

# Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

Supplementary Figures to Scenarios Statement

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	Supplementary	Figures to	Scenarios	Statemen
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## 1 Introduction

- 1. The Applicant submitted the **Scenarios Statement** (document reference 9.28) [APP-314] to provide background to the need for including a range of project development scenarios within the Development Consent Order (DCO) application for SEP and DEP; and to explain how those scenarios are reflected in key application documents including the **Draft DCO** (document reference 3.1) [AS-009] and the **Environmental Statement** (ES) (document reference 6.1) [APP-087 APP-280].
- 2. In the Examining Authority's (ExA) Rule 6 Letter dated 13 December 2022 (republished on 21 December 2022) (the Rule 6 Letter) at Annex F the ExA has requested the submission of additional application documents in pursuit of making the application documents more accessible and readable for Interested Parties, including:
  - 'A coloured flow diagram supporting figures 8-1ff to show the four proposed scenarios (and the infrastructure involved in each scenario)'
- 3. The Applicant has assumed that 'figures 8-1ff' refer to Figures 8-1 8-6 of Section 8 of the **Scenarios Statement** (document reference 9.28) [APP-314]. These figures were provided to depict the main components of infrastructure and demonstrate how the scenarios differ.
- 4. Section 2 of this document provides supplementary figures to the Scenarios Statement which re-present Figures 8-1 8-6 depicting, in different colours, the infrastructure involved in each scenario. This document has not sought to replicate the supporting text and context in Section 8 and therefore should be read alongside the **Scenarios Statement** (document reference 9.28) [APP-314].
- 5. Whilst the scenarios as described in the **Draft DCO** (document reference 3.1) [AS-009] and referred to by reference to specific Works in Schedule 1, Part 1 Authorised Development should be read in conjunction with the **Works Plans (Onshore)** (document reference 2.6) [AS-005] and the **Works Plans (Offshore)** (document reference 2.7) [resubmitted at Procedural Deadline A as 2.7 Revision B], to aid the ExA's and Interested Parties' understanding of the development scenarios the Applicant has also reiterated against each figure below, which Work Nos. each component of infrastructure depicted relates to. This does not list every Work No. as described in the **Draft DCO** (document reference 3.1) [AS-009], but lists the key permanent infrastructure involved in each scenario which the figures seek to depict. Works such as temporary works areas, construction compounds, permanent and temporary accesses are therefore not listed here.



# 2 Supplementary Figures

# 2.1.1 Scenario 1(a)

- 1. **Figure 8-1a** represents Scenario 1(a) as described in the **Draft DCO** (document reference 3.1) [AS-009]:
  - the construction of the **Sheringham Shoal Extension Project only** where the Dudgeon Extension Project does not proceed to construction.

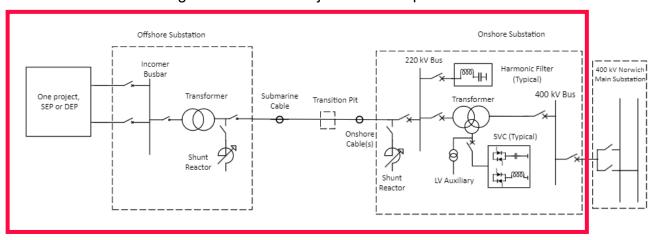


Figure 8-1a: Scenario 1(a) SEP in Isolation – Preliminary Schematic, to be Updated During Detailed Design

#### **SEP Works**

Work No. 1A - SEP WTG array area

Work No. 2A - SEP In-field cables

Work No. 3A - SEP Offshore Substation

Platform

Work No. 4A - SEP export cable

Work No. 5A - SEP export cable

Work No. 7A - Landfall connection works

Work No. 8A - Onshore connection works

Work No. 9A - Onshore connection works

Work No. 12A - Onshore connection works

Works No. 12A – Onshore connection works

Work No. 15A – Onshore HVAC substation

Work No. 16A - Onshore connection works

(to National Grid substation)

Work No. 17A - National Grid substation



# 2.1.2 Scenario 1(b)

- 2. **Figure 8-1b** represents Scenario 1(b) as described in the **Draft DCO** (document reference 3.1) [AS-009]:
  - the construction of the **Dudgeon Extension Project only** where the Sheringham Shoal Extension Project does not proceed to construction.

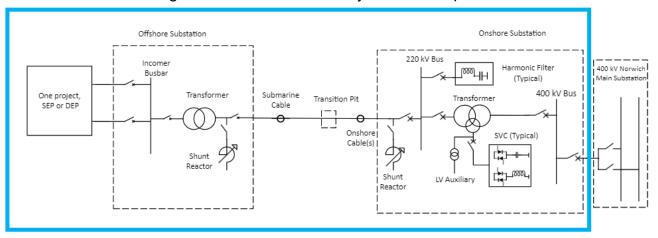


Figure 8-2b: Scenario 1(b) DEP in Isolation – Preliminary Schematic, to be Updated During Detailed Design

# **DEP Works**

Work No. 1B - DEP WTG array area

Work No. 2B - DEP In-field cables

Work No. 3B - DEP Offshore Substation

Platform

Work No. 4B - DEP North and DEP South

export and interlink cables

Work No. 5B - DEP export cable

Work No. 7B - Landfall connection works

Work No. 8B - Onshore connection works

Work No. 9B - Onshore connection works

Works No. 12B - Onshore connection works

Work No. 15B – Onshore HVAC substation

Work No. 16B - Onshore connection works

(to National Grid substation)

Work No. 17B - National Grid substation



# 2.1.3 Scenario 1(c)

- 3. **Figure 8-2** represents Scenario 1(c) as described in the **Draft DCO** (document reference 3.1) [AS-009]:
  - sequential construction of the Sheringham Shoal Extension Project then the Dudgeon Extension Project or vice versa.

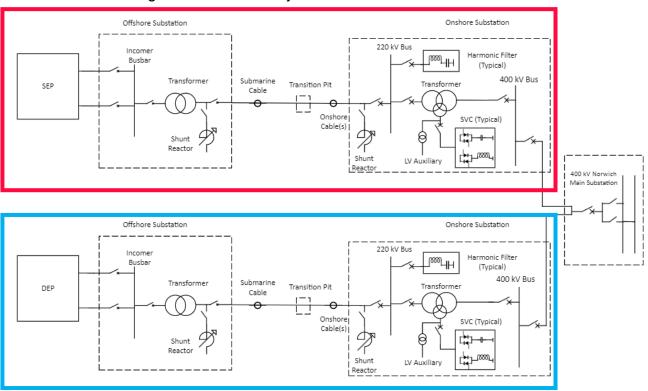


Figure 8-3: Scenario 1(c) SEP and DEP with Separate Transmission Systems Constructed Sequentially – Preliminary Schematic, to be Updated During Detailed Design.

# **SEP Works**

Work No. 1A - SEP WTG array area

Work No. 2A - SEP In-field cables

Work No. 3A - SEP Offshore Substation

Platform

Work No. 4A - SEP export cable

Work No. 5A - SEP export cable

Work No. 7A - Landfall connection works

Work No. 8A - Onshore connection works

Work No. 9A - Onshore connection works

Work No. 12A – Onshore connection works

Works No. 12A - Onshore connection works

Work No. 15A – Onshore HVAC substation

Work No. 16A – Onshore connection works

(to National Grid substation)

Work No. 17A - National Grid substation

connection works

# **DEP Works**

Work No. 1B - DEP WTG array area

Work No. 2B - DEP In-field cables

Work No. 3B – DEP Offshore Substation

Platform

Work No. 4B – DEP North and DEP South

export and interlink cables

Work No. 5B - DEP export cable

Work No. 7B - Landfall connection works

Work No. 8B - Onshore connection works

Work No. 9B - Onshore connection works

Works No. 12B – Onshore connection works

Work No. 15B - Onshore HVAC substation

Work No. 16B - Onshore connection works

(to National Grid substation)

Work No. 17B – National Grid substation



# 2.1.4 Scenario 1(d)

- 4. **Figure 8-3** represents Scenario 1(d) as described in the **Draft DCO** (document reference 3.1) [AS-009]:
  - concurrent construction of the two projects.

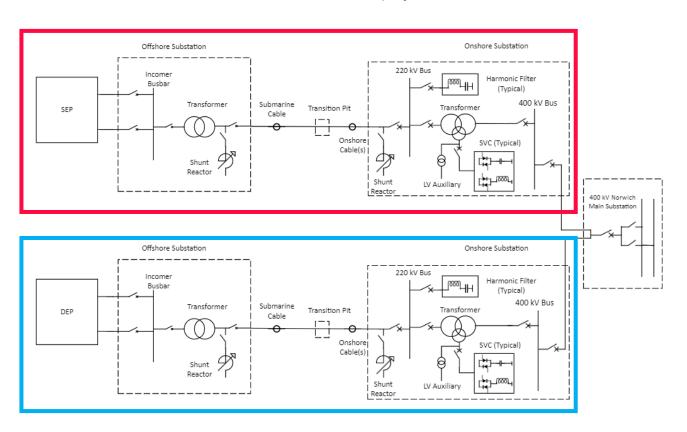


Figure 8-4: Scenario 1(d) SEP and DEP with Separate Transmission Systems Constructed Concurrently – Preliminary Schematic, to be Updated During Detailed Design.

# **SEP Works**

Work No. 1A - SEP WTG array area

Work No. 2A - SEP In-field cables

Work No. 3A – SEP Offshore Substation

Platform

Work No. 4A – SEP export cable

Work No. 5A - SEP export cable

Work No. 7A – Landfall connection works

Work No. 8A - Onshore connection works

Work No. 9A - Onshore connection works

Work No. 12A – Onshore connection works

Works No. 12A - Onshore connection works

Work No. 15A - Onshore HVAC substation

Work No. 16A - Onshore connection works

(to National Grid substation)

Work No. 17A - National Grid substation

connection works

# **DEP Works**

Work No. 1B - DEP WTG array area

Work No. 2B - DEP In-field cables

Work No. 3B - DEP Offshore Substation

Platform

Work No. 4B - DEP North and DEP South

export and interlink cables

Work No. 5B - DEP export cable

Work No. 7B - Landfall connection works

Work No. 8B - Onshore connection works

Work No. 9B - Onshore connection works

Works No. 12B - Onshore connection works

Work No. 15B - Onshore HVAC substation

Work No. 16B - Onshore connection works

(to National Grid substation)

Work No. 17B – National Grid substation



## 2.1.5 Scenario 2

- 5. **Figure 8-4** represents Scenario 2 as described in the **Draft DCO** (document reference 3.1) [AS-009]:
  - the two projects are constructed sequentially and whichever project is constructed first will install the ducts for the second project.

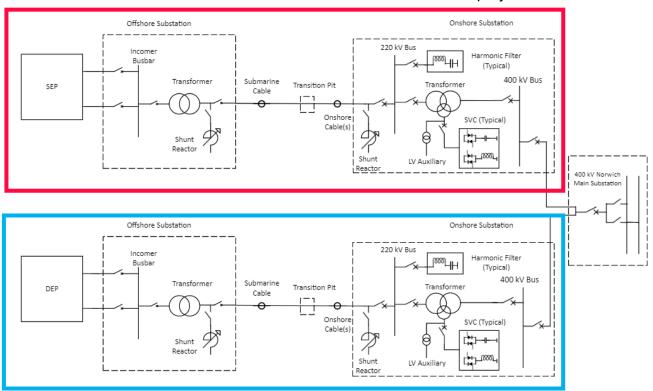


Figure 8-5: Scenario 2 SEP and DEP with Separate Transmission Systems Constructed Sequentially where One Project Installs Ducting for the Other – Preliminary Schematic, to be Updated During Detailed Design.

# **SEP Works**

Work No. 1A - SEP WTG array area

Work No. 2A - SEP In-field cables

Work No. 3A – SEP Offshore Substation

**Platform** 

Work No. 4A - SEP export cable

Work No. 5A - SEP export cable

Work No. 7A - Landfall connection works

Work No. 8A - Onshore connection works

Work No. 9A - Onshore connection works

Work No. 12A - Onshore connection works

Works No. 12A - Onshore connection works

Work No. 15A – Onshore HVAC substation

Work No. 16A – Onshore connection works

Work No. 10A - Originale confrection v

(to National Grid substation)

Work No. 17A - National Grid substation

connection works

#### **DEP Works**

Work No. 1B - DEP WTG array area

Work No. 2B - DEP In-field cables

Work No. 3B – DEP Offshore Substation

Platform

Work No. 4B - DEP North and DEP South

export and interlink cables

Work No. 5B - DEP export cable

Work No. 7B - Landfall connection works

Work No. 8B – Onshore connection works

Work No. 9B - Onshore connection works

Works No. 12B - Onshore connection works

Work No. 15B – Onshore HVAC substation

Work No. 16B - Onshore connection works

(to National Grid substation)

Work No. 17B – National Grid substation



## 2.1.6 Scenario 3

- 6. **Figure 8-5** represents Scenario 3 as described in the **Draft DCO** (document reference 3.1) [AS-009]:
  - either SEL or DEL constructs on behalf of both itself and the other project an
    integrated onshore substation and connection to National Grid's Norwich Main
    Substation (the relevant works are identified in the Order as the scenario 3
    integrated onshore works) and all other onshore and offshore works are
    constructed either concurrently or sequentially.

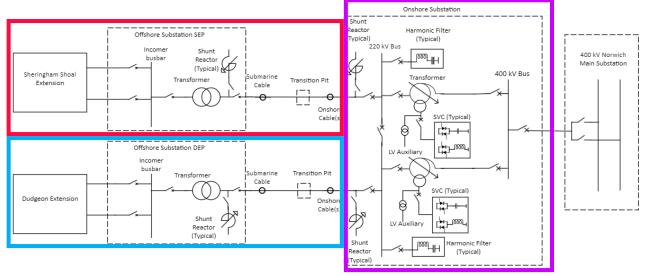


Figure 8-6: Scenario 3 SEP and DEP with an Integrated Onshore Substation Constructed Concurrently – Preliminary Schematic, to be Updated During Detailed Design.

#### **SEP Works**

Work No. 1A - SEP WTG array area

Work No. 2A - SEP In-field cables

Work No. 3A – SEP Offshore Substation Platform

Work No. 4A - SEP export cable

Work No. 5A - SEP export cable

Work No. 7A - Landfall connection works

Work No. 8A - Onshore connection works

Work No. 9A - Onshore connection works

Work No. 12A – Onshore connection

works

Works No. 12A – Onshore connection works

#### **DEP Works**

Work No. 1B - DEP WTG array area

Work No. 2B – DEP In-field cables

Work No. 3B – DEP Offshore Substation Platform

Work No. 4B - DEP North and DEP

South export and interlink cables

Work No. 5B - DEP export cable

Work No. 7B - Landfall connection works

Work No. 8B – Onshore connection

works

Work No. 9B - Onshore connection

works

Works No. 12B – Onshore connection works

#### **SEP and DEP Integrated Works**

Work No. 15C Onshore HVAC

substation

Work No. 16C – Onshore connection works (to National Grid substation)
Work No. 17C – National Grid

substation connection works



## 2.1.7 Scenario 4

- 7. **Figure 8-6** represents Scenario 4 as described in the **Draft DCO** (document reference 3.1) [AS-009]:
  - means either SEL or DEL constructs on behalf of both itself and the other project both the onshore and offshore integrated works including the integrated offshore substation, the integrated onshore substation and the onshore and offshore cables (the relevant works are identified in the Order as the integrated offshore works and the scenario 4 integrated onshore works) and all other onshore and offshore works are constructed either concurrently or sequentially.

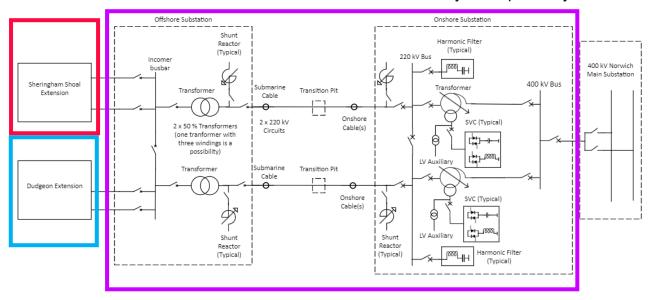


Figure 8-7: Scenario 4 SEP and DEP with an Integrated Transmission System Constructed Concurrently – Preliminary Schematic, to be Updated During Detailed Design.

#### **SEP Works**

Work No. 1A – SEP WTG array

Work No. 2A - SEP In-field cables

# **DEP Works**

Work No. 1B – DEP WTG array area

Work No. 2B - DEP In-field cables

#### **SEP and DEP Integrated Works**

Work No. 3C – Integrated Offshore Substation Platform

Work No. 4C – Integrated OSP export and interlink cables

Work No. 5C - SEP and DEP export cables

Work No. 7C - Landfall connection works

Work No. 8C - Onshore connection works

Work No. 9C – Onshore connection works

Work No. 12C – Onshore connection works

Work No. 15C - Onshore HVAC substation

Work No. 16C - Onshore connection works (to

National Grid substation)

Work No. 17C – National Grid substation