

DEADLINE 7

RESPONSE ON BEHALF OF RHYL FLATS WIND FARM LIMITED TO ExQ3

3.19	Applicant, Rhyl Flats Wind Farm Limited (RWF)	<p>Wake effects The ExA notes all representations put forward by the Applicant and RWF in respect of wake effects.</p> <p>To RWF:</p> <p>f) What is the remaining operation period of RWF / when is RWF due to be decommissioned?</p>	<p>Rhyl flats commenced production in February 2011. The current site life is for 20 years with contractual provisions in place for up to 25 years. However, the structural elements are capable of remaining in place for longer than the original design life. It is considered that there is a very high likelihood of the development being in place for in the region of 30 years with the possibility of further extension depending on asset condition.</p>
		<p>g) [REP4-048] states that the construction of Awel y Mŷr would result in a tangible wake loss at Rhyl Flats wind farm of (in the region of) 2%. Is this figure a percentage loss of energy generation from RWF and in the absence of a wake loss assessment how was this figure calculated?; and</p>	<p>The estimate of up to 2% would be a percentage loss of energy production from Rhyl Flats. The figure is a professional opinion of potential impact based on DNV's experience of similar wind farms (in terms of size and distance between the wind farms.) DNV have recently undertaken additional validation work on cluster to cluster wakes, and adjusted their models based on the validations to better represent wake propagation offshore.</p> <p>RWFFL have not commissioned a wake loss assessment. As per previous submissions, this is a matter which requires to be addressed by the applicant and not RWFFL. The purpose of the DNV letter is to demonstrate that wake loss is a real issue here which requires to be addressed by the applicant. It is not a substitute for an actual wake loss assessment.</p>
		<p>h) With reference to NPS EN-3 paragraph 2.6.185, do you consider that this wake loss would be likely to affect the future viability of RWF?</p>	<p>A revenue loss towards the upper end of the 2% range would have a significant impact on the economics of the Rhyl Flats project. This would particularly be the case towards the later years of operation when the project</p>

			<p>will have lost its subsidy revenue and when operating costs will have increased significantly. There is therefore the potential for wake loss impact to affect the viability of Rhyl Flats during the later years of the project.</p>
		<p>To the Applicant and RFWF:</p> <p>i) Please comment on whether NPS EN-3 paragraph 2.6.188 (and draft NPS EN-3 paragraph 2.34.8) would offer a possible solution to the wake effect dispute and if so, please provide some suggested wording for such a requirement; and</p>	<p>Paragraph 2.6.188 raises the potential use of arbitration to resolve adverse impacts on commercial activities. The difficulty with the current dispute is that the applicant denies that they have any responsibility to address the impact of their development on Rhyl Flats, including wake loss impact. They also deny that paragraphs 2.6.176 – 2.6.188 are relevant to assessment of impacts on existing offshore wind farms. It is not clear how arbitration would assist in resolving this point as, fundamentally, it requires the Secretary of State to determine whether the terms of paragraphs 2.6.176 – 2.6.188 apply in relation to assessment of impacts on existing wind farms.</p> <p>However, on the assumption that the Secretary of State agrees that wake loss impact does require to be addressed then where arbitration might be relevant is in relation to the assessment of that impact and determination of appropriate mitigation or compensation.</p> <p>In the absence of any proposals from the applicant, RFWFL has drafted an additional requirement to deal with wake loss. This would require a methodology for assessment of wake loss to be agreed with RFWFL. The assessment would then be carried out in terms of the agreed methodology and compensation paid for loss of revenue. Any dispute arising would be addressed in terms of the arbitration provisions of the DCO. The</p>

			proposed wake loss requirement is attached as Appendix 1 and has previously been supplied to the Applicant.
		j) RFWF suggests potential for up to 2% wake loss as a result of the Proposed Development. Having regard to the remaining operational period of RFWF and any potential effects on its electrical output as a result of such a wake loss, to what degree might this affect the benefits that the Proposed Development could provide in terms of electrical output / renewable energy over its lifetime?	<p>RFWFL has undertaken an initial calculation of the estimated loss of energy production at RF whilst both RF and the Proposed Development are in operation. This is based on the existing lifespan of RF and the timeline proposed by the Applicant for the Proposed Development. On that basis, they would both be in operation together for a period of 5 years. A wake loss of up to 2% would be estimated to result in a loss of up to 26,000 MWh in that period. As explained in 3.19, however, there is the potential for RF to continue operating beyond its current planned lifespan and, if this is the case, wake loss impact would continue into future years.</p> <p>This is only an estimate of loss based on the limited information available to RFWFL which would require to feed into an appraisal of the net benefit from the Proposed Development. As recommended by DNV, in order to provide a more accurate calculation, an actual assessment of wake loss would be required which, to date, the Applicant has refused to undertake.</p>
3.20	Applicant, RFWF	<p>Protective Provisions</p> <p>Notwithstanding wake loss matters, please clarify:</p> <p>a) Whether you expect agreement to be reached on protective provisions before the close of the Examination on all other matters;</p>	Other than in relation to wake loss, it is expected that there will be agreement on the protective provisions other than in relation to some detailed points on the wording of the proposed indemnity as set out in the response to Q3.20 b).
		b) The main areas of outstanding disagreement;	The areas of disagreement currently relate to the wording of the proposed indemnity in paragraph 10 of

			<p>the draft protective provisions. There are 2 points which are currently unresolved. The parties are continuing to discuss matters. RFWFL are hopeful that agreement can be reached on the first point but it is unlikely that agreement can be reached in the second point. The outstanding issues are:-</p> <ol style="list-style-type: none">1) In paragraph 10(1), RFWFL are now generally content with the wording. However, the last revisions made by the applicant adjusted the circumstances in which the indemnity would cover loss as a result of any interruption or reduction in any electricity produced by RFWFL. The effect of the revision is that the indemnity is limited to where the interruption or reduction to electricity production is as a result of damage caused to any apparatus or property of RFWFL. <p>Given that the cable installation works would involve a safety zone around the works, there is the potential for the applicant's works to restrict the ability of RFWFL to access their turbines whilst the applicant's works are ongoing with the consequent potential for loss of electricity production. Whilst the parties will seek to cooperate with each other to try and ensure the coordination of works, it is not acceptable that RFWFL should require to bear the cost of reduced energy production if this is as a result of the Applicant's works. Consequently, paragraph 10(1) requires to be adjusted so that the applicant is required to indemnify RFWFL where there is any interruption or reduction in any</p>
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			<p>electricity produced by RFWFL as a consequence of the applicant's works (and not just where such interruption or reduction is a result of damage to apparatus).</p> <p>2) The applicant has revised the indemnity provisions of paragraph 10(b) to (first) provide that RFWFL is under an obligation to take reasonable steps to mitigate its loss; (second) to limit the applicant's liability to £8million per claim or series of claims.</p> <p>The first revisal to paragraph 10(b) is acceptable to RFWFL but the second revisal is not. The effect of the proposed cap on the indemnity would be that RFWFL would require to pick up the cost of impacts greater than £8m. It is not reasonable to expect a statutory undertaker to pick up such costs where they are a result of the applicant's works. It is noted that none of the other protective provisions which the applicant has proposed for electricity undertakers provide a similar cap for liability. There is no reasonable basis on which such a cap should be required for RFWFL and the cap should therefore be removed.</p>
		<p>c) Implications for the Proposed Development should protective provisions not be agreed; and</p>	<p>Other than on the issue of wake loss, the issues between the parties on the protective provisions are narrow and clearly defined. Both parties will make submissions on their respective positions and it will be for the ExA to make recommendations to the Secretary of State on what form of protective provisions should be included in the DCO for the protection of RFWFL.</p>

		d) Approaches open to the ExA should protective provisions not be agreed.	Other than on the issue of wake loss, the issues between the parties on the protective provisions are narrow and clearly defined. Both parties will make submissions on their respective positions and it will be for the ExA to make recommendations to the Secretary of State on what form of protective provisions should be included in the DCO for the protection of RFWFL.
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Appendix A – Proposed Wake Loss Requirement

Wake Loss

11—(1) Prior to the construction of any wind turbine generators as part of Work No. 1, the undertaker shall submit a methodology to the Company for the carrying out of an assessment of the wake effects of the Authorised Development on the operation of the Rhyl Flats Offshore Wind Farm to identify and quantify the extent of external wake loss to Rhyl Flats Offshore Wind Farm. If the Company does not respond within 28 days then approval is deemed to be given.

(2) Prior to the attachment of blades to any of the wind turbine generators as part of Work No. 1, the undertaker shall will undertake the assessment of assessment of the wake effects of the Authorised Development on the operation of the Rhyl Flats Offshore Wind Farm in terms of the methodology approved, as deemed to have been approved under sub-paragraph (1) and submit this for the approval of the Company. If the Company does not respond within 28 days then approval is deemed to be given.

(3) The undertaker shall indemnify the Company for any loss of electricity generation capacity identified in the assessment of wake loss approved or deemed to have been approved under sub-paragraph (2)