

Offshore Wind Farm

# Further Information on Socio-Economic Impacts on vessels to/from Tidal Thames

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## **Glossary of Acronyms**

ALARP	As Low as Reasonably Practicable
CBRA	Cable Burial Risk Assessment
DCO	Development Consent Order
DWR	Deep Water Routes
ES	Environmental Statement
HAZOP	Hazard and Operability (HAZOP) workshop
ННА	Harwich Haven Authority
LGPL	London Gateway Port Limited
OCC	Offshore cable corridor
oCSIP	Outline Cable Specification Installation Plan
oSDMP	Outline Sediment Disposal Management Plan
oNIP	Outline Navigation and Installation Plan
PLA	Port of London Authority

#### 1 Introduction

- This document presents further clarity of the Projects ('North Falls Offshore Wind Farm (OWF)') socio-economic impacts on the Port of London (PLA) and the tidal Thames which relate to the navigation safety impacts identified within Environmental Statement (ES) Chapter 15 Shipping and Navigation [APP-029]. Chapter 31 Socio-economics assessment looks at wider economic effects from disruption to shipping and navigation activities [APP-045] and this note aims to provide clarity on impacts assessed within both Chapters (15 and 31) by focusing on the potential temporary and permanent socio-economic impacts of works intersecting the Deep Water Routes (DWRs) which provide access into the Thames.
- 2. This document address comments from the Port of London Authority (PLA) Written Representation [REP2-056], [REP6-091] and [REP6-092], and the Examining Authority Question 3 [PD-016].

#### 2 Description of Deep-Water Routes

3. There are two recommended and charted DWRs into the berths, terminals and jetties within the tidal Thames – the Sunk DWR and the Trinity DWR. Given the location of the Project and the Grid connection point, the Project Offshore Cable Corridor (OCC) crosses both DWRs. Such crossings are unavoidable due to the geographical locations needing to be connected, as evidenced by Five Estuaries also crossing both DWRs within their application. The crossings are shown in DWR Cable Installation Areas (Future Dredging Depths) Plan [Rev 1, REP6-055].

#### 3 Identified Potential Impacts within the Application

#### 3.1 Construction Phase

- 4. Chapter 15 [APP-029] identifies and assesses the impact relating to 'reduced port access' created by the process of installation of the cables across the DWRs and around the Sunk Pilotage Area. This is a temporary effect on these areas.
- 5. The temporary effect is identified as installation of the cables across the DWR preventing deep draughted vessels from potentially being unable to navigate the DWR or around the Sunk Pilotage Area to access the berths, terminals and jetties within the tidal Thames.

#### 3.2 Operation and Maintenance Phase

6. Again Chapter 15 [APP-029] identifies and assesses an impact relating to 'reduced port access' created by the presence of cables laid beneath the DWRs and around the Sunk Pilotage Area. This is a permanent effect.

- 7. The permanent impact is identified as the final installation depth of cables limiting the ports activities by the presence of cables constraining the future depth to which the DWR could be dredged and hence the sizes of vessel that in future can access these same berths, terminals and jetties within the tidal Thames.
- 8. The assessment within Chapter 15 concluded that during the construction phase effects relating to vessels transiting to/from local ports in the area, including use of approach channels, port operations and pilotage were Tolerable and As Low As Reasonably Practicable (ALARP) (not significant) and for the operation phase were also Tolerable and ALARP (not significant)

#### 3.3 Socio Economics Effects

- 9. Chapter 31 Socio Economics [APP-045] used Chapter 15 [APP-029] and the Navigation Risk Assessment [APP 106-108] to consider impacts associated with the Economic value of local ports including potential for:
  - Delays and congestion;
  - Financial losses:
  - Reputational risk;
  - Supply chain disruption; and
  - Increased operational costs.
- 10. The assessment within Chapter 31 concluded that during the construction phase wider economic effects from disruption to shipping and navigation were of *minor adverse (not significant)* and for the operation and maintenance phase were also *minor adverse (not significant)*.

### 4 Mitigations

11. The following mitigations have been included within the certified plans and/or secured within the Development Consent Order (DCO):

#### Draft Development Consent Order

As per Requirement 2(3), the primary mitigation measure in this respect is the requirement to design, install, maintain and operate the cables deeper at sufficient depths, as agreed with the ports, so as not to preclude or impede the future use of the DWR by large vessels. The locations of these deeper burial areas are shown 9.57 Deep Water Route Cable Installation Areas (Future Dredging Depths) Plan [REP6-055]. These areas have been agreed with the PLA, London Gateway Port Limited (LGPL) and is in final discussion with Harwich Haven Authority (HHA).

Additionally, whereas generally cable protection may reduce water depths by up to 5%, this does not apply in the areas identified in 9.57 Deep Water Route Cable Installation Areas (Future Dredging Depths) Plan [REP6-055] (see Condition 13(3)).

#### Promulgation of Information

As required by the DCO and deemed Marine Licence, notifications ("Notifications and Inspections") will be promulgated at defined times to ensure all users are informed of works.

#### Cable Burial Risk Assessment (CBRA)

Ensures that the cable is buried and / or protected as required along the Export Cable Route noting specific agreements in the outline Cable Specification installation Plan (oCSIP) [REP6-051] in relation to the DWRs and Sunk Pilot Station areas.

#### Outline Navigation and Installation Plan (oNIP)

The oNIP [REP6-039] ensures access via at least one DWR is maintained by managing concurrent working across multiple projects (North Falls, Five Estuaries and SeaLink). This will ensure continuous access to the PLA avoiding full closures.

The oNIP also requires protocols and actions to be implemented for project vessel activities including notifications, management of weather constraints and contingency plans. Hazard and Operability (HAZOP) workshop will ensure all factors are discussed including tidal windows.

#### Outline Cable Specification Installation Plan (oCSIP)

To prevent a reduction in water depth, the oCSIP [REP6-051] prevents boulders and archaeological finds being relocated into or within the DWRs or around the Sunk Pilotage Area.

To minimise disruption, the requirement to route as far south as practicable within the RLB in and in between the two DWRs has been included to minimise interactions between construction activities and day-to-day shipping operations.

Short duration of disruptive activities noting that the deeper depths required increase installation time. Activities like cable laying, dredging, and excavation are planned to last only a few hours to a maximum of 2 days once commenced. This will minimise delays and congestion. As noted under the oNIP contingency plans will be in place should weather (for example) prevent the installation commencing.

#### Outline Sediment Disposal Management Plan

The outline Sediment Disposal Management Plan (oSDMP) [REP6-049] ensures no disposal of any sediment within, or where it could migrate to the areas shown on Deep Water Route Cable Installation Areas (Future Dredging Depths) Plan.

- 12. The following mitigations are inherent within the design and construction process of the project, and need further discussion when further details are known regarding these, such as specific vessels being used:
  - Routeing

Surveys inform optimal routeing and installation techniques. This will reduce the chance of unexpected delays or hazards, supporting smoother construction and fewer economic disruptions and will be discussed as part of the oNIP process.

#### Survey and shorter timeframe activities

Shorter timeframe activities, such as surveys could adjust their sequence of activities so that sensitive locations are carried out in appropriate windows e.g. low tide. This is needed due to the tidal ranges at the nearshore limiting windows of operation in nearshore areas.

#### Dredging

To facilitate the deeper burial, dredging may be required. Such an activity will have natural windows where the dredging vessel will move off station e.g. to deposit material when the hopper is full, and could be coordinated with the ports as needed. The exact windows can be discussed during detailed design with the vessel contractor to limit impacts.

#### Weather windows

Due to the length of the cable route, cable laying and burial does not normally take more than a few weeks per activity. Therefore, these activities tend to be carried out in summer, when there is less chance of weather disruption.

#### 5 Port of London

13. The PLA (and associated berths, terminals and jetties within the tidal Thames) was not specifically detailed within Chapter 31 given that impacts identified within Chapter 15 were ALARP (not significant) and that wider socio-economic effects were also not significant with mitigations in place. There were no pathways identified for significant effects associated within the Port of London noting that the PLA has two DWRs which can be used for the majority of vessel transits. For clarity further detail is given below as to why impacts are identified as not significant for the PLA.

#### 5.1 Construction Phase Impacts Associated with the Port of London

- 14. As requested by the PLA, the Project has agreed to bury the cables to specified depths to ensure it allows for future case dredging for deeper draught of vessels to enter the port. The increased depth agreed does create time / speed constraints for vessels laying the cable i.e. deeper burial is slower or requires additional activities such as dredging. Given the draught of vessels transiting through each DWR, the impact when working on the Sunk DWR route is more significant than those on the Trinity DWR.
- 15. However extensive mitigation has been provided by the Project to minimise this impact, acknowledging the criticality of the ports as identified in paragraphs 11 and 12.

- 16. The Project, through co-ordination with other projects, and the flexibility of its contractors, will minimise its impacts by ensuring one DWR is always clear for vessel transits including when multiple projects are working concurrently within the areas of interest (oNIP). Minimising the impact of such activities requires careful planning (mitigation measures contained in the CBRA and oCSIP) and execution (e.g. communication with the interested parties as required by the oNIP and promulgation of information requirements committed to in the wider DCO).
- 17. With reference to the Applicant's response [REP5-054] to Q7.04 (ii), the Applicant stated "the expected time for crossing the port channels with the cable burial tool will be of the order of 1.5-2 days". However, for clarity, this time frame is indicative and based on current surveys. Once further detail is identified post consent further clarity will be provided to the PLA and operations will be discussed as part of the oNIP process which includes Hazardous Operation (HAZOPs) to ensure any contingency required is identified and discussed with relevant stakeholders including the PLA.
- 18. Because of the mitigation measures to ensure that at least one of the DWRs is always accessible and that construction methods are fully discussed with the relevant stakeholders including the PLA the impact on the ports is concluded as not significant post mitigation.

# 5.2 Operation and Maintenance Phase Impacts Associated with the Port of London

- 19. The primary mitigation measure in this respect is the requirement to bury and maintain the cables at sufficient depths, as agreed with the ports, so as not to preclude or impede the future use of the DWR by large vessels. This has been committed to by the Applicant via Requirement 2(3) of the draft Development Consent Order [REP6-005]. Further measures to prevent a reduction in water depth e.g. preventing relocation of boulders, archaeological finds within the DWRs and Sunk Pilotage Area and preventing disposal of material where it can migrate into the DWRs and Sunk Pilotage Area is covered within the oCSIP [REP6-055] and the oSDMP [REP6-049].
- 20. Because of the mitigation measures to ensure the water depth in the critical areas is maintained, the permanent impact on the ports is concluded as not significant.

#### 6 Overall Socio-economic Conclusion

21. Given the location of the Project and its assigned connection point, some impact on the DWRs used to access the Thames was inevitable and unavoidable. The Project has mitigated this through burial depth commitments and co-ordination with relevant stakeholders of other Projects of relevance in the area.

- 22. The Project is and will be continually working with the ports to minimise its impact, given their significance to the UK economy, whilst also ensuring the Project can deliver on the requirements of delivering greener energy.
- 23. Given the temporary nature and duration of the impact and the mitigations proposed, including the oNIP, the temporary impact on the PLA is deemed not significant. The permanent impact is also deemed not significant as the project export cables will not be the limiting factor in the size of vessels that can enter the ports.
- 24. The cumulative impact of the Project, Five Estuaries OWF and SeaLink on the PLA is also identified as *not significant* as per the in-isolation impact because of the co-ordination secured within the oNIP, the separation of consent boundaries of the respective projects and the common burial depth commitments agreements between the Project and Five Estuaries OWF when crossing the DWRs.
- 25. Decommissioning impacts will be discussed and managed through the oNIP process and in line with any consent requirements.





#### HARNESSING THE POWER OF NORTH SEA WIND

North Falls Offshore Wind Farm is being developed on a site more than 20 kilometres off the UK coast in the southern North Sea and covers a total area of 150 km². It is an extension project to the adjacent 504 megawatt Greater Gabbard Offshore Wind Farm, opened in 2013.

It is being developed by a joint venture company owned equally by SSE Renewables and RWE.

The project is in a very early phase so there are limited details, however if you would like to contact the project team please email contact@northfallsoffshore.com

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