



# Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

## Final Statement of Common Ground with Norwich Airport (Revision D)

**Revision D**

Deadline 8

July 2023

Document Reference: 16.23

Title:	
<b>Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects Final Statement of Common Ground with Norwich Airport</b>	
PINS Document no.: 16.23	
Revision: D	
Document no.: C282-OS-Z-GA-00008	
Date:	Classification
<b>July 2023</b>	<b>Final</b>
Prepared by:	
<b>Royal HaskoningDHV</b>	
Approved by:	Date:
<b>Tom Morris, Equinor</b>	July 2023

## Table of Contents

<b>1</b>	<b>Introduction .....</b>	<b>8</b>
1.1	Background .....	8
1.2	Consultation with Norwich Airport .....	8
1.3	Summary of 'Agreed', 'Not Agreed' and 'In Discussion' Matters .....	9
<b>2</b>	<b>Statement of Common Ground (SoCG) .....</b>	<b>9</b>
2.1	Aviation and Radar.....	9
<b>3</b>	<b>Signatures .....</b>	<b>15</b>
	<b>References .....</b>	<b>16</b>

## Table of Tables

Table 1: Topics included in the final SoCG .....	8
Table 2: Position status key.....	9
Table 3: Summary of consultation with Norwich Airport regarding Aviation and Radar.....	9
Table 4: Topics agreed, in discussion or not agreed in relation to Aviation and Radar .....	11

## Glossary of Acronyms

ACP	Airspace Change Process
APDO	Approved Procedure Designer Organisation
ATC	Air Traffic Control
ATS	Air Traffic Service
ATSMAC	Air Traffic Control Surveillance Minimum Altitude Chart
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication
CAS	Controlled Airspace
CIA	Cumulative Impact Assessment
CTR/A	Control Zone / Area
DCO	Development Consent Order
DEL	Dudgeon Extension Limited
DEP	Dudgeon Offshore Wind Farm Extension Project
EIA	Environmental Impact Assessment
EPP	Evidence Plan Process
ES	Environmental Statement
HMRI	Helicopter Main Route Indicator
HRA	Habitats Regulations Assessment
IFP	Instrument Flight Procedure
km	Kilometre
m	metre
MDD	Mitigation Description Document
MSA	Minimum Sector Altitude
NPS	National Policy Statement
ORRD	Onward Route Radar Data
PEIR	Preliminary Environmental Information Report
PSR	Primary Surveillance Radar
RDP	Radar Data Processor
SEL	Scira Extension Limited
SEP	Sheringham Offshore Wind Farm Extension Project
SMAA	Surveillance Minimum Altitude Area

SNC	South Norfolk Council
SoCG	Statement of Common Ground
TMZ	Transponder Mandatory Zone
UK	United Kingdom
VFR	Visual Flight Rules

## Glossary of Terms

Dudgeon Offshore Wind Farm Extension Project (DEP)	The Dudgeon Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure.
DEP offshore site	The Dudgeon Offshore Wind Farm Extension consisting of the DEP wind farm site, interlink cable corridors and offshore export cable corridor (up to mean high water springs).
DEP North array area	The wind farm site area of the DEP offshore site located to the north of the existing Dudgeon Offshore Wind Farm
DEP South array area	The wind farm site area of the DEP offshore site located to the south of the existing Dudgeon Offshore Wind Farm
DEP wind farm site	The offshore area of DEP within which wind turbines, infield cables and offshore substation platform/s will be located and the adjacent Offshore Temporary Works Area. This is also the collective term for the DEP North and South array areas.
Evidence Plan Process (EPP)	A voluntary consultation process with specialist stakeholders to agree the approach, and information to support, the EIA and HRA for certain topics.
Expert Topic Group (ETG)	A forum for targeted engagement with regulators and interested stakeholders through the EPP.
Offshore substation platform (OSP)	A fixed structure located within the wind farm site/s, containing electrical equipment to aggregate the power from the wind turbine generators and convert it into a more suitable form for export to shore.
Offshore Temporary Works Area	An Offshore Temporary Works Area within the offshore Order Limits in which vessels are permitted to carry out activities during construction, operation and decommissioning encompassing a 200 m (metre) buffer around the wind farm sites and a 750m buffer around the offshore cable corridors. No permanent infrastructure would be installed within the Offshore Temporary Works Area.
Order Limits	The area subject to the application for development consent, including all permanent and temporary works for SEP and DEP.
Sheringham Shoal Offshore Wind Farm Extension Project (SEP)	The Sheringham Shoal Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure.

SEP offshore site	Sheringham Shoal Offshore Wind Farm Extension consisting of the SEP wind farm site and offshore export cable corridor (up to mean high water springs).
SEP wind farm site	The offshore area of SEP within which wind turbines, infield cables and offshore substation platform/s will be located and the adjacent Offshore Temporary Works Area.
Study area	Area where potential impacts from the project could occur, as defined for each individual Environmental Impact Assessment (EIA) topic.
The Applicant	Equinor New Energy Limited. As the owners of SEP and DEP, Scira Extension Limited (SEL) and Dudgeon Extension Limited (DEL) are the named undertakers that have the benefit of the DCO. References in this document to obligations on, or commitments by, 'the Applicant' are given on behalf of SEL and DEL as the undertakers of SEP and DEP.

## 1 Introduction

### 1.1 Background

1. This final Statement of Common Ground (SoCG) has been prepared by Equinor New Energy Limited (the Applicant) and Norwich Airport. It identifies areas of the Sheringham Shoal Offshore Wind Farm Extension Project (SEP) and Dudgeon Offshore Wind Farm Extension Project (DEP) Development Consent Order (DCO) application (the Application) where matters are agreed, not agreed or that remain under discussion between the parties.
2. The Applicant has had regard to the Planning Act 2008: Guidance for the examination of applications for development consent (Department for Communities and Local Government, 2015) when compiling this final SoCG.
3. This final SoCG has been structured to reflect topics of the Application which are of interest to Norwich Airport. The applicable matters considered within this final SoCG apply to Norwich Airport's non-statutory remit which includes safeguarding of aeronautical infrastructure.
4. **Table 1** presents the topics included in the final SoCG with the Applicant and Norwich Airport.

*Table 1: Topics included in the final SoCG*

Topic/Chapter	Reference	Evidence Plan Process (EPP) (Yes/No)
Offshore Aviation	APP 030	No

5. Further detail of those topics included in the Evidence Plan Process (EPP) can be found in the **Consultation Report Appendices** (APP-030).
6. Topic specific matters agreed, not agreed and matters that remain under discussion between the Applicant and Norwich Airport are included within this final SoCG. Matters that are not yet agreed will be the subject of ongoing discussion between the Applicant and Norwich Airport to reach agreement wherever possible, or to refine the extent of disagreement between parties. The notes column of the final SoCG tables provides commentary on these matters.
7. Throughout the final SoCG the phrase "Agreed" identifies any point of agreement between the Applicant and Norwich Airport. The phrase "Not Agreed" identifies any point that is not agreed between the Applicant and Norwich Airport.

### 1.2 Consultation with Norwich Airport

8. The Applicant has engaged with Norwich Airport on the Projects during the pre-Application process, both in terms of informal non-statutory engagement and statutory consultation carried out pursuant to Section 42 of the Planning Act 2008.
9. During the statutory Section 42 consultation, Norwich Airport did not provide comments on the Preliminary Environmental Information Report (PEIR).
10. Further to this, three meetings were held with Norwich Airport through the EPP. These are detailed throughout the SoCG and minutes of the meetings are provided as Appendices to the Consultation Report (APP-030).



### 1.3 Summary of ‘Agreed’, ‘Not Agreed’ and ‘In Discussion’ Matters

11. In order to easily identify whether a matter is ‘agreed’, ‘not agreed’ or ‘in discussion’, the colour coding system set out in **Table 2** has been used.
12. Details on specific matters that are ‘agreed’, ‘not agreed’ or ‘in discussion’ between the Applicant and Norwich Airport are presented in **Table 4**.

*Table 2: Position status key*

Position Status	Position Colour Coding
<b>Agreed</b> The matter is considered to be agreed between the parties.	Agreed
<b>Not Agreed – no material impact</b> The matter is not agreed between the parties; however, the outcome of the approach taken by either the Applicant or Norwich Airport is not considered to result in a material impact to the assessment conclusions and the matter is considered to be closed for the purposes of this SoCG.	Not Agreed – no material impact
<b>Not Agreed – material impact</b> The matter is not agreed between the parties and the outcome of the approach taken by either the Applicant or Norwich Airport is considered to result in a materially different impact to the assessment conclusions.	Not Agreed – material impact
<b>In discussion</b> The matter is neither ‘agreed’ nor ‘not agreed’ and is a matter where further discussion is required between the parties (e.g. where documents are yet to be shared with Norwich Airport).	In discussion

## 2 Statement of Common Ground (SoCG)

13. A summary of the consultation undertaken to date with Norwich Airport and the matters agreed, in discussion or not agreed (based on discussions and information exchanged between the Applicant and Norwich Airport during the pre-application and examination phases of the Application) are set out below for each of the final SoCG topic areas.

### 2.1 Aviation and Radar

*Table 3: Summary of consultation with Norwich Airport regarding Aviation and Radar*

Date	Contact Type	Topic
<b>Pre-Application</b>		
12 <sup>th</sup> October 2020	Letter	<ul style="list-style-type: none"> <li>• Baseline Environment</li> <li>• Norwich Airport Air Traffic Control (ATC) Primary Surveillance Radar (PSR) system</li> <li>• Helicopter Main Route Indicators (HMRI)</li> </ul>

Date	Contact Type	Topic
4 <sup>th</sup> February 2022	eMeeting	<ul style="list-style-type: none"> <li>Norwich Airport ATC PSR system</li> <li>Norwich Airport ATC Surveillance Minimum Altitude Chart (ATCSMAC)</li> <li>HMRIs</li> <li>Mitigations</li> </ul>
28 <sup>th</sup> April 2022	eMeeting	<ul style="list-style-type: none"> <li>Norwich Airport ATCSMAC</li> <li>HMRIs</li> </ul>
17 June 2022	eMeeting	<ul style="list-style-type: none"> <li>Norwich Airport ATCSMAC</li> </ul>
12 <sup>th</sup> July 2022	eMeeting	<ul style="list-style-type: none"> <li>Norwich Airport ATCSMAC</li> </ul>
<b>Post-Application</b>		
1 <sup>st</sup> March 2023	eMeeting	SoCG Discussions
22 <sup>nd</sup> March 2023	eMeeting	SoCG Discussions
20 <sup>th</sup> April 2023	eMeeting	SoCG Discussions
30 <sup>th</sup> May 2023	eMeeting	SoCG Discussions
23 <sup>rd</sup> June 2023	Visit to Norwich Airport	SoCG Discussions
3 <sup>rd</sup> July 2023	email	Updated IFP Assessment provided
11 <sup>th</sup> July 2023	eMeeting	SoCG Discussions
14 <sup>th</sup> July 2023	email	Updated IFP Assessment provided

**Table 4: Topics agreed, in discussion or not agreed in relation to Aviation and Radar**

ID	The Applicant Position	Norwich Airport Position	Position Summary
<b>EIA – Policy and Planning</b>			
1	<p>The assessment of potential impacts upon Aviation and Radar has been made with specific reference to the relevant National Policy Statements (NPS).</p> <p>In addition to the NPS, legislation, policy and guidance applicable to the assessment of Aviation and Radar includes The Air Navigation Order (ANO) 2016 (amended 2022) Civil Aviation Publication (CAP) 393 and other related / associated CAPs.</p>	<p>The assessment of potential impacts upon Aviation and Radar has been made with specific reference to the relevant NPS.</p> <p>In addition to the NPS, legislation, policy and guidance applicable to the assessment of Aviation and Radar includes The ANO 2016 (amended 2022) (Civil Aviation Publication (CAP) 393.</p>	Agreed
<b>EIA – Baseline Environment</b>			
2	<p>The airspace within, above and surrounding the DEP and SEP offshore sites is used by both military and civil registered aircraft which observe the airspace rules according to the classification of airspace they are operating in as follows:</p> <ul style="list-style-type: none"> <li>• Glass G uncontrolled airspace: any aircraft can operate in an area of uncontrolled airspace without any mandatory requirement to be in communication with ATC. Pilots of aircraft operating under Visual Flight Rules (VFR) in Class G uncontrolled airspace are ultimately responsible for seeing and avoiding other aircraft, terrain and obstructions.</li> <li>• Class A, C and D Controlled Airspace (CAS): all aircraft operating in this airspace must be in receipt of an Air Traffic Service (ATS).</li> </ul>	<p>Norwich Airport is situated in Class D Controlled Airspace: All Aircraft operating in this airspace must be in receipt of an ATS.</p>	Agreed
<b>EIA – Assessment Methodology</b>			
3	<p><b>ES Chapter 5 - EIA Methodology</b> [APP-091] provides a summary of the general impact assessment methodology applied to DEP and SEP. <b>ES Chapter 15 – Aviation and Radar</b> [APP-101] confirms the methodology used to assess the potential impacts on Aviation and Radar, consistent with that presented in Section 1.6 of the Scoping Report.</p>	<p>Chapter 5 EIA Methodology provides a summary of the general impact assessment methodology applied to DEP and SEP. Chapter 15 confirms the methodology used to assess the potential impacts on Aviation and Radar,</p>	Agreed

ID	The Applicant Position	Norwich Airport Position	Position Summary
		consistent with that presented in Section 1.6 of the Scoping Report.	
<b>EIA – Project-Alone Assessment Conclusions</b>			
4	<p>The Norwich Airport PSR will theoretically detect turbines within SEP and DEP to varying degrees, with SEP having the greatest effect to radar systems due to its geographical location closer to onshore radar system. The operation of the projects in isolation or together will also have a detrimental effect to the radar system.</p> <p>The Norwich PSR and to a certain extent the Indra Radar Data Processor (RDP), filter out known wind farms at Scroby Sands &amp; Sheringham Shoal. Further wind farm development will require modelling and if necessary, re-configuration of the Norwich Airport PSR and / or RDP by the radar and / or RDP manufacturer. Consultation with the airport safeguarding team is ongoing to reach agreement on the best mutually agreeable solution to remove the predicted impact created by the projects.</p>	<p>Potential impacts on the following Norwich Airport assets:</p> <ul style="list-style-type: none"> <li>• ATC PSR. Document reference 6.3.15.1 states SEP and DEP South are theoretically highly likely to be detectable by the Norwich Airport PSR and intermittent detection of the western area of DEP North cannot be ruled out. Radar detection of the operational wind turbines by the Norwich Airport PSR will create radar clutter on Norwich Airport radar displays. This situation would be unacceptable to Norwich Airport.</li> </ul>	Agreed
5	<p>Theoretically SEP and DEP operational wind turbines would all be highly likely to be detectable by the NATS Claxby and Cromer PSRs. Norwich Airport also utilises data from the Cromer PSR and therefore any mitigation applicable to that radar system will also benefit the end user at Norwich Airport.</p> <p>NATS has previously suggested a preferred mitigation solution for other offshore developments in the Southern North Sea (SNS) which will be applicable for SEP and DEP. If applied this mitigation will remove wind turbine related impacts from SEP and DEP on the Claxby and Cromer PSRs. The NATS preferred mitigation solution will require two stages – blanking of the affected radar systems; and an application to the UK regulator (the Civil Aviation Authority (CAA)) under an Airspace Change Process (ACP) proposal detailed in CAP 1616 (CAA, 2020) to establish a Transponder Mandatory Zone (TMZ).</p>	<p>Onward Route Radar Data (ORRD) Feed – Document reference 6.3.15.1 states that the SEP and DEP projects will theoretically be detectable by the NATS Cromer and Claxby PSR, of which Cromer is used by Norwich Airport as a backup to the on-site PSR. Any mitigation agreed with NATS has to be acceptable to Norwich Airport and would be agreed through the NATS issued documentation.</p>	Agreed

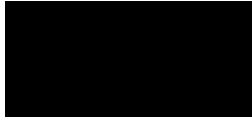
ID	The Applicant Position	Norwich Airport Position	Position Summary
6	<p>An Osprey CAA approved Instrument Flight Procedure (IFP) designer completed an analysis of the Air Traffic Control Surveillance Minimum Altitude Chart (ATCSMAC) <b>Appendix 15.2 - Surveillance Minimum Altitude Chart Analysis</b> [APP-203] which has confirmed, with the current projected maximum blade tip height in place and a requirement for at least 300m minimum obstacle clearance, the northern sector MSA minima would be breached resulting in a requirement for the MSA ATCSMAC depicted minima to be raised to 2100ft.</p> <p>The raising of the MSA would require the ATCSMAC to be revised. To allow the continuation of the current level of service an operational amendment of the ATCSMAC dimensions would be favourable (lateral limits of the Surveillance Minimum Altitude Area (SMAA) may be altered and/or sectorised to take account of obstacles and local operational procedures).</p> <p>The aerodrome licence holder, through its Approved Procedure Designer Organisation (APDO) is responsible for the ATCSMAC. The aerodrome licence holder or representative acting on the licence holder's behalf is responsible for the initial design, routine maintenance and periodic review of their aerodrome's ATCSMAC. An amendment to an ATCSMAC is subject to CAA approval.</p> <p>Operational amendments should be issued at any time when significant change occurs. Amendments to the MSA and / or ATCSMAC would be implemented once Equinor confirm the height of turbines tips to be installed at SEP and DEP.</p> <p>There is allowance within CAP-777, when operationally desirable, for the nominal standard dimensions to be modified or adapted to provide optimum ATC vectoring profiles with regard to local terrain, traffic flows and airspace arrangements. The ATCSMAC for Norwich Airport is presently a non-standard dimension (encompassing mast (679) to the southwest of the airport).</p>	<p>ATCSMAC – Document reference 6.3.15.2 states that the proposed wind farm extensions at Sheringham and Dudgeon South would impact both the ATCSMAC and the Minimum Safe Altitude (MSA).</p> <p>Further analysis (<b>Instrument Flight Procedures Assessment for Norwich Airport (Revision B)</b> [document reference 19.22] has been completed confirming that there would be no effect to the Norwich Airport IFPs.</p> <p>The raising of the MSA would require the ATCSMAC to be revised. To allow the continuation of the current level of service an operational amendment of the ATCSMAC dimensions would be favourable (lateral limits of the Surveillance Minimum Altitude Area (SMAA) may be altered and/or sectorised to take account of obstacles and local operational procedures).</p> <p>The aerodrome licence holder, through its Approved Procedure Designer Organisation (APDO) is responsible for the ATCSMAC. The aerodrome licence holder or representative acting on the licence holder's behalf is responsible for the initial design, routine maintenance and periodic review of their aerodrome's ATCSMAC. An amendment to an ATCSMAC is subject to CAA approval.</p> <p>Operational amendments should be issued at any time when significant change occurs. Amendments to the MSA and / or ATCSMAC would be implemented once Equinor confirm the height of turbines tips to be installed at SEP and DEP.</p> <p>There is allowance within CAP-777, when operationally desirable, for the nominal standard dimensions to be modified or adapted to provide optimum ATC vectoring profiles with regard to local terrain, traffic flows and</p>	Agreed

ID	The Applicant Position	Norwich Airport Position	Position Summary
		airspace arrangements. The ATCMSAC for Norwich Airport is presently a non-standard dimension (encompassing mast (679) to the southwest of the airport).	
<b>Draft DCO / Outline Management Plans / Mitigation and Monitoring</b>			
7	<p>Wording of Schedule 2, Part 1, Requirement 28 is sufficient to secure any necessary mitigation and avoid unacceptable impacts on the Claxby and Cromer PSRs. This is also described in the Schedule of Mitigation.</p> <p>Blanking of the affected PSR together with an extension of the Greater Wash TMZ would mitigate the predicted affect to the Claxby and Cromer PSRs.</p> <p>With reference to the impacts on Norwich Airport’s PSR described at ID4, the Applicant is committed to reaching agreement with Norwich Airport and the manufacturer on a final solution to mitigate the predicted impact.</p> <p>Mitigation options relating to the impact on the MSA and the requirement to make an operational amendment to the ATCSMAC, as detailed at ID6, are contained within <b>Instrument Flight Procedures Assessment for Norwich Airport (Revision B)</b> [document reference 19.22].</p>	<p>Wording of Schedule 2, Part 1, Requirement 28 is sufficient to secure any necessary mitigation and avoid unacceptable impacts on the Claxby and Cromer PSRs.</p> <p>Blanking of the affected PSR together with an extension of the Greater Wash TMZ would mitigate the predicted effect to the Claxby and Cromer PSRs.</p> <p>Norwich Airport will continue to work with the Applicant to reach agreement on a suitable solution to mitigate the predicted impacts to Norwich Airport’s PSR and, with respect to the impact on the MSA, acknowledges the mitigation options available as presented in the IFP Assessment (<b>Instrument Flight Procedures Assessment for Norwich Airport (Revision B)</b> [document reference 19.22]).</p>	Agreed

### 3 Signatures

14. The above final Statement of Common Ground is agreed between Equinor New Energy Limited and Norwich Airport on the day specified below.

Signed:



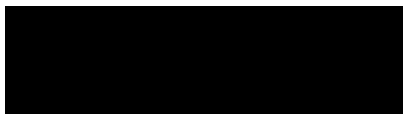
Print Name: Richard Pace

Job Title: Managing Director

Date: 17 July 2023

Duly authorised for and on behalf of **Norwich Airport Limited**

Signed:



Print Name: Kari Hege Mørk

Job Title: Project Director

Date: 17 July 2023

Duly authorised for and on behalf of **Equinor New Energy Limited**

## References

Department for Communities and Local Government (2015) Planning Act 2008: Guidance for the examination of applications for development consent. [Online] Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/418015/examinations\\_guidance-\\_\\_final\\_for\\_publication.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/418015/examinations_guidance-__final_for_publication.pdf). Accessed 05/07/2022.