

# **Vattenfall Wind Power Ltd**

## **Thanet Extension Offshore Wind Farm**

### **Appendix 45 to Deadline 1 Submission: Removal of Landfall Option 2**

Relevant Examination Deadline: 1

Submitted by Vattenfall Wind Power Ltd

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# 1 Introduction

## 1.1 Landfall option 2 - background

- 1 An above ground landfall option in the design envelope (option 2 as described in paragraph 1.5.8 of the Onshore Project Description (PINS Ref APP-057/ Application Ref 6.3.1)) was included in the application to potentially allow for the avoidance of working within the known municipal landfill at Pegwell Bay Country Park, having regard to considerations including costs, timescales and the extent of primary data to corroborate existing geotechnical information. This would have involved a permanent extension of the seawall to allow cables to be brought up from the intertidal area and installed in an above ground berm, avoiding the landfill as far as practicable.
- 2 Acknowledging the concerns raised by stakeholders about an above ground option and in response to feedback from Section 42 consultation, the Applicant introduced two other landfall installation methodologies in the final application that would facilitate a below ground solution. Option 1 (as described in paragraph 1.5.7 of the Onshore Project Description chapter) would involve a Horizontal Directional Drill (HDD) from the country park to the intertidal area, with cables buried underground from the HDD entry point. Option 3 (as described in paragraph 1.5.9 of the Onshore Project Description chapter) would require trenching up to the seawall and installing a temporary cofferdam at landfall in order to continue trenching through the country park.
- 3 Although a substantial body of ground information exists for the Country Park more broadly, the Applicant has sought to obtain further information more closely aligned with indicative routes through on-site surveys. Despite the Applicant's best endeavours, access has not been provided to undertake the relevant surveys (see Section 2). It is uncertain whether site investigation would be completed and reported on within the confines of the examination timetable.
- 4 However, as set out below, the Applicant considers that there is sufficient information to assess the below-ground options and it has been made clear to stakeholders throughout 2018 that the Applicant has been seeking to reduce optionality where feasible in order to address concerns, in particular those expressed by Natural England regarding option 2 which relate to the permanent loss of saltmarsh. With these considerations in mind, the Applicant proposes to remove option 2 from the ground landfall options.

## 1.2 Decision to remove landfill option 2

- 5 Following the receipt of relevant representations, further ongoing discussions with stakeholders, internal review of the project including costs, timings and available information associated with burial of infrastructure within the landfill, the Applicant proposes to remove landfill option 2 from the project envelope.
- 6 This decision has been made notwithstanding the absence of project-specific primary site investigation data. The Applicant considers that the existing geotechnical data (as set out in Appendix B – H of the Ground Conditions, Flood Risk and Land Use ES chapter (PINS Ref APP-115/ Application Ref 6.5.6.1.3)), which provides details of the expected composition and stratigraphy of the landfill, is adequate for the purposes of characterisation and proposes mitigation which is sufficient to address any potential effects arising from the disturbance of any other potential landfill material, including more hazardous material which requires a more costly and lengthy process to remove and dispose of correctly.
- 7 It should be noted that the site investigations proposed by the project are, in effect, pre-construction surveys that were being brought forward pre-consent to inform the design process. It is entirely common for projects to progress through to consent in the absence of full site investigation, including in areas of contaminated land where a risk-based approach is taken and suitable controls and mitigation identified.

## 1.3 Materiality

- 8 The removal of option 2 does not affect the outcomes of the Environmental Statement as option 2 was one of 3 landfill options, each of which have been considered, with the likely worst case scenario then being brought forward for detailed assessment. As such in the absence of option 2 all effects will be, at worst, the same as assessed in the ES and in many cases reduced. The implications for all relevant ES chapters will be set out at Deadline 2.
- 9 No additional land is required following the removal of option 2 and the order limits are not proposed to be altered at the landfill. However the compulsory acquisition rights will be amended in the area of the landfill such that freehold acquisition (as was required for a permanent extension of the seawall associated only with option 2) will be replaced with the acquisition of permanent rights. The property rights being sought are therefore less extensive than envisaged at the time of the application. The proposed amendment involves no new additional land and does not involve any significant re-writing of the order. This will be further set out at Deadline 2.

- 10 The Applicant has been mindful of the examination timetable in making this decision at Deadline 1, such that sufficient time is available for all interested parties to comment on this amendment at future deadlines and at issue specific hearings.
- 11 In summary the Applicant does not consider that this is a material change to the application and that interested parties will not be prejudiced in their ability to comment on this amendment.

## 2 Land access

- 12 The area of Pegwell Bay Country Park with the Order Limits is owned by Kent County Council and the majority of it is leased to Kent Wildlife Trust. As the managing authority for the National Nature Reserve with encompasses Pegwell Bay Country Park, Kent Wildlife Trust issue licences for survey access, in addition to any landowner consent required.
- 13 In late 2017 the Applicant informed both KCC and KWT of the desire to undertake site investigation and made this request in several meetings in early 2018 and through an email to the responsible person for issuing permits on 13 March 2018. A letter formally requesting access to the site was sent to KWT's land agent on 8 June 2018.
- 14 The need to undertake surveys to inform project design has been supported by a number of stakeholders including KCC, Environment Agency and Natural England. Whilst the principle of allowing access was agreed with KCC, KWT informed the Applicant that it would not be issuing survey permits to the NNR for these works.
- 15 It is of note that Natural England, in providing support for the surveys, also provided confirmation that the surveys would not result in an adverse effect on integrity (on European sites that sit within the area of the proposed survey) or a hindrance to conservation objectives (for Sites of Special Scientific Interest that also sit within the area of the proposed survey).
- 16 The original intention had been to undertake the surveys in summer 2018 and the Applicant continued to seek voluntary access with KWT throughout this time without success. As such an application for compulsory rights of access for surveys was made to the Planning Inspectorate under Section 53 of the Planning Act 2008 on 17 September 2018.
- 17 On 4 October 2018 the Applicant was contacted via email by KWT's land agent stating that access would be granted for the surveys. Following this response and with the desire to seek a voluntary form of agreement over compulsory rights, the Applicant asked PINS to put the Section 53 process on hold. A form of licence which included mitigation, reinstatement and notification provisions was sent to KWT's land agent on the same day, 4 October 2018.

- 18 The survey permit / licence was chased throughout October and November 2018 by the Applicant, with both KWTs land agent and KWT themselves. All indications were that a permit would be issued imminently. On 27 November 2018 an email was received stating that a voluntary permit would in fact not be provided and that if the Applicant wished to access the land then it should pursue such rights via the Section 53 process. On 7 December 2018 the Applicant contacted PINS requesting that the Section 53 process be recommenced.
  
- 19 In summary it is regrettable that access has not been achieved and that the process of acquiring access through Section 53 has been delayed, however these events were outside of the Applicant's control and at all times best endeavours have been used to gain access for these surveys.



### 3 Assessment and further survey

#### 3.1 Existing data

- 20 The existing geotechnical data on the landfill is contained in Appendix B – H of the Ground Conditions, Flood Risk and Land Use ES chapter (PINS Ref: APP-115/ Application Ref 6.5.6.1.3). This contains borehole logs and monitoring reports from across the landfill and represent a robust and detailed characterisation for the purposes of EIA.
- 21 This data is considered to be adequate in characterising the landfill for the purposes of assessment, is summarised in Section 7 of the Ground Conditions, Flood Risk and Land Use ES chapter (PINS Ref APP-062/ Application Ref 6.3.6), and in many respects is more detailed than is the case for other NSIP linear infrastructure projects.
- 22 It is noted therefore that whilst project specific data to refine alignment is the preference, on the basis of the assessment and the existing baseline data, appropriate installation methodologies were proposed, including measures to ensure contamination pathways are controlled, as set out in paragraphs 1.5.11 and 1.5.19 of the Project Description (Onshore) chapter of the ES (PINS Ref APP-057/ Application Ref 6.3.1). Mitigation measures are addressed further below.

#### 3.2 Desk-based assessment

- 23 Further site investigation was proposed to provide more site specific details within order limits to assist with assessing the implications for the project of installing through the landfill. In the absence of this information the Applicant has taken a precautionary approach to assessing likely volumes and costs of landfill and hazardous waste removal and disposal. The desk-based assessment has considered the likely material present (at a municipal landfill) and assumed that all material removed (based on worst-case parameters from the Onshore Project Description) requires specialist disposal. The result of this assessment have given confidence that the project would be viable, taking into account the costs and programme implications of a below ground installation option.

#### 3.3 Further surveys

- 24 The Applicant is continuing to pursue access for site investigation and should this data become available at an appropriate stage of the examination, will provide details of the findings to relevant stakeholders.

- 25 In any case, full site investigation would be carried out pre-construction to inform both detailed design and the final Contaminated Land and Groundwater Plan, as secured through Requirement 19 (Contaminated land and groundwater plan) and in line with the obligations set out in the Code of Construction Practice (PINS Ref APP-133/ Application Ref 8.1).

## 4 Methodology and Mitigation

### 4.1 Landfall installation methodology

- 26 Landfall installation options 1 and 3, as set out in paragraphs 1.3.1 *et seq* of the Project Description (Onshore) ES chapter (PINS Ref APP-057/ Application Ref 6.3.1), remain as set out in the Application. These installation methods include descriptions of the control measures that would be implemented to avoid accidental release of contaminants through the creation of new pathways.
- 27 Option 1 requires the use of Horizontal Directional Drilling (HDD) to bore from the landfill, under the sea wall and out into the intertidal area, beyond the saltmarsh. Whilst measures to avoid the creation of contaminant pathway are set out in the Project Description chapter, the overall viability of an HDD in this area, taking into account the underlying geology, alignment of the cables and location of the entry and exit pits, cannot be confirmed until detailed design has been undertaken.
- 28 Option 3 is a trenched option that would require the installation of a cofferdam at the landfill to control the release of contaminants into the marine environment. As set out in Section 4.2 below, mitigation is secured in the DCO to control both the release of contaminants and the temporary effects on saltmarsh habitat. It is essential that this option is maintained to ensure that a constructible project is consented, in the case that HDD fails or is discounted at the detailed design stage.

### 4.2 Mitigation

- 29 The mitigation proposed in the Application for both option 1 and 3 remain as submitted, and reflect experiences gained by the project engineering team in working in similar environments.
- 30 For example, Vattenfall Wind Power Ltd's project in Aberdeen (European Offshore Wind Deployment Centre) required to carry out civil works for construction of the substation through a former landfill. This was mitigated through employment of competent contractors to handle potentially hazardous waste, and a management plan setting out the steps that would be taken upon encountering materials such as asbestos. Asbestos was located during the course of the project however through careful environmental and safety management and adaptation to the site plans the project successfully completed the construction of substation in a former landfill at Blackdog without incident.

- 31 Measures to control contamination are described in Section 7 of the Code of Construction Practice and this forms the basis of a Contaminated Land and Groundwater Plan, secured as a pre-commencement requirement in the DCO. This ensures that approval is required for the measures to control contamination, regardless of installation option, and that pre-construction site investigation will be undertaken to inform this plan.
- 32 Control measures include:
- Ensuring relevant legislation is followed
  - Undertaking pre-construction site investigation to inform approach to management of contaminated land and the construction methods to ensure control of leachate.
  - Installation of a sealed cofferdam (for option 3) to control release of leachate from the landfill
  - Watching brief during excavation works
  - Testing of water quality and, as required, containment and treatment of contaminated water pumped out of the site.
  - Pre-construction survey for potential asbestos containing materials and removal by a licenced contractor (as required)
- 33 Option 3 requires temporary disturbance to the saltmarsh and in that instance the Saltmarsh Mitigation, Reinstatement and Monitoring Plan (PINS Ref APP-147/ Application Ref 8.13) sets out in detail the approach to minimising impacts and reinstating the saltmarsh post-construction.
- 34 As set out in the Application, the Applicant considers that suitable mitigation is clearly set out and secured to ensure that there would be no adverse effects on both the marine and terrestrial environment.

## 5 Further submissions

- 35 The outline Landscape and Ecological Management Plan (PINS Ref APP-142/ Application Ref 8.7) has been updated and references to option 2 have been removed. This is submitted as Appendix 42 to Deadline 1.
- 36 At Deadline 2, the Applicant proposes to submit the following documents in recognition of the removal of option 2:

**Table 1: Documents to be submitted at Deadline 2**

Document	Contents / amendments
Review of ES chapters	Consideration of the implications of removing option 2 for relevant ES chapters
Draft DCO	Updated DCO to reflect the removal of option 2
Onshore land plans	Update to reflect the change in compulsory acquisition rights at the landfall
Onshore works plans	Updated in accordance with DCO works no's.
Book of Reference	Updated Book of Reference removing freehold acquisition at the landfall
Statement of Reasons	Updated Book of Reference removing freehold acquisition at the landfall
Report to Inform Appropriate Assessment	Will remove reference to impacts associated with option 2, amongst other changes.