

OUR REF S6152.23/CBW/CWI YOUR REF 5 September 2025

National Infrastructure Planning Temple Quay House 2 The Square Bristol BS1 6PN

Dear Sir, Madam

Five Estuaries Offshore Windfarm Project (the "Project")
Application Ref: EN010115
East Anglia TWO Limited's Response to the Secretary of State's Consultation Letter

We refer to the above and confirm we are instructed by East Anglia TWO Limited ("**EA2**"). This submission is in response to the Secretary of State's consultation letter dated 21 August 2025.

1. Background

- 1.1 EA2 has tried to engage with the Applicant on wake effects since the submission of its Relevant Representation (RR-022) and requested the Applicant provide a wake effects assessment in its Written Representation at Deadline 2 (REP2-079).
- 1.2 During the Examination, EA2 continued to maintain that there is an obligation on the Applicant to assess wake effects and that the Applicant is best placed to provide a wake loss assessment given information used to produce such an assessment is not in the public domain (REP4-072, REP4-073, AS-070, REP6-079, REP7-116 and REP8-038). EA2 even offered to share data with the Applicant and to agree a set of assumptions on which a wake effects assessment could be made (REP4-073) or for the Applicant to disclose information using confidentiality undertakings or by disclosing it directly to an independent third party consultant (AS-070 and REP6-079), the Applicant refused both of these offers.
- 1.3 EA2 repeatedly requested engagement from the Applicant on wake effects but the Applicant chose not to engage on the matter, stating that "an assessment of wake effects is not required to be carried out" (REP3-024), a position they maintained throughout the entirety of the Examination.
- 1.4 Given the Applicant was refusing to engage on the matter, EA2 offered to the Examining Authority to provide a wake effects assessment based on assumed layouts and turbine sizes, noting that these might differ from what is proposed by the Applicant (REP4-073). The Examining Authority in their Request for Further Information Letter dated 13 December 2024 (PD-019) requested that EA2 submit a wake effects assessment which was prepared by an independent expert, DNV, and submitted by EA2 at Deadline 6 (REP6-079).
- 1.5 The Applicant's late decision to provide their own wake effects assessment, one month before the Secretary of State is due to make their decision, is unhelpful to all involved. EA2, and indeed other Interested Parties should they wish, have not had the chance to enter meaningful engagement with the

- Applicant on this late submission, nor is there now time for EA2's comments on the assessment (see section 2 below) to be taken into account for a more reliable assessment to be produced.
- 1.6 EA2 is a wholly owned subsidiary of ScottishPower Renewables (UK) Limited. East Anglia TWO Offshore Wind Farm was consented at the same time as its sister offshore wind project, East Anglia ONE North Offshore Wind Farm, which is located to the north-east of East Anglia TWO Offshore Wind Farm. It too will be impacted by the wake effects of the Project. It is, however, acknowledged, that the effects will be far smaller and the representations made on wake effects have focused solely on circumstances where the impact would be material to the Project. That is the case with the East Anglia TWO Offshore Wind Farm which is located just over 5km from the Project boundary. This is in contrast to the current buffer of 7.5km set by The Crown Estate (although The Crown Estate's buffer does not preclude the need for an assessment where it is likely that an effect will occur). Additionally, the Project has sought a maximum wind turbine tip height of 370m (LAT) compared to East Anglia TWO Offshore Wind Farm's maximum tip height of 282m (LAT).

2. Applicant's Wake Effects Assessment

- 2.1 EA2 were provided with a copy of the Applicant's wake effects assessment on Tuesday 19 August and have undertaken an initial review of the document.
- 2.2 The document that was received was a 13 page summary document which apparently reported outturns of a number of assessments. It appears that the modelling/assessment appears to be undertaken internally by the Project team. There is no evidence of the appointment of an independent or professional organisation. This is in contrast with the independent assessment produced by EA2 during the Examination (Annex 8 of REP6-079). There are many reasons for having an independent party undertake such exercises. This is particularly important in circumstances where the project has not published even the basic data on which the modelling is undertaken. Against that background, very limited weight could attach to this type of information.
- 2.3 In terms of the assessment:
 - 2.3.1 It appears the assumption relating to the layout of and the wind turbine size for East Anglia TWO Offshore Wind Farm are not accurate. This undermines the whole premise of the modelling. The layout used for the Five Estuaries Project has not even been provided.
 - 2.3.2 The wind data in relation to the modelling has not been provided. It did not even include a wind rose. It is stated to be based on Greater Gabbard met mast data, but with "notable wind shear correction for height". It has not set out the basis on which the correction has been undertaken.
 - 2.3.3 It appears that three different models have been used, but no information has been provided on their parameterisation. It appears that one of the models used (W) is an internal one and cannot be reproduced. Another model has been "corrected". It appears these two models result in higher impacts of EA2 on the Project rather than the other way round.
- 2.4 It appears that some of the modelling appears to be conducted in order to run a line of argument that the wake effects from East Anglia TWO Offshore Wind Farm will be greater on the Project rather than the other way round. Such information is wholly irrelevant to the issue before the Secretary of State. The issue is a very simple one: what is the effect that the Project would have on the consented East Anglia TWO Offshore Wind Farm. Paragraph 2.8.197 of EN-3 states:
 - "Where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities."
- 2.5 The key imperative of any assessment is the assessment of the impact that the proposed Project would have on East Anglia TWO Offshore Wind Farm. The rest of the information is an attempt to introduce

irrelevant arguments at this very late stage of the process. As the Secretary of State has noted in paragraph 4.165 of the Morgan Offshore Wind Project Generation Assets decision letter: "This issue could and should have been properly addressed during the examination by reasonable parties acting collaboratively, rather than adopting entrenched positions."

3. Requirement

- 3.1 The Secretary of State will note that EA2 made an additional submission on 7 August 2025 regarding the drafting of a potential wake effects requirement following the Mona Offshore Wind Farm ("**Mona**") decision.
- 3.2 Since this additional submission was made by EA2, there has been further consideration amongst various offshore wind parties of the terms of the wake effects requirement (Requirement 29(2)) in the Mona Offshore Wind Farm Order 2025 (the "Mona Requirement") and it is understood that the terms of the Mona Requirement were largely drafted by the Mona applicant (Mona Offshore Wind Limited). EA2 identified various issues with this in their additional submission mentioned above. It is understood that the Ørsted IPs (which represent the views of a group of six owners of offshore windfarms on the West Coast of the UK, within the East Irish Sea) and Morecambe Offshore Windfarm Ltd entered into detailed discussions following the Mona decision to discuss wake effects plans. It is understood that after their discussions, they have been able to agree the terms of a revised wake mitigation requirement.
- 3.3 EA2 have had the opportunity to review the proposed revised Morcambe wake mitigation requirement and the justification for it and EA2 agree that it provides a more effective process for dealing with wake effects and would support its imposition here. As such, proposed wording for a wake effects requirement specific to the Project is included at Appendix 1.
- Additionally, to ensure that any wake effects plan is accommodated within the Design Plan which must be submitted to the licensing authority for approval under the Deemed Marine Licence Generation Assets, the following wording is also required to be added at the very end of the current wording at Schedule 10, Part 2, paragraph 12(1)(a):
 - "and any wake effects plan approved by the Secretary of State in accordance with requirement [X]."
- 3.5 An extract from the joint submission made on Morecambe Offshore Windfarm Generation Assets project is appended to this submission at Appendix 2.

Yours faithfully

For and on behalf of Shepherd and Wedderburn LLP

Appendix 1 FIVE ESTUARIES WAKE EFFECTS REQUIREMENT WORDING

"Wake effects

- X.—(1) No part of any wind turbine generator may be erected as part of the authorised development until either—
- (a) A wake effects plan has been submitted to and approved by the Secretary of State following consultation with East Anglia TWO Limited; or
- (b) The undertaker has provided evidence to the Secretary of State that alternative mitigation for wake effects has been agreed with East Anglia TWO Limited.
- (2) The wake effects plan provided in accordance with paragraph (1)(a) must include:
- (a) details of reasonable steps that have been taken by the undertaker in the final design of the authorised development or reasonable measures which will be applied during the operation of the authorised development (or both) to minimise wake effects on the East Anglia TWO Offshore Wind Farm without materially reducing the capacity of the authorised development;
- (b) a wake effects assessment showing the modelled wake effect of the proposed final design on the East Anglia TWO Offshore Wind Farm;
- (c) details of consultation with East Anglia TWO Limited and the extent of any agreement or disagreement with them on—
- (i) whether any design changes or operational measures could further reduce the wake effect impacts; and (ii) the conclusions of the wake effects assessment under paragraph 2(b).
- (3) Where paragraph (1)(a) applies, the wake effects plan must be implemented as approved and the design plan submitted to the licensing authority under condition 12(1)(a) of Schedule 10 (Deemed Marine Licence Generation Assets) to this Order must be in accordance with any approved wake effects plan.
- (4) For the purposes of this requirement—
- "Éast Anglia TWO Limited" means East Anglia TWO Limited or such other party which has the benefit of constructing and operating the offshore wind turbines authorised by the East Anglia TWO Offshore Wind Farm Order 2022

"East Anglia TWO Offshore Wind Farm" means the East Anglia TWO Offshore Wind Farm as such wind farm was consented at the date of this Order"

Appendix 2 EXTRACT OF THE JOINT MORECAMBE SUBMISSION



Morecambe Offshore Windfarm: Generation Assets The Applicant's Response to Secretary of State Letter and Request for Information

Document Reference: 10.1

Rev 01





7 Wake effects

7.1 Overview

- 65. Paragraphs 14-16 of the SoS's letter are in relation to wake effects and are provided below for reference:
 - 14. The Secretary of State notes the positions of the **Applicant** and Interested Parties ("IPs"), in particular **Ørsted IPs**, in relation to wake effects. The Secretary of State also notes the policy in paragraphs 2.8.197 and 2.8.200 of NPS EN-3, as well as the specific policy on wake effects set out in the draft NPS EN-3 which was recently consulted upon. Those policies state that an assessment of the potential effects of the proposed development on existing or permitted infrastructure or activities should be carried out by the applicant, that all reasonable steps should be taken to minimise impacts, that an applicant should show they have made reasonable efforts to work collaboratively with those who may be impacted, prior to the submission of an application, and that appropriate mitigation should be included in any application and ideally agreed between relevant parties.
 - 15. The Secretary of State requests that the **Applicant** provides, without prejudice, a proposal to secure:
 - o the provision of an assessment (unless the assessment contained in the Wood Thilsted Report commissioned by Ørsted IPs [REP3-112] is agreed by the Applicant (see paragraph 16)); and
 - o further consideration of means to minimise any assessed impacts, including opportunities to work with impacted windfarms to achieve this.
 - 16. The **Applicant** should provide its views on the final version of the Wood Thilsted Report commissioned by Ørsted IPs [REP3-112].

7.2 Response

66. The Applicant acknowledges and accepts the concerns raised by the SoS on the approach to wake assessment in the Mona decision. As was noted by the ExA at para. 5.3.98 of its recommendation report on the Mona decision, 10 the question of wake effects has been a "particularly complex one for applicants and other IPs to navigate" in the absence of a settled evidence base, clear policy direction, methodological guidance and data sharing mechanisms. The Applicant welcomes the clarity provided by the SoS in his decision letter in respect of Mona on the requirements under the current National Policy Statements, which the Applicant notes will be further clarified when the National Policy Statements are revised following the current consultation.

 $^{^{10}} https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010137-002301-Mona\%20Offshore\%20Wind\%20Farm\%20-\%20Recommendation\%20Report.pdf$



- 67. While the Applicant maintains that the position it took in its application documents and throughout examination was appropriate given the guidance, policy and precedent at the time, the Applicant is cognisant that the SoS has now set out clearly what is expected of applicants in future.
- 68. The Applicant notes that the SoS included a wake effect requirement in the Mona DCO to address the concerns raised by the Ørsted IPs during that examination. These concerns were reiterated (albeit with different percentages of impact) in the examinations for both the Morgan Generation Assets and the Morecambe Generation Assets, as the concerns were primarily related to cumulative wake losses on the Ørsted IPs from the three projects together.
- 69. While the Applicant did not carry out its own wake assessment, the Applicant did review and provide comments on the Wake Impact Assessment Report prepared by Wood Thilsted and submitted by the Ørsted IPs (REP3-112) during examination (the "Wood Thilsted Report"). As was confirmed by the Applicant at Issue Specific Hearing 2, and noted in its summary of that Hearing submitted at Deadline 4 (REP4-059), the Applicant considers that there is a high-level wake assessment before the SoS (the Wood Thilsted Report) and that, despite this being a conservative and precautionary document that is not based on detailed design for the Morecambe Project, the Applicant does not argue with the substantive content of that report.
- 70. The Applicant notes that its contribution (0.68%) to a cumulative total additional wake loss in the Wood Thilsted Report is lower than that predicted for either the Mona Project (1.38%) or the Morgan Project (1.64%).
- 71. The Applicant notes that the SoS, in the Mona decision, concluded that the issue of mitigation had not been satisfactorily considered and therefore should be subject to a DCO requirement to ensure that wake effects and mitigation for such effects could be properly considered. The SoS was comfortable that such a requirement would secure any further reasonable steps needed to mitigate the severity of any impacts.
- 72. The Applicant and the Ørsted IPs (which represent the views of a group of six owners of offshore windfarms on the West Coast of the UK, within the East Irish Sea, as outlined in their relevant representations)¹¹ have discussed the SoS request for information dated 21 August 2025 and have agreed the following joint response:

Following the close of the examination for the Project the Applicant and the Ørsted IPs have held several meetings to discuss the remaining areas of disagreement in relation to wake effects, and how the issue of mitigation can be satisfactorily considered and secured through a

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¹¹ As set out in relevant representations (RR-008), (RR-014), (RR-056), (RR-088), (RR-089), (RR-093). It is noted that the Ørsted IPs' position as set out in this joint response reflects the specific nature of the of the interests at play in this region and bilateral discussions with the Applicant to date.



requirement within any DCO granted for the Project. The Applicant and the Ørsted IPs note that the Secretary of State, in the Mona decision, concluded that the issue of mitigation had not been satisfactorily considered and therefore should be subject to a requirement to ensure that wake effects and mitigation for such effects could be properly considered.

The Applicant and the Ørsted IPs agree that a process for addressing wake effects can be secured through a DCO requirement. However, both the Applicant and the Ørsted IPs consider that the wording of the wake effects requirement included in the Mona Offshore Wind Farm Order 2025 requires further clarification to ensure the interests of all parties are properly considered and balanced, particularly regarding what should be included within a wake effects plan and the process that should be followed in respect of this plan. The Applicant and the Ørsted IPs have agreed updated requirement wording which is set out below. This is presented on an accepted (and not without prejudice) basis.

The Applicant and the Ørsted IPs have had extensive engagement regarding the text of this requirement and are confident it creates a more appropriate process for dealing with wake effects than that provided by the Mona Offshore Wind Farm Order 2025. The Applicant and the Ørsted IPs consider that this form of requirement could secure the provision of a robust wake effects plan, following a process which includes consultation with the Ørsted IPs and which specifically requires the provision of an assessment in due course. This requirement also ensures that mitigation for wake effects is not necessarily limited to design mitigation. It is anticipated that these operational measures could further develop (for example, turbine providers may in future adapt their turbine offerings to mitigate for wake effects). It is acknowledged by both the Applicant and the Ørsted IPs that understanding wake effects, and consequently mitigating for those effects, is a rapidly evolving field within industry and therefore the requirement should be 'future-proofed' as far as possible.

Given that no wake effects plan has been agreed to date, and that the actual extent of wake losses cannot yet be modelled as detailed design is not complete, the Ørsted IPs are unable to withdraw their objections. However, it is considered by both the Applicant and the Ørsted IPs that the inclusion of their preferred agreed wake effects requirement could secure the provision of any further reasonable steps that can be taken to mitigate the severity of the impact of wake effects on the Ørsted IPs, through either a wake effects plan consulted upon with the Ørsted IPs or demonstrating that alternative mitigation between the parties has been agreed.



The agreed form of this requirement (using the Mona requirement as the starting point) is as follows, with changes agreed by the Applicant and the Ørsted IPs shown in tracked changes:

"Wake effects

- 29X.—(1) No part of any wind turbine generator may be erected as part of the authorised development until either—
- (a) A wake effects plan has been submitted to and approved by the Secretary of State following consultation with the owners of the existing offshore wind farms; or
- (b) The undertaker has provided evidence to the Secretary of State that alternative mitigation for wake effects has been agreed with <u>each of the</u> <u>owners of the existing @rsted</u> offshore wind farms.
- (2) The wake effects plan provided in accordance with paragraph (1)(a) must include:
- (a) details of reasonable steps that have been taken by the undertaker in the final design of the authorised development or reasonable measures which will be applied during the operation of the authorised development (or both) to minimise wake effects on the existing Orsted offshore wind farms whilst maximising without materially reducing the capacity of the authorised development within the identified technical, environmental and other constraints of the authorised development.:
- (b) a wake effects assessment showing the modelled wake effect of the proposed final design on the existing offshore wind farms;
- (c) details of consultation with the owners of the existing offshore wind farms and the extent of any agreement or disagreement with them on—

 (i) whether any design changes or operational measures could further reduce the wake effect impacts; and
- (ii) the conclusions of the wake effects assessment under paragraph 2(b).
- (3) Where paragraph (1)(a) applies, the wake effects plan must be implemented as approved and the design plan submitted to the licenesing authority under condition 179(1)(a) of schedule 14 of 6 (Deemed Marine Licence under the 2009 Act: Morecambe Offshore Windfarm Generation Assets) to this Order must be in accordance with any approved wake effects plan.
- (4) For the purposes of this requirement—
- "existing <u>Ørsted</u> offshore wind farms" means <u>Barrow offshore wind farm</u>, <u>Burbo Bank extension</u>, <u>Walney Extension</u>, <u>West of Duddon Sands</u>, <u>Walney offshore wind farm or Burbo bank</u> any of the following—
- (a) Barrow Offshore Windfarm;
- (b) Burbo Bank Offshore Windfarm;
- (c) Burbo Bank Extension Offshore Windfarm;
- (d) Walney 1 Offshore Windfarm;



(e) Walney 2 Offshore Windfarm;

(f) Walney Extension 3 Offshore Windfarm;

(g) Walney Extension 4 Offshore Windfarm; and

(h) West of Duddon Sands Offshore Windfarm

as such wind farm was consented at the date of this Order and provided that such wind farm remains operational at the date the application to discharge this requirement is made.

In order that any approved wake effects plan is accommodated within the Design Plan which must be submitted to the licensing authority for approval under the Deemed Marine Licence, the amendment identified in tracked changes below is also required to the current wording of Schedule 6, Part 2, paragraph 9(1)(a):

"Pre-construction plans and documentation

- **9.** (1) No part of the licensed activities may commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved by the MMO in consultation with the relevant statutory nature conservation body, Trinity House, the MCA, the Lake District National Park Authority, the Arnside and Silverdale National Landscape Partnership and the Forest of Bowland National Landscape Joint Advisory Committee, as appropriate—
- (a) a design plan (which accords with the design statement) at a scale of between 1:25,000 and 1:50,000, including detailed representation on the most suitably scaled admiralty chart, which is to be submitted at least six months before the intended commencement of licensed activities to be approved by the MMO setting out proposed details of the authorised project, including the:
- (i) number, dimensions, specification, and foundation type(s) for each wind turbine generator and offshore substation platform;
- (ii) the proposed layout of all wind turbine generators and offshore substation platforms (which shall be in accordance with the recommendations for layout contained in MGN654 and its annexes), including grid coordinates of the centre point of the proposed location for each wind turbine generator and offshore substation platform and providing that such centre point is subject to a maximum up to 55m micro-siting in any direction unless otherwise agreed with the MMO in consultation with the MCA and Trinity House;
- (iii) proposed specification and layout of all cables;
- (iv) proposed location and specification of all other aspects of the authorised project; and
- (v) any archaeological exclusion zones or micro-siting requirements relating to any benthic habitats of conservational, ecological or economic importance constituting reef habitats of principal importance

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as listed under section 41 of the Natural Environment and Rural Communities Act 2006(a),

to ensure conformity with the description of Work No. 1 and Work No. 2 and compliance with conditions 1 and 2 and any wake effects plan approved by the Secretary of State in accordance with requirement []."

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