



**SCOTTISHPOWER
RENEWABLES**

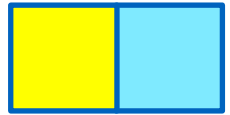
East Anglia ONE North and East Anglia TWO Offshore Windfarms

Applicants' Comments on A1094 Air Quality Evidence

Applicants: East Anglia ONE North Limited and East Anglia TWO Limited
Document Reference: ExA.AS-2.D2.V1
SPR Reference: EA1N_EA2-DWF-ENV-REP-IBR-001124

Date: 17th November 2020
Revision: 001
Author: Royal HaskoningDHV

Applicable to East Anglia ONE North and East Anglia TWO



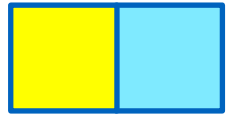
Revision Summary				
Rev	Date	Prepared by	Checked by	Approved by
001	17/11//2020	Paolo Pizzolla	Ian MacKay/ Lesley Jamieson	Rich Morris

Description of Revisions			
Rev	Page	Section	Description
001	n/a	n/a	Final for submission at Deadline 2



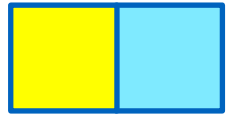
Table of Contents

1	Introduction	1
2	The Applicants' Comments	2
3	References	4



Glossary of Acronyms

DCO	Development Consent Order
Defra	Department for Environment, Food and Rural Affairs
EIA	Environmental Impact Assessment
HGV	Heavy Goods Vehicle
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxide
PM _{2.5}	Particulate Matter (with an aerodynamic diameter of 2.5 µm or less)
PM ₁₀	Particulate Matter (with an aerodynamic diameter of 10 µm or less)
SEAS	Suffolk Energy Action Solutions
VOC	Volatile Organic Compounds



Glossary of Terminology

Applicants	East Anglia TWO Limited / East Anglia ONE North Limited
East Anglia ONE North project	The proposed project consisting of up to 67 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
East Anglia TWO project	The proposed project consisting of up to 75 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
Onshore substation location	The proposed location of the East Anglia TWO / East Anglia ONE North onshore substation.



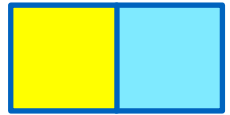
1 Introduction

1. This document has been prepared by East Anglia TWO Limited and East Anglia ONE North Limited (the Applicants) in response to an action point identified by the Examining Authority during the Open Floor Hearing 3 (9th October 2020) of the Examinations for the East Anglia TWO and East Anglia ONE North Development Consent Order (DCO) applications (the Applications).
2. Action 1 arising from Open Floor Hearing 3 (EN010077-002427-EA1N EA2 Hearing Action Points) relates to 'A1094 air quality evidence' and requires Georgina King (on behalf of Suffolk Energy Action Solutions (SEAS)) to submit the evidence and sources referred to in her oral submission to the Examinations at Deadline 1; the Applicants are subsequently required to respond to this evidence at Deadline 2. The Applicants have reviewed the A1094 air quality evidence document (EN010078-002862-DL1) prepared by Georgina King and herein present their comments.
3. This document is applicable to both the Applications, and therefore is endorsed with the yellow and blue icon used to identify materially identical documentation in accordance with the Examining Authority's procedural decisions on document management of 23rd December 2019 (PD-004). Whilst this document has been submitted to both Examinations, if it is read for one project submission there is no need to read it for the other project submission.

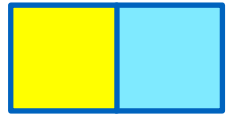


2 The Applicants' Comments

4. The A1094 air quality evidence document (EN010078-002862-DL1) focusses on the proposed use of the A1094 to access the onshore substation locations for the East Anglia TWO project and the East Anglia ONE North project (the Projects). After describing the 'logistical shortcomings' of the A1094, the document discusses the potential for construction traffic associated with the Projects to generate air pollutants. The Applicants' comments refer to this 'Air pollution' section of the document.
5. The Applicants would note that traffic borne air quality impacts are considered fully in **Chapter 19 Air Quality** of the Environmental Statement (APP-067), rather than the 118 page 'Traffic and Transport Environmental Statement' (assumed to be **Chapter 26 Traffic and Transport** (APP-074)) referred to in the A1094 air quality evidence document (EN010078-002862-DL1).
6. **Chapter 19** (APP-067) considers the impact of emissions from road vehicles (principally nitrogen dioxide (NO₂) and particulate matter with an aerodynamic diameter of 10 µm or less (PM₁₀) and of 2.5 µm or less (PM_{2.5})). These are the main pollutants to human health generated by projects of the nature being proposed by the Applicants. Construction of the Projects would potentially commence in 2023 and the Defra (2019) forecasted background pollution projections for that year are used in **Chapter 19** (APP-067). The assessment shows that pollutant concentrations along the A1094 will be 'well below' (i.e. less than 75% of) the respective statutory air quality Objectives in this area, even with the road traffic emissions that would be generated by the Projects. The impact of emissions from development-generated traffic are considered to be 'negligible', and therefore 'not significant' in Environmental Impact Assessment (EIA) terms. Furthermore, the Applicants have committed to requiring contractors to use Euro VI emission standard heavy goods vehicles (HGVs) (the highest emission standard currently in use), which will minimise pollutant emissions insofar as possible.
7. With specific regard to ozone, it should be noted that this is not a carcinogen; its effects on human health are mainly associated with respiratory irritation (Air Quality Expert Group, 2009). It is not emitted directly, but is formed in the troposphere by chemical and photochemical reactions. Concentrations of ozone are typically lower in urban areas as any ozone present is 'scavenged' by chemical reactions with oxides of nitrogen (NO_x) and volatile organic compounds (VOCs) emitted as by-products of fuel combustion. Ozone concentrations therefore tend to be higher in more rural areas where there are fewer pollution sources, particularly as, due to the nature of its formation in the atmosphere, it can be formed at notable distances from the emission of its precursors. Ozone



concentrations in the UK can therefore be greatly influenced by ozone from mainland Europe. As such, ozone is considered a regional pollutant. To reduce concentrations of ozone across the UK, a reduction in the formation of ozone precursors (i.e. NO_x and VOCs) on a wide geographic scale is required. In **Chapter 19** (APP-067) the Projects are shown to have a negligible impact on local air quality, and therefore will not materially increase the quantity of ozone precursors in the atmosphere and so are unlikely to lead to significant ozone generation within the study area.



3 References

Air Quality Expert Group (2009). Ozone in the United Kingdom.

Department for the Environment Food and Rural Affairs (2019). Background Mapping Data [Online] Available at: < <http://uk-air.defra.gov.uk/data/laqmbbackground-maps?year=2011>