

OFFSHORE WIND ACCELERATOR S4Y3

Clarification Question Responses

TWG-F – Fatigue Resistance of Ground Flush Welds by NDT and FM
(FRGW)

Version 2 June 2022



#	Type	Question	Response
1	General	Reference is made in the ITT Description of Tender document to Annex B of the Tender Certificate. Where is Annex B?	<i>A new Tender Certificate has been published on the Carbon Trust website which contains Annex B.</i>
2	General	Reference in the ITT document is made to "Bidders shall provide Work Package descriptions in the format set out in Annex 2 to this document". Where is Annex 2?	<i>We apologise, Annex 2 does not exist in the ITT Description of Tender document. Please provide work package descriptions in the format set out in section 4 'Work Packages'.</i>
1	Project Specific	Is the expected price range in Section 6.1 inclusive of VAT?	<i>The price range stated is exclusive of VAT.</i>
2	Project Specific	<p>Section 2.2 states the following: "It has been identified that there is an industry notion that ground-flush welds on monopiles may have higher fatigue resistance than the current S-N curves within the standards allow. It appears that the current standards assume a certain size of internal defects within the welds"</p> <p>Is it the Carbon Trust's understanding that this assumption of internal defect size distribution is the only basis for this industry notion? Or is there test data, fatigue experience or in-service experience available to support this view?</p>	<i>This is based on industry experience of the OWA. It is uncertain whether any test data or in-service experience is available to support this view.</i>
3	Project Specific	Is the study focusing on long established welding techniques or newer techniques?	<i>Both newer and more established methodologies should be investigated.</i>
4	Project Specific	Could the Carbon Trust please confirm to what extent free corrosion should be included in the scope?	<i>This should be considered as part of the literature review (WP1) in relation to the assessment of current design practice for FLS assessment of ground-flush welds.</i>

5	Project Specific	<p>What thickness ranges should be considered for the study? A conventional approach would typically gain data focused on lower thickness steel before moving to thicker and inherently more expensive specimens.</p>	<p><i>We will welcome proposals from the bidder as to the approach taken and thicknesses studied.</i></p>
7	General	<p>Are presentations of findings preferred to be in person or remote? If in person, where?</p>	<p><i>Presentation of findings are usually given at Foundations Technical Working Group Meetings which involve Carbon Trust, OWA F-TWG partner representatives and the project contractors.</i></p> <p><i>Recently presentations have been held remotely/virtually due to the Covid-19 pandemic. In the future it is expected that some meetings will be held virtually while others may be held in person or using a hybrid approach. If held in person it is likely these will be held in London, UK at the Carbon Trust's office.</i></p>
8	General	<p>Please provide template for "flash reports" to understand level of detail required (i.e. likely time for completion)</p>	<p><i>The flash report details the project progress on a monthly basis and would require approximately 30-minutes to complete.</i></p>
9	Project Specific	<p>Do carbon trust have access to OEMs willing to actively participate or are bidders to make contact?</p>	<p><i>The Carbon Trust OWA does not have OEM's willing to participate in this project. Bidders are expected to make contact with OEM's if beneficial to support the delivery of this project.</i></p>
10	Project Specific	<p>What range of in-service loadings is of interest from environmental /service conditions?</p>	<p><i>There are not specific conditions in mind; the OWA Foundations Technical Working Group (OWA F-TWG) would welcome proposals from the bidders. If the bidder is successful in progressing to the interview stage then the OWA F-TWG would be open to discussion to inform the range of in-service loadings considered as part of this project.</i></p>

11	Project Specific	What form of weld geometries are of highest interest, similarly, plate thicknesses and angles?	<p>UPDATE 09/06/2022: Investigating ground-flush butt welds on monopiles is of primary interest for this study.</p> <p><i>If the bidder is successful in progressing to the interview stage then the OWA F-TWG would be open to discussion around the form of welded geometries to inform the range of in-service loadings considered as part of this project.</i></p>
12	Project Specific	What fabrication techniques are being focused on in this report regarding the welding of the monopiles and supports?	<p><i>There are not specific fabrication techniques in mind; the OWA Foundations Technical Working Group (OWA F-TWG) would welcome proposals from the bidders.</i></p>
13	Project Specific	Is the majority of the welding completed in a fabrication shop ahead of assembly offshore (corrosion concerns)?	<p><i>Yes.</i></p>
14	Project Specific	With regards to the Fracture Mechanics assessment is there a preference to a particular standard?	<p><i>There is not a preference. The OWA Foundations Technical Working Group (OWA F-TWG) would welcome proposals from the bidders.</i></p>

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