



SHEPHERD+ WEDDERBURN

POST-HEARING WRITTEN SUBMISSION ON BEHALF OF

(1) BARROW OFFSHORE WIND LIMITED (REF: 20048546) (2) BURBO EXTENSION LTD (REF: 20048544) (3) WALNEY EXTENSION LIMITED (REF: 20048542) (4) MORECAMBE WIND LIMITED (REF: 20048547) (5) WALNEY (UK) OFFSHORE WINDFARMS LIMITED (REF: 20048545) (6) ØRSTED BURBO (UK) LIMITED (REF: 20048543) (THE "ØRSTED IPs")

IN CONNECTION WITH THE Application by Mona Offshore Wind Limited for an Order Granting Development Consent for the Mona Offshore Wind Farm

1. Introduction

- 1.1 This post-hearing written submission is provided in accordance with Deadline 4 of the examination timetable for the application by Mona Offshore Wind Farm Limited (the “**Applicant**”) for an Order under the Planning Act 2008 (the “**Act**”) granting Development Consent for the Mona Offshore Wind Farm (the “**Project**”).
- 1.2 We represent six owners of operational offshore windfarms in the East Irish Sea (as set out relevant representations RR-004, RR-007, RR-047, RR-087, RR-088 and RR-090), who we refer to together as the “**Ørsted IPs**” for the purposes of this submission.
- 1.3 In this submission, we outline the Ørsted IPs’ principal argument relating to wake loss which was raised during Issue Specific Hearing 4 (“**ISH4**”) on 23 October 2024 and briefly address outstanding concerns regarding shipping and navigation.

2. Energy Yield

- 2.1 We note that, in line with action points 22 and 23 arising from ISH4 [EV6-006], and discussions at ISH4, the Ørsted IPs have also submitted:
- 2.1.1 copies of articles and other evidence referred to in their response to ExQ1 [REP3-103]; and
- 2.1.2 a table setting out the expected earliest decommissioning date for each of the Ørsted IPs’ developments.¹
- 2.2 These documents should be read alongside this submission.
- 2.3 As outlined in a number of the Ørsted IPs’ submissions,² the Ørsted IPs are concerned the Project will interfere with the wind speed and/or direction at their developments and will therefore adversely affect energy yields. Preliminary results of modelling commissioned by the Ørsted IPs demonstrates that wake effects will be material. In response to action point 24, the Ørsted IPs note that this modelling indicates all of the Ørsted IPs developments will be impacted by the Project.
- 2.4 The Ørsted IPs’ position is that the Applicant must carry out an assessment of this potential effect and take steps to avoid it. The Ørsted IPs consider this is required by the relevant policy and regulatory framework:
- 2.4.1 primarily, as an effect on an “*other sea user*” under the National Policy Statement for Renewable Energy Infrastructure (**NPS-EN3**);
- 2.4.2 policy SAF-01 – Safeguarding Existing Activity, of the Welsh National Marine Plan; and
- 2.4.3 in the EIA process, as relevant to the Applicant’s climate change risk assessment.

Requirements of the NPS EN3

- 2.5 The NPS-EN3, which is the primary policy for SoS decision making relating to renewable energy NSIPs (alongside NPS-EN1) requires effects of projects on sea users to be assessed and addressed. In particular, the following provisions are relevant:
- 2.5.1 Paragraph 2.8.197 requires that, where a potential offshore wind farm is proposed “*close to existing operational infrastructure or has the potential to affect activities for which a licence has been issued by government*” the Applicant should assess the potential effects on that development.³
- 2.5.2 Paragraphs 2.8.344-2.8.345, which relate to SoS decision making, direct that where a project potentially affects other offshore infrastructure or activity, applicants should

¹ Predicated on a standard 24-year operation and ignores the potential for Ørsted IPs to operate their developments beyond their currently anticipated decommissioning date; the Ørsted IPs do not consider this will require additional consents.

² REP1-072, REP2-104, REP3-10.

³ Refer to para 2.8.179

work with the relevant sector to minimise negative impacts,⁴ and that the SoS should be satisfied that “*the site selection and site design of a proposed offshore wind farm and offshore transmission has been made with a view to avoiding or minimising disruption or economic loss... to other offshore industries*”.⁵

- 2.6 National Policy Statements are constructed with a clear formula, and the policies noted above should be read together. In order for the SoS to exercise decision-making under 2.8.345, the information required relating to the effects of the Project (as outlined in 2.8.197) must be provided. If this examination concludes without such information being provided, the SoS will be in a position where it cannot appropriately apply the policies of the NPS-EN3.

Meaning of “close to” under paragraph 2.8.197

- 2.7 It is non-contentious that the Ørsted IPs’ developments qualify as “*existing operational infrastructure*”. However, the Applicant argues that the Ørsted IPs’ developments are not “*close to*” the Project, as required by the NPS-EN3.
- 2.8 The Applicant appears to rely solely on a study commissioned by TCE for the Round 4 leasing process, as the basis for what should be considered “*close*” under paragraph 2.8.197. However, as the Ørsted IPs have previously set out, that study takes some generic, theoretical offshore wind farm pairs and looks at the balance in total production based on different densities and separation buffers, in order to inform TCE’s process of optimising the seabed. It cannot be relied on in the consenting process which aims to assess actual effects on other users. The 7.5km distance imposed by TCE cannot be interpreted as a fixed buffer distance beyond which adjacent development can no longer be considered ‘close’ from a wake loss perspective, as wake loss is not solely determined by distance.
- 2.9 We submit that what is considered “*close*” must, in a planning setting, be determined with reference to likely effects – there is no other meaningful basis for making this determination.
- 2.10 The Applicant’s interpretation is far too narrow and treats the policy as if it were a statute to be construed accordingly. We consider paragraph 2.8.197 clearly applies policy to both existing operational infrastructure and infrastructure “*where a license has been issued*”. Under the Applicant’s narrow interpretation effects on existing infrastructure only needs to be considered where they are “*close*”, whereas effects on projects which have received the necessary consents but are not yet operational must be assessed regardless of whether they are “*close*” to a proposed development. We consider this points to an overly narrow interpretation of the policy.
- 2.11 The Ørsted IPs have submitted a substantial portfolio of academic evidence which demonstrates that material wake effects can occur at farm-to-farm separation distances greater than 30km. Additionally, preliminary results of independent expert modelling commissioned by the Ørsted IPs demonstrate that the Project will have a material impact ranging between 0.9-1.7% AEP across the developments from Mona alone and between 1.7-5.3% AEP when considered cumulatively with the Morgan and Morecambe projects. To date, the Applicant has chosen not to produce any evidence on this matter. Therefore, an assessment of the wake effects is clearly required.
- 2.12 Until such an assessment is undertaken, the SoS cannot assess whether site selection and design has been made with a view to “*avoiding or minimising disruption or economic loss or any adverse effect on safety*” to other offshore industries. Therefore, the SoS cannot make its decision in accordance with the NPS-EN3 as required by section 104 of the Planning Act 2008.

Lack of specific guidance on wake assessment

- 2.13 The Applicant has referred to lack of singular guidance as grounds for not carrying an assessment of wake effects. The Applicant refers to paragraph 2.8.198 of the NPS-EN3 which states that “*The assessment [of a project’s effects on offshore infrastructure] should be undertaken for all stages of the lifespan of the proposed wind farm in accordance with the appropriate policy and guidance for offshore wind farm EIAs*”.
- 2.14 We do not consider the correct construction of this provision is that where no single industry guidance for assessing an effect is available, an effect does not need to be assessed. Rather,

⁴ Refer to para 2.8.344.

⁵ Refer to para 2.8.345.

this paragraph appropriately indicates that where such guidance is available, it should be followed.

- 2.15 Projects of the scale contemplated by the NSIP consenting process are likely to result in a large variety of potential effects, some of which may not yet be subject to single industry guidance. The purpose of these policies is to ensure that the effects of a project on pre-existing/authorised infrastructure are understood and addressed. Applicants for developments of this significance should be prepared to respond to the potential for such effects, and as directed by the NPS-EN3 should be working with the relevant sector to ensure effects are addressed.
- 2.16 Further, we note there is a significant body of research on wake effects between offshore windfarms (as evidenced by the research submitted by the Ørsted IPs). Specialist consultants who work with the offshore wind industry have developed software and models to assist the industry in understanding energy yield and wake effects. As with other modelling, assumptions require to be made in carrying out such assessments. In that regard, there is the potential to utilise both publicly available and private information to facilitate the modelling of effect. As we have previously submitted, the Applicant is best placed to provide information regarding site layout and information about existing schemes is in the public domain. As indicated at ISH4, there are ways information can be provided which assists in improving the accuracy and robustness of the assessment. This is standard practice in the offshore wind industry and there is no reason why this information should be withheld. Therefore, wake loss is an effect which, practically speaking, can be accurately and robustly assessed.

Support for the Project under NPSs

- 2.17 The Applicant relies on a number of NPS policies which provide support for the Project. The Applicant has relied on these policies for its position that *“To the extent that new large-scale energy development results in minimal energy loss for operational projects, the Applicant submits that the considerable net benefit delivered by the new development should be afforded very great weight in the planning balance”*.⁶
- 2.18 The Ørsted IPs do not dispute that the relevant NPSs provide support for new renewable energy development, in principle. However, these generally supportive policies do not justify non-compliance with specific requirements of the NPSs.
- 2.19 Additionally, we submit that the Applicant’s position that energy losses will be minimal is simply not credible considering the preliminary results of modelling commissioned by the Ørsted IPs which indicates that the wake loss potential impacts will range between 0.9-1.7% AEP across the projects from Mona alone and between 1.7-5.3% AEP when considered cumulatively with the Morgan and Morecambe projects. This is a material impact.

Secretary of State assessment

- 2.20 Having established that, on a proper construction of NPS-EN3, a wake assessment is required and given the Applicant has refused to consider this effect throughout the examination, we consider that the SoS is not currently in a position to be able to undertake the assessment under paragraph 2.8.345.
- 2.21 The level of impact indicated by the preliminary modelling commissioned by the Ørsted IPs is material. However, because the potential for this effect has been dismissed by the Applicant from the outset, it has not been considered during site selection or the design process, and therefore those processes have not been carried out *“with a view to avoiding or minimising disruption or economic loss... to other offshore industries”*. In fact, we consider there is potential that the level of effect predicted has the potential to impact long term decisions on the future viability of the Ørsted IPs’ developments. The SoS should therefore give *“substantial weight”* to this factor in its decision-making, as directed by paragraph 2.8.347.

Welsh National Marine Plan

- 2.22 As flagged by the examining authority during ISH4, policy SAF-01 of the Welsh National Marine Plan is also relevant. The SoS must *“have regard to”* the provisions of the Welsh National Marine Plan in deciding an application for a DCO under section 104(aa) of the Planning Act 2008.

⁶ [REP3-062].

- 2.23 This policy requires, relevantly, that: “Proposals likely to have significant adverse impacts upon an established activity covered by a formal application or authorisation must demonstrate how they will address compatibility issues with that activity.” Compatibility should be demonstrated through compliance with the mitigation hierarchy.
- 2.24 The explanation for this policy notes that it “recognises the investment made by a developer in seeking or gaining a consent and that developer’s legitimate expectation to be able to continue, within reason, to operate. A relatively high weighting of safeguarding therefore applies.”
- 2.25 This policy supports the Orsted IPs’ view that an assessment of the effects of the Project on the Orsted IPs’ developments (as “established activities” under the policy) is required. The purpose of the policy is to safeguard existing activity, by requiring new development to demonstrate its compatibility.
- 2.26 We submit that, without undertaking an assessment of this potential effect (when there is a clear potential for it to occur) the Applicant is not able to demonstrate that the Project is “compatible” with existing activity.

Relevance to EIA Assessment

- 2.27 We submit that wake loss is relevant to the Applicant’s EIA. The Applicant contends that wake loss is not an effect which falls within the scope or requirements of the EIA process. However, the Applicant has submitted a detailed assessment of the benefits the Project will yield in terms of a net reduction in GHG emissions.⁷ The Applicant’s net assessment takes into account GHG emissions arising from the construction of the Project, however, does not account for loss of renewable energy generation from the Ørsted IPs developments. Therefore, its assessment in EIA terms is likely inaccurate. The information presented in the EIA must be accurate in order for the SoS to be able to assess the Project’s benefits and adverse effects, when determining the application.

Other matters

Ørsted IP modelling and practicality of undertaking an assessment

- 2.28 In light of the position the Applicant has taken throughout the examination and in particular at ISH4, the Ørsted IPs have disclosed the wake effect indicated by preliminary modelling. Contrary to the Applicant’s assertions, the predicted effect is material – and could impact long term decisions on the future of the assets. We note that, in the decision on the DCO application for the Awel y Mor project, a predicted wake impact of 2% was sufficiently material to warrant consideration by the examining authority and the imposition of a requirement addressing wake.
- 2.29 Preliminary modelling indicates that the scale of the impact in relation to the Ørsted IPs’ developments is likely to be greater than 2%. The failure for this issue to be properly evaluated represents a gap in the information necessary for decision-making.
- 2.30 The Ørsted IPs have attempted to engage with the Applicant on this issue to no avail. Simply put, the Applicant’s attitude to engagement on this issue has been belligerent. We note this approach is contrary to that directed in the NPS-EN3, in particular at 2.8.200 to “engage with interested parties in the potentially affected offshore sectors early in the pre-application phase of the proposed offshore wind farm, with an aim to resolve as many issues as possible prior to the submission of an application”. We would therefore invite the examining authority to ensure that this matter is properly evaluated so that it can be given appropriate consideration in decision-making.
- 2.31 The Ørsted IPs maintain that modelling of the wake loss impacts of the Project is an exercise which should be undertaken by the Applicant. Regrettably, the Applicant’s attitude towards this issue has been highly dismissive. Therefore, if the Applicant does not agree to an approach for assessing this affect, the Ørsted IPs will work to finalise the preliminary results of their external and independent modelling, with a view to submitting the analysis at deadline 5.
- 2.32 The Ørsted IPs also wish to respond to the Applicant’s contention that an assessment of wake effects is not feasible due to technical complexities and the need for parties to disclose confidential information.

⁷ See F4.2 Environmental Statement - Volume 4, Chapter 2: Climate change [APP-076].

- 2.33 As noted above, industry specialists routinely undertake these assessments. While certain assumptions must be made in carrying out such assessments, these can be made on an educated basis to provide a range of robust likely outcomes. Therefore, the Ørsted IPs consider that an assessment of wake effects is unquestionably possible from a technical perspective.
- 2.34 In respect of the disclosure of confidential information, the Ørsted IPs consider there are a number of ways the parties could manage this risk – for example, through the agreement of NDAs, or through the provision of confidential information to an agreed third party to undertake the analysis. It is noted that similar arrangements exist with other stakeholders in relation to commercially sensitive information (for example, in respect of commercial fisheries).

3. Shipping and Navigation

- 3.1 The Ørsted IPs maintain their concerns in relation to cumulative vessel increases in the area including those associated with the Project. There is a need for some form of coordination between projects in the wider Irish Sea area including existing operational projects beyond the Marine Navigation Engagement Forum, including specific engagement in relation to impacts (positive or negative) on their developments as a result of future case agreements.

Shepherd & Wedderburn LLP

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