wholly or partially caused by an Exceptional Event;
 - b) the licensee has notified the Authority that a possible Exceptional Event had occurred, within 14 days of its occurrence;
 - c) the licensee has provided such information as the Authority may require in relation to the event; and
 - d) the Authority is satisfied that the notified event is an Exceptional Event.
- 2.2. An Exceptional Event is defined in Amended Standard Condition E12-A1 of the offshore transmission licence as follows:

"an event or circumstance that is beyond the reasonable control of the licensee and which results in or causes a Transmission Service Reduction and includes (without limitation) an act of God, an act of the public enemy, war declared or undeclared, threat of war, terrorist act, blockade, revolution, riot, insurrection, civil commotion, public demonstration, sabotage, act of vandalism, fire (not related to weather), governmental restraint, Act of Parliament, any other legislation, bye law, or directive (not being any order, regulation or direction under section 32, 33, 34 and 35 of the Act) or decision of a Court of Competent Authority or the European Commission or any other body having jurisdiction over the activities of the licensee provided that lack of funds shall not be interpreted as a cause beyond the reasonable control of the licensee. For the avoidance of doubt, weather conditions which are reasonably expected to occur at the location of the event or circumstance are not considered to be beyond the reasonable control of the licensee."

3 Decision

- 3.1 The Licensee has acted in accordance with the requirements of subparagraphs 9(a) to (c) of the Condition. Pursuant to subparagraph 9(d) of the Condition, the Authority is satisfied that the event is an Exceptional Event, for the reasons set out below.

4 Reasons for decision

- 4.1 The Authority has considered the information provided by the Licensee in respect of this event against both the Licence and the Open Letter.²
- 4.2 The Transmission Service Reductions running from 23 March 2024 to 20 June 2024 occurred due to a series of de-ratings and full outages to export cable Circuit 1, Circuit 2 and Circuit 3; necessary to regulate temperature of the Cable Sheath Clamps.
- 4.3 For Circuit 1, the series of de-ratings commenced on 23 March 2024, for Circuit 2, the series of de-ratings commenced on 24 March 2024, and for Circuit 3, the series of de-ratings commenced on 29 March 2024.
- 4.4 The Cable Sheath Clamps were repaired by the original equipment manufacturer;
- a) Circuit 1 was returned to full availability on 20 June 2024 at 15:25;
 - b) Circuit 2 was returned to full availability on 10 June 2024 at 11:18, and
 - c) Circuit 3 was returned to full availability on 18 June 2024 at 12:15.
- 4.5 As a result of the de-ratings and full outages, there was a total Transmission Service Reduction totalling 225 days, 4 hours and 54 minutes. The total MWhr impact reported to Ofgem in the Licensee's quarterly availability report (submitted on 12 July 2024) was an annual weighted unavailability of 136,241 MWhrs. Table 1 sets out the various De-ratings in more detail.
- 4.6 The Licensee submitted a root cause analysis report that states that a high electrical resistance at the connector interface, due to inadequate design, materials or installation, combined with high circulating currents (probably, but not necessarily, above the screen connector's designed maximum continuous current of 165 A) was considered to be the most likely root cause of the observed overheating and it is clear from the RINA report that the relevant triggers that led to the Defects occurred prior to asset transfer, i.e. design, materials or installation, including the rating of the earth sheath clamp which was not adequate for the actual earth sheath current. If not remediated these defects would have led to failure of the export cable.
- 4.7 In summary the Licensee considers that the event was beyond their reasonable control as:
- a) The available information from the windfarm developer prior to asset transfer did not contain any manufacturing and installation records which would have indicated any technical or design issues with the cable and cable screen clamp. Furthermore, the Licensee explained that it is "not normal or expected that the rating, or dimensions of subcomponents would be provided by either the cable manufacturer or the supplier of the subcomponent. As such the rating of the cable earth sheath clamp and size was not known or available during DTPHT's due diligence."
 - b) There was no indication that the Developer was aware that the earth sheath clamps had any design or installation defects. As such, the Licensee considers that they could not have reasonably known or acted to prevent the Transmission Service Reduction.
- 4.8 The Licensee considered that de-ratings (causing partial outages) were necessary to prevent overheating of the Cable Sheath Clamps. This view is supported by the

² [Update to open letter on the Authority's approach towards Exceptional Events \(ofgem.gov.uk\)](https://www.ofgem.gov.uk/open/letter-to-the-sector/exceptional-events/)

root cause analysis report. The Licensee considers that replacement of the Cable Sheath Clamps (thus requiring full outages) was a necessary step in order to remove the de-ratings.

- 4.9 The Licensee believes that since asset transfer, they *"had adequate systems, plans and processes in place to monitor the operation of the transmission assets including distributed temperature sensing monitoring. These systems and processes did not indicate that there were any defects."*
- 4.10 The Licensee also conducted maintenance on the export cable, and found no defect was indicated in any of the maintenance reports.
- 4.11 We consider, supported by our engineers, the event is beyond the reasonable control of the Licensee because:
- a) the cause of the Transmission Service Reduction (design issues with the Cable Sheath Clamps) occurred pre-asset transfer, during the construction phase. Due diligence did not reveal any issues with the installation of the Cable Sheath Clamps;
 - b) the Licensee could not have foreseen the event when the assets were transferred to it. In response to an event on the Hornsea One offshore transmission system on 19 January 2021, the Licensee implemented 24/7 thermal monitoring on the Hornsea Two offshore transmission system and discovered that the incorrect design regarding the Cable Sheath Clamps was also present in the Export Cables;
 - c) the Licensee therefore needed to de-rate the Export Cables to ensure they do not fail due to overheating of the Cable Sheath Clamps as a result of incorrect design, materials or installation (which risks insulation damage to the cables); and
 - d) annual RFI and thermography testing conducted by the Licensee did not yield any anomalies. Our engineers have advised us that this constitutes Good Industry Practice in terms of detecting cable defects associated with this claim. Therefore, we are satisfied that there was not anything that could have reasonably been done by the Licensee to identify the issue.
- 4.12 In summary, we agree with the Licensee's conclusions. On the balance of information provided by the Licensee, we believe the Cable Sheath Clamps were not fit for purpose. Due to their design issues, the Cable Sheath Clamps could not handle the current through the Export Cables during periods of high load. Ultimately, this resulted in the Licensee taking de-ratings to avoid overheating, and the Licensee taking an outage to facilitate repairs and replacement. We deem these actions to be necessary and the underlying cause as beyond the Licensee's control.
- 4.13 We consider that the Licensee acted in accordance with Good Industry Practice to manage the impact of the event and restore transmission services to full capacity.
- 4.14 Accordingly, the Authority is satisfied for the purposes of paragraph 9(d) of Amended Standard Condition E12-J4 that the Transmission Service Reduction was an EE. Our recommendation is to offset the full duration of the outage.

Table 1: Details of Partial and Full Outages:

Partial outages (de-ratings) conducted on Circuit 1	Partial outages (de-ratings) conducted on Circuit 2	Partial outages (de-ratings) conducted on Circuit 3
23 March (12:30 – 13:14)	24 March (14:20) – 4 June (12:19)	29 March (14:58 – 16:34)
28 March (18:25 – 19:30)		10 April (00:30 – 06:13)
28 March (23:19) – 10 June (11:19)		11 April (06:30 – 09:30)
		11 April (11:40 – 17:10)
		12 April (11:40 – 13:30)
		12 April (14:40) – 14 June (11:03)
Full outages (repairs) conducted on Circuit 1	Full outages (repairs) conducted on Circuit 2	Full outages (repairs) conducted on Circuit 3
10 June (11:19) – 14 June (11:03)	4 June (12:19) – 10 June (11:18)	14 June (11:03) – 18 June (12:15)
18 June (12:15) – 20 June (15:25)		